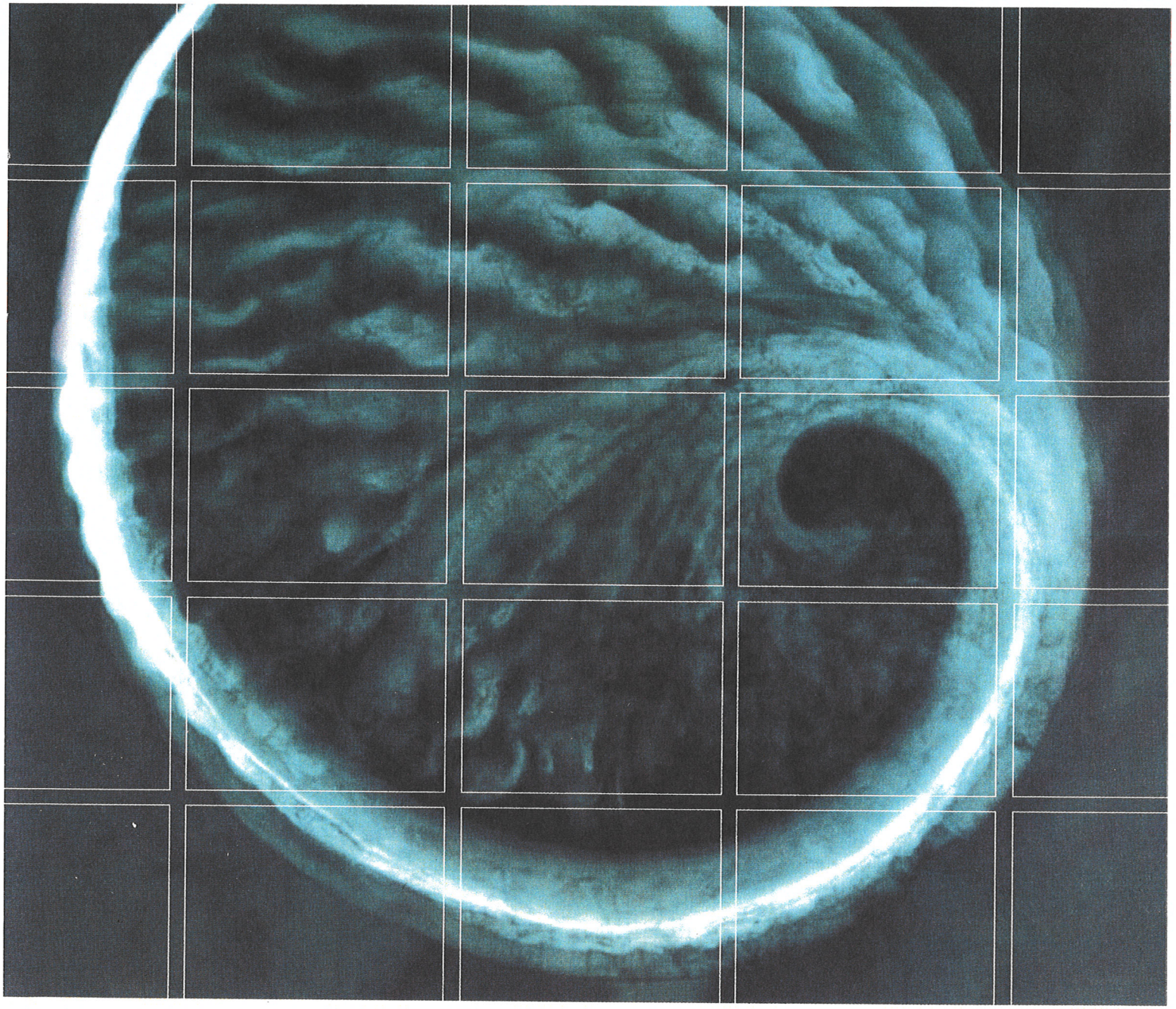


Semiannual Monitoring Report: First Semiannual Event 2006

Houston Wood Preserving Works
Houston, Texas

Union Pacific Railroad Company

July 19, 2006

www.erm.com

Delivering sustainable solutions in a more competitive world

ERM

Environmental
Resources
Management

15810 Park Ten Place
Suite 300
Houston, Texas 77084
(281) 600-1000
(281) 600-1001 (fax)

July 19, 2006

Dr. Ata-ur Rahman
Permits Section
Industrial and Hazardous Waste Division
Texas Commission on Environmental Quality
12100 Park 35 Circle, MC 130
Austin, Texas 78753

Project No: 0014419

Subject: Transmittal of the Semiannual Monitoring Report: First Semiannual Event 2006
Houston Wood Preserving Works, Houston, Texas

Dear Dr. Rahman:

On behalf of Union Pacific Railroad (UPRR), two copies of the referenced report are enclosed pursuant to the requirements of Section VII.C.2 of Compliance Plan No. CP-50343, issued in conjunction with Post-Closure Care Permit No. HW-50343-000.

Please call me at (281) 600-1000 if you have any questions regarding the enclosed report.

Sincerely,

Environmental Resources Management

Christopher M. Young, P.G.

CMY/rjp
Enclosures

cc: Mark Arthur, TCEQ-Austin
Nicole Bealle, TCEQ Region 12 – Houston
Geoffrey B. Reeder, Union Pacific Railroad

G:\2006\0014419\8729Hltr.doc

Union Pacific Railroad Company

Semiannual Monitoring Report: First Semiannual Event 2006:

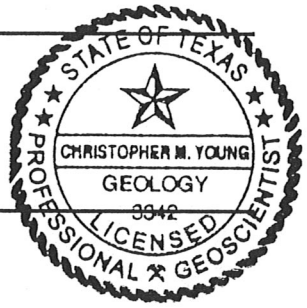
Houston Wood Preserving Works, Houston, Texas

July 19, 2006

Project No. 0014419

Paul A. Stefan, P.G.
Partner-in-Charge

Christopher M. Young, P.G.
Project Manager



Bizuayehu Ayele
Project Scientist

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
T: 281-600-1000
F: 281-600-1001

TABLE OF CONTENTS

APPENDICES

1.0 INTRODUCTION

Routine semiannual ground water monitoring is required as a condition of the Compliance Plan (CP) for the former Houston Wood Preserving Works (HWPW) site, located at 4910 Liberty Road, Houston, Texas (Figure 1-1). These activities are performed to monitor ground water quality beneath a closed surface impoundment.

The surface impoundment was described in RCRA Permit No. HW-50343-000 and associated Compliance Plan (CP-50343) as Unit 001. The sampling event, analytical data, and this data evaluation report fulfill the semiannual reporting requirements for the first half of 2006 as described in the CP, Section VII.C.2. The CP and RCRA Permit were renewed on June 10, 2005 for this unit.

From January 4 to 6, 2006, Environmental Resources Management (ERM) conducted ground water gauging and sampling activities at the site. These activities included sampling the compliance plan wells and piezometers associated with the surface impoundment, along with collecting fluid elevation data.

Section VII.C.2 of the CP describes the technical information to be provided in each semiannual report. Those requirements include:

1. A narrative summary of the evaluations made in accordance with CP Sections V, VI, and VII for the preceding six-month period. These periods shall be January 1 through June 30 and July 1 through December 31 (VII.C.2.a.);
2. Summary of Methods utilized for management of recovered/purged water (VII.C.2.b.);
3. An updated table and map of the monitoring and corrective action system wells (VII.C.2.c.);
4. The results of the chemical analyses, submitted in a tabulated format in a form acceptable to the Executive Director, which clearly indicates each parameter that exceeds the Ground Water Protection Standard (GWPS). Copies of the original laboratory report for chemical analyses showing detection limits and quality control and quality assurance data shall be provided if requested by the Executive Director (VII.C.2.d.);
5. Tabulation of the water level elevations (relative to mean sea level), depth to water measurements, and total depth of well measurements collected since the data that was submitted in the previous semiannual report (VII.C.2.e.);
6. Potentiometric surface maps showing the elevation of the water table at the time of sampling and direction of ground water flow gradients (VII.C.2.f.);
7. A notation of the presence or absence of non-aqueous phase liquids (NAPLs), both light and dense phases, in each well during each sampling event since the last event covered in the previous semiannual report and tabulation of depth and thickness of NAPLs, if detected (VII.C.2.g.);

8. Quarterly tabulations of quantities of recovered ground water and NAPLs, and graphs of monthly recorded flow rates versus time for the recovery wells during each period. A narrative summary describing and evaluating the NAPL recovery program shall also be included (VII.C.2.h.);
9. Tabulation of the total contaminant mass recovered from each recovery system for each reporting period, if such a system is installed (VII.C.2.i.);
10. Tabulation of the data evaluation results pursuant to Section VI.D and status of each well listed on CP Table V with regard to compliance with the corrective action objectives and compliance with the GWPSs (VII.C.2.j.);
11. Maps of the contaminated area depicting concentrations of constituents listed in Table IV and any newly detected Table III constituents as isopleths contours or discrete concentrations if isopleths contours cannot be inferred (VII.C.2.k.);
12. Maps indicating the extent and thickness of the LNAPLs and DNAPLs, if detected (VII.C.2.l.);
13. An updated schedule summary as required by Section X (VII.C.2.m.);
14. Summary of any changes made to the monitoring/corrective action program and a summary of recovery well inspections, repairs, and any operational difficulties (VII.C.2.n.);
15. A table of the modifications and amendments made to this Compliance Plan with their corresponding approval dates by the executive director or the Commission and a brief description of each action (VII.C.2.o.);
16. Corrective Measures Implementation (CMI) Report to be submitted in accordance with Section VIII.F, if necessary (VII.C.2.p.);
17. Tabulation of well casing elevations in accordance with Attachment B No. 16 (VII.C.2.q.);
18. Recommendation for any changes (VII.C.2.r.);
19. Certification and well installation diagram for any new well installation or replacement and certification for any well plugging and abandonment (VII.C.2.s.);
20. A summary of any activity within an area subject to institutional control (VII.C.2.t.); and
21. Any other items requested by the Executive Director (VII.C.2.u.).

As of June 30, 2006, a recovery system had not been installed at this facility. Therefore, provisions 8, 9, and 10 that relate to recovery wells or recovery system, are not applicable to this reporting period.

2.0 FIRST SEMIANNUAL GROUND WATER SAMPLING EVENT FOR 2006

This section contains a discussion of each of the semiannual report provisions required by CP Section VII.C.2, by reference number to the list of provisions in Section 1.

2.1 NARRATIVE SUMMARY OF FIRST SEMIANNUAL ACTIVITIES

CP Section VII.C.2.a requires a narrative summary of evaluations completed in accordance with CP Sections V, VI, and VII. Section V relates to the Corrective Action Program in place for the permitted unit. Section VI relates to the Ground Water Monitoring Program designed to evaluate the effectiveness of the Corrective Action Program. Section VII includes provisions for response and reporting requirements. Each of these evaluations is provided below.

2.1.1 *Corrective Action Program*

Ground water samples were collected from the existing wells to assess affected ground water quality in the A-Transmissive Zone (A-TZ) and the B-Transmissive Zone (B-TZ). The definitions of the A-TZ and B-TZ are consistent with the Uppermost Transmissive Zone (UTZ) and Second Transmissive Zone (STZ), respectively, as defined in CP Provision I.A. and summarized as follows:

- A-TZ refers to the first sand unit encountered at approximately 13 feet below ground surface (bgs) and averages 7 feet in thickness; and
- B-TZ refers to the second sand unit encountered at approximately 30 feet bgs and averages 9 feet in thickness.

The following monitor wells were sampled (as designated by function in CP Table V; Appendix A to this report):

- A-TZ Point of Compliance (POC) wells: MW-01A, MW-02, MW-07, MW-10A, and MW-11A;
- A-TZ Background well: MW-08;
- B-TZ POC wells: MW-10B, MW-11B, and P-10; and
- B-TZ background well: P-12.

2.1.2 *Ground Water Monitoring*

ERM performed quarterly well inspections on January 4, 2006 and from April 26 to 27, 2006 and ground water monitoring activities from January 4 to 6, 2006. Ground water sampling was performed using procedures outlined in a U.S. EPA document titled *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures* (EPA/540/S-95/504) published in April 1996 and approved in the Compliance Plan application.

The wells are equipped with dedicated polytetrafluoroethylene (PTFE) tubing for ground water sampling. A Master-Flex® peristaltic pump was used to collect the

ground water samples. An approximate one-foot section of disposable silicon tubing was placed around the pump head and attached to the PTFE tubing for proper operation of the pump. Ground water was pumped from the screened interval of the well at a flow rate of less than approximately 0.5 L/min. A flow-through cell and field meters were used to measure and evaluate field parameters including temperature, pH, specific conductivity, dissolved oxygen, and turbidity. When the field parameters had stabilized to the EPA-specified criteria, the well was sampled. The samples were also collected at a flow rate of less then 0.5 L/min. A compilation of recorded field parameters is included in Appendix B.

For each well, two 1,000-mL amber glass bottles [for site-specific semivolatile organic constituent (SVOC) analysis] were filled directly from the pumping apparatus described above. The bottles, containing laboratory-supplied preservatives, were sealed and packed in coolers with sufficient ice to maintain a sample temperature of approximately 4°C. The sample coolers were delivered to Severn Trent Laboratory, in Houston, Texas for analysis. Chain-of-Custody (COC) forms were completed and kept with their respective samples. Copies of the analytical data and COCs are included in Appendix C.

2.2 *PURGE WATER MANAGEMENT*

Purge water generated from the January 2006 low-flow ground water sampling event was containerized in Department of Transportation (DOT) certified, 55-gallon steel drums and temporarily stored on site in a fenced and locked container storage area (NOR 006) pending removal for off-site disposal.

Drummed purge water and personal protective equipment (PPE) were removed from the site and disposed at the Clean Harbors Deer Park facility on March 31, 2006.

2.3 *MONITORING AND CORRECTIVE ACTION SYSTEM WELLS*

A summary of the current monitoring and corrective action wells is provided in Table 2-1 and 2-2. Configuration of the current monitoring and corrective action wells is provided as Figures 2-1 and 2-2.

2.4 *ANALYTICAL RESULTS*

The results of the chemical analyses for the first semiannual sampling event of 2006 are summarized in Tables 2-1 and 2-2, respectively. Compounds with concentrations reported above the Protective Concentration Limit (PCL) are indicated in boxes on the tables. The CP Section IV.D defines the GWPS as the PCL. Table 2-3 summarizes the field blank, matrix spike and matrix spike duplicate results for quality assurance/quality control (QA/QC) purposes.

2.5 WELL MEASUREMENTS

During the sampling event, the following information was recorded at each monitor well:

Before Sampling

- The presence of light non-aqueous phase liquids (LNAPLs) was evaluated; and
- Depth to ground water was measured to the nearest 0.01 foot.

After Sampling

- The presence of dense non-aqueous phase liquids (DNAPLs) was evaluated using visual observations and an oil-water interface probe; and
- Total well depths were determined.

Table 2-4 provides a summary of these measurements. None of the CP wells had measurable amounts of LNAPL or DNAPL.

2.6 POTENTIOMETRIC SURFACE MAPS

The ground water elevation data recorded during the first semiannual well gauging activities of 2006 were used to create potentiometric surface maps of the A-TZ and B-TZ (Figures 2-1 and 2-2, respectively). A review of Figure 2-1 indicates that ground water flow is toward the west with an estimated gradient of 0.0027 feet/foot (ft/ft) in the A-TZ. The flow in the B-TZ is toward the west with a gradient of 0.0099 ft/ft (Figure 2-2), which is consistent with historical flow directions and flow rates.

2.7 NON-AQUEOUS PHASE LIQUIDS

None of the CP wells had measurable amounts of LNAPL or DNAPL.

2.8 RECOVERED GROUND WATER AND NAPL

To date, a recovery system has not been installed at the closed surface impoundment. Therefore, this provision is not applicable.

2.9 CONTAMINANT MASS RECOVERED

To date, a recovery system had not been installed at the closed surface impoundment. Therefore, this provision is not applicable.

2.10 ANALYTICAL DATA EVALUATION

CP Section VI.D describes two methods which may be used to determine the compliance status of a given well. The analytical results may be either directly compared with the PCL (CP Table III; included in Appendix A herein), or

statistically compared to the PCL using the Confidence Interval Procedure for the mean concentration based on normal, log-normal, or non-parametric distribution in which the 95% confidence coefficient of the t-distribution will be used in construction the confidence interval. Tables 2-1 and 2-2 show the results of a direct comparison of data from the second semiannual sampling event with the PCL. Wells and piezometers are in compliance if each of the constituents listed in CP Table III was reported at a concentration less than or equal to the PCL.

Summary of monitor well compliance status is provided in Table 2-5. All the monitor wells penetrating both transmissive zones are compliant and all the sample results are below their respective PCLs.

- The following samples were qualified as *Not-detected estimated*:
  - MW-07, MW-08, and FB-010506 for 2-Methylnaphthalene; and
  - MW-08 and FB-010506 for Naphthalene.
- The following samples were qualified as *Estimated Low*:
  - Dup-2 for acenaphthylene, anthracene, dibenzofuran, fluoranthene, phenanthrene and pyrene;
  - P-12 for pyrene; and
- Sample MW-07 was qualified as *Estimated High* for naphthalene.
- Samples MW-11B and FB-010506 were qualified as *Not-detected* for di-n-butyl phthalate.

Data usability summaries are included in Appendix C, and qualifiers with asterisks were added to the data tables.

2.11 *REPORTED CONCENTRATION MAPS*

As specified by provision VIIC.2.k. of the CP, maps showing reported concentrations of each constituent analyzed are constructed using the data presented in Tables 2-1 and 2-2. The maps are presented in Figures 2-3 and 2-4. There were no exceedances of PCLs for any site-specific constituent.

2.12 *EXTENT OF NAPL*

None of the CP wells had measurable amounts of LNAPL or DNAPL.

2.13 *UPDATED COMPLIANCE SCHEDULE*

Section X of the CP requires that the Permittee submit a schedule summarizing the activities required by the Compliance Plan issued on June 10, 2005. This schedule was submitted to the TCEQ on August 4, 2005. An updated compliance schedule from the August 4, 2005 submittal is included as Appendix D of this report.

2.14 *SUMMARY OF CHANGES MADE TO CORRECTIVE ACTION PROGRAM*

No changes were made to the corrective action program.

2.15 *MODIFICATIONS AND AMENDMENTS TO COMPLIANCE PLAN*

A compliance plan renewal application was submitted to TCEQ on December 23, 2003 consistent with the renewal requirements for the RCRA permit at the site. The RCRA permit and CP were issued June 10, 2005. There were no modifications or amendments to the Compliance Plan.

2.16 *CORRECTIVE MEASURES IMPLEMENTATION (CMI) REPORT*

A Response Action Plan (RAP) has not been submitted. Therefore, this provision does not apply.

2.17 *WELL CASING ELEVATIONS*

Top-of-casing elevations referenced to feet Mean Sea Level for each CP monitor well are summarized in Table 2-4.

2.18 *RECOMMENDATION FOR CHANGES*

There are no recommendations for changes to the monitoring program or the Corrective Action Program.

2.19 *WELL INSTALLATION AND/OR ABANDONMENT*

No monitor wells were installed or abandoned as part of the monitoring program or the Corrective Action Program during the reporting period.

2.20 *ACTIVITY WITHIN AREA SUBJECT TO INSTITUTIONAL CONTROL*

No areas are under institutional control; therefore this provision does not apply.

2.21 *OTHER REQUESTED ITEMS*

No other items were requested by the executive director.

Tables

July 19, 2006
Project No. 0014419

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

TABLE 2-1

Summary of Analytical Results for the A-Transmissive Zone (A-TZ)
Semiannual Monitoring Report: First Semiannual Event 2006

Houston Wood Preserving Works
Houston, Texas

Analyte	PCL Reporting Limit	Monitor Well ID: / Sample Date:	MW-01A 1/6/2006		DUP-2[a] 1/6/2006		MW-02 1/5/2006		MW-07 1/5/2006		MW-08 1/6/2006		MW-10A 1/5/2006		MW-11A 1/5/2006	
Acenaphthene	1.5		0.0937		0.0917		0.0142		0.00286		0.0000700	U	0.0000700	U	0.0000700	U
Acenaphthylene	1.5		0.00387		0.00350	JL*	0.00128		0.0000800	J	0.0000600	U	0.0000600	U	0.0000600	U
Anthracene	7.3		0.00210		0.00199	JL*	0.000857		0.000537		0.000110	J	0.000110	J	0.0000700	U
Dibenzofuran	0.098		0.0143		0.0195	JL*	0.0152		0.0000900	J	0.0000800	U	0.0000800	U	0.0000800	U
Di-n-butyl Phthalate	2.4		(1)		(1)		(1)		(1)		(1)		(1)		(1)	
bis(2-ethylhexyl)phthalate	0.006		0.000356	U	0.000359	U	0.000370	U	0.000422	J	0.000363	U	0.000359	U	0.000363	U
Fluoranthene	0.98		0.00557		0.00550	JL*	0.00113		0.0000800	U	0.0000800	U	0.0000800	U	0.000516	
Fluorene	0.98		0.0221		0.0275		0.0148		0.000380	J	0.0000700	U	0.0000700	U	0.0000800	J
2-Methylnaphthalene	0.098		0.00169		0.00306		0.000460	J	0.0000700	U,UJ*	0.0000700	U,UJ*	0.0000700	U	0.0000700	U
Naphthalene	0.49		0.000519		0.000798		0.00530		0.000190	J,JH*	0.0000600	U,UJ*	0.0000600	U	0.0000600	U
Phenanthrene	0.73		0.000650		0.000660	JL*	0.000240	J	0.0000900	U	0.0000900	U	0.0000900	U	0.0000900	U
Phenol	7.3		(1)		(1)		(1)		(1)		(1)		(1)		(1)	
Pyrene	0.73		0.00250		0.00253	JL*	0.000410	J	0.0000900	U	0.0000900	U	0.0000900	U	0.000110	J

NOTES:

All values reported in mg/L.

PCL = Protective Concentration Limit

(1) Based on Tables III and IV, this constituent is not analyzed for A-Transmissive Zone wells.

(2) Based on Tables III and IV, this constituent is not analyzed for B Transmissive Zone wells

The Compliance Plan Section IV.D defines the Ground Water Protection Standard (GWPS) as the PCL.

[ ] indicates value reported above the PCL

U = Analyte analyzed but not detected at sample Quantitation Limit (SQL)

J = Estimated value between the reporting limit and MDL.

a = DUP-2 is a duplicate sample taken at MW-01A
JL* = The concentration of the analyte is qualified as estimated low by the data quality reviewer due to the internal QC criteria being above the QC acceptance criteria
UJ* = The concentration of the analyte is qualified as Not detected estimated by the data quality reviewer due to the internal QC criteria being above the QC acceptance criteria
JH* = The concentration of the analyte is qualified as estimated high by the data quality reviewer due to the internal QC criteria being above the QC acceptance criteria

TABLE 2-2

Summary of Analytical Results for the B-Transmissive Zone (B-TZ)
Semiannual Monitoring Report: First Semiannual Event 2006

Houston Wood Preserving Works
Houston, Texas

Analyte	PCL Reporting Limit	Monitor Well ID: / Sample Date:	MW-10B 1/5/06		MW-11B 1/5/2006		P-10 1/5/06		DUP-1[a] 1/5/06		P-12 1/6/2006	
Acenaphthene	1.5		0.0113		0.00537	U	0.102		0.0971		0.0000700	U
Acenaphthylene	1.5		0.000711		0.000617		0.0000600	U	0.0003700	J	0.0000600	U
Anthracene	7.3		0.000556		0.00269		0.00570		0.00492		0.0000700	U
Dibenzofuran	0.098		0.000200	J	0.0261		0.0235		0.0289		0.0000800	U
Di-n-butyl Phthalate	2.4		0.000106	U	0.000130	J, U*	0.000107	U	0.000105	U	0.000105	U
bis(2-ethylhexyl)phthalate	0.006		0.000356	U	0.000352	U	0.000359	U	0.000352	U	0.000352	U
Fluoranthene	0.98		0.000649		0.00184		0.00273		0.00255		0.0000800	U
Fluorene	0.98		0.0000700	U	0.0259		0.0480		0.0490		0.0000700	U
2-Methylnaphthalene	0.098		(2)		(2)		(2)		(2)		(2)	
Naphthalene	0.49		0.0000600	U	0.00250		0.433		0.439		0.0000600	U
Phenanthrene	0.73		(2)		(2)		(2)		(2)		(2)	
Phenol	7.3		0.0000600	U	0.0000400	U	0.0000400	U	0.0000400	U	0.0000400	U
Pyrene	0.73		0.000380	J	0.000873		0.00108		0.000993		0.00615	JL*

NOTES:

All values reported in mg/L.

PCL = Protective Concentration Limit

(1) Based on Tables III and IV, this constituent is not analyzed for A-Transmissive Zone wells.

(2) Based on Tables III and IV, this constituent is not analyzed for B Transmissive Zone wells

The Compliance Plan Section IV.D defines the Ground Water Protection Standard (GWPS) as the PCL.

[ ] indicates value reported above the PCL

U = Analyte analyzed but not detected at sample Quantitation Limit (SQL)

J = Estimated value between the reporting limit and MDL.

a = DUP-1 is a duplicate sample collected at P-10.
U* = The concentration of the analyte is qualified by the data quality reviewer as Not detected due to a detection in the method blank.
JL* = The concentration of the analyte is qualified as estimated low by the data quality reviewer due to the internal QC criteria being above the QC acceptance criteria

TABLE 2-3

Summary of Analytical Results for Quality Assurance/Quality Control Samples
Semiannual Monitoring Report: First Semiannual Event 2006

Houston Wood Preserving Works
Houston, Texas

Analyte	PCL Reporting Limit	Monitor Well ID: Sample Date:	FB-010506 1/5/06		MW-2 (MS)[a] 1/5/2006	MW-2 (MSD)[a] 1/5/06
Acenaphthene	1.5		0.0000700	U	0.0349000	0.0254
Acenaphthylene	1.5		0.0000600	U	0.00802	0.00815
Anthracene	7.3		0.0000700	U	0.0120	0.0119
Dibenzofuran	0.098		0.0000800	U	0.0189	0.0212
Di-n-butyl Phthalate	2.4		0.000172	J, U*	(1)	(1)
bis(2-ethylhexyl)phthalate	0.006		0.000352	U	0.00762	0.00771
Fluoranthene	0.98		0.0000800	U	0.00990	0.0107
Fluorene	0.98		0.0000700	U	0.0197	0.0229
2-Methylnaphthalene	0.098		0.0000700	U, UJ*	0.00728	0.00770
Naphthalene	0.49		0.0000600	U, UJ*	0.0117	0.0144
Phenanthrene	0.73		0.0000900	U	0.00634	0.00722
Phenol	7.3		0.0000400	U	(1)	(1)
Pyrene	0.73		0.0000900	U	0.00903	0.00941

NOTES:

All values reported in mg/L.
PCL = Protective Concentration Limit
(1) Based on Tables III and IV, this constituent is not analyzed for A-Transmissive Zone wells.
(2) Based on Tables III and IV, this constituent is not analyzed for B Transmissive Zone wells
The Compliance Plan Section IV.D defines the Ground Water Protection Standard (GWPS) as the PCL.
U = Analyte analyzed but not detected at sample Quantitation Limit (SQL)
J = Estimated value between the reporting limit and MDL.
[a] - MW-2(MS) and MW-2(MSD) are matrix spike and matrix spike duplicate samples taken at MW-2, respectively.
JL* = The concentration of the analyte is qualified as estimated low by the data quality reviewer due to the internal QC criteria being above the QC acceptance criteria.
UJ* = The concentration of the analyte is qualified as Not detected estimated by the data quality reviewer due to the internal QC criteria being above the QC acceptance criteria.
U* = The concentration of the analyte is qualified by the data quality reviewer as Not detected due to a detection in the method blank.

TABLE 2-4

Water Level and Total Depth of Well Measurements
Semiannual Monitoring Report: First Semiannual Event 2006

Houston Wood Preserving Works
Houston, Texas

Well ID	Top of Casing Elevation (ft MSL)	Depth to Water (ft TOC)	Water Surface Elevation (ft MSL)	Total Depth of Well as Measured (ft TOC)	Total Depth as Completed (ft TOC) *
A-TZ Monitoring Locations					
MW-01A	47.92	8.54	39.38	19.73	20.2
MW-02	47.97	8.77	39.20	20.07	20.3
MW-07	48.86	9.91	38.95	24.69	N/A
MW-08	49.33	9.99	39.34	24.95	26.8
MW-10A	49.86	10.71	39.15	25.46	25.9
MW-11A	50.05	10.80	39.25	23.83	24.4
B-TZ Monitoring Locations					
MW-10B	49.94	10.75	39.19	46.87	48.8
MW-11B	50.18	11.01	39.17	46.81	46.8
P-10	47.69	8.58	39.11	42.92	40.0
P-12	48.78	8.98	39.80	NM	40.0

NOTES:

1) Wells were gauged on January 4, 2006.
Non-aqueous phase liquids were not measured in any well.
ft MSL = feet above Mean Sea Level
ft TOC = feet below the Top Of (the well) Casing
* Reported during well installation and completion
N/A = Information not available
NM = Not Measured

TABLE 2-5

Compliance Status of Wells and Piezometers
Semiannual Monitoring Report: First Semiannual Event 2006

Houston Wood Preserving Works

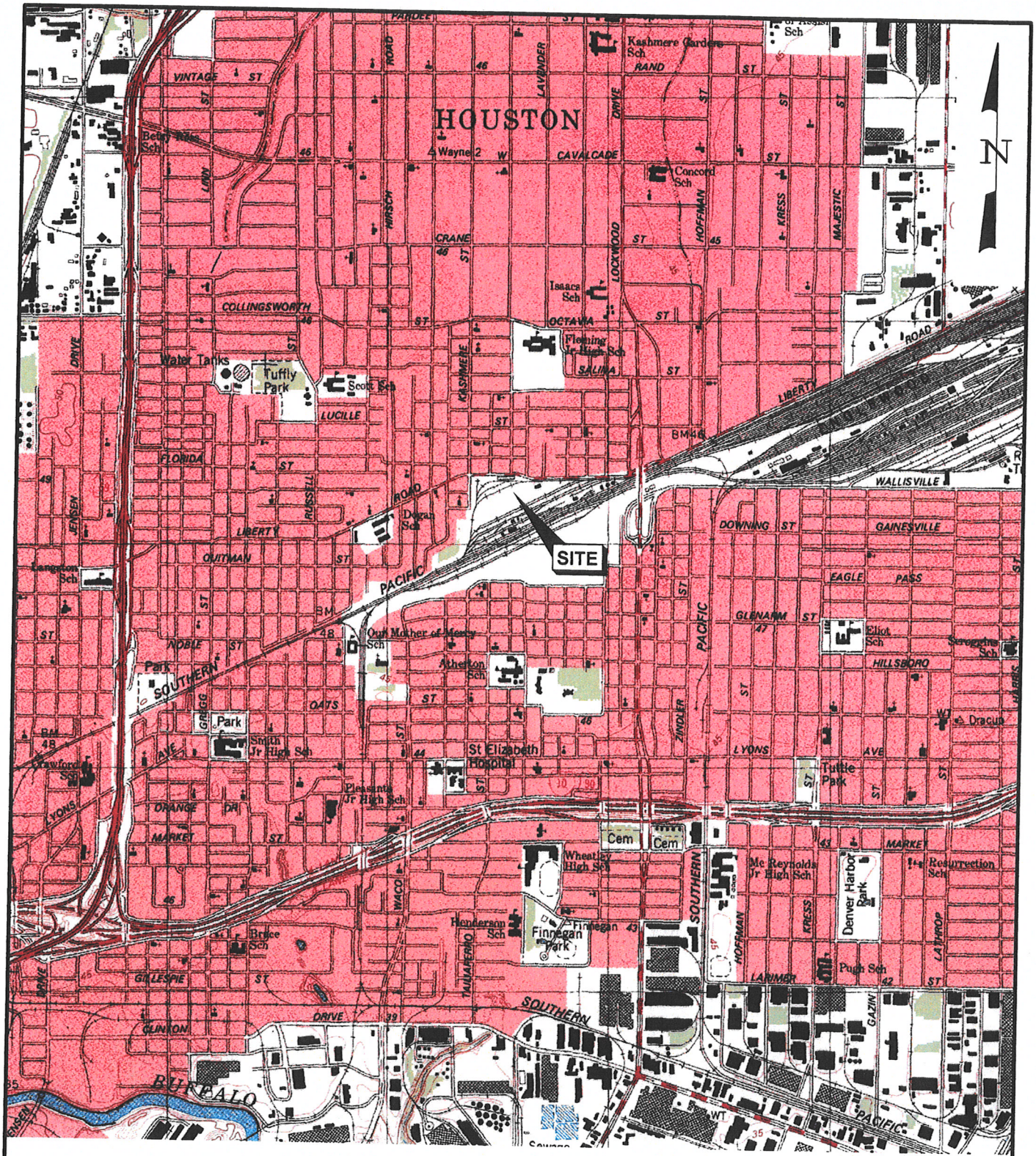
Houston, Texas

A-TZ Monitoring Location	Well Designation	Compliance Status
MW-01A	Point of compliance	Compliant
MW-02	Point of compliance	Compliant
MW-07	Point of compliance	Compliant
MW-08	Background Well	Compliant
MW-10A	Point of compliance	Compliant
MW-11A	Point of compliance	Compliant
B-TZ Monitoring Location		
MW-10B	Point of compliance	Compliant
MW-11B	Point of compliance	Compliant
P-10	Point of compliance	Compliant
P-12	Background Well	Compliant

Figures

July 19, 2006
Project No. 0014419

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000



SOURCE: U.S.G.S. 7.5 MINUTE QUADRANGLE, SETTEGAST, TEXAS, 1982.

0 2000 4000

SCALE FEET

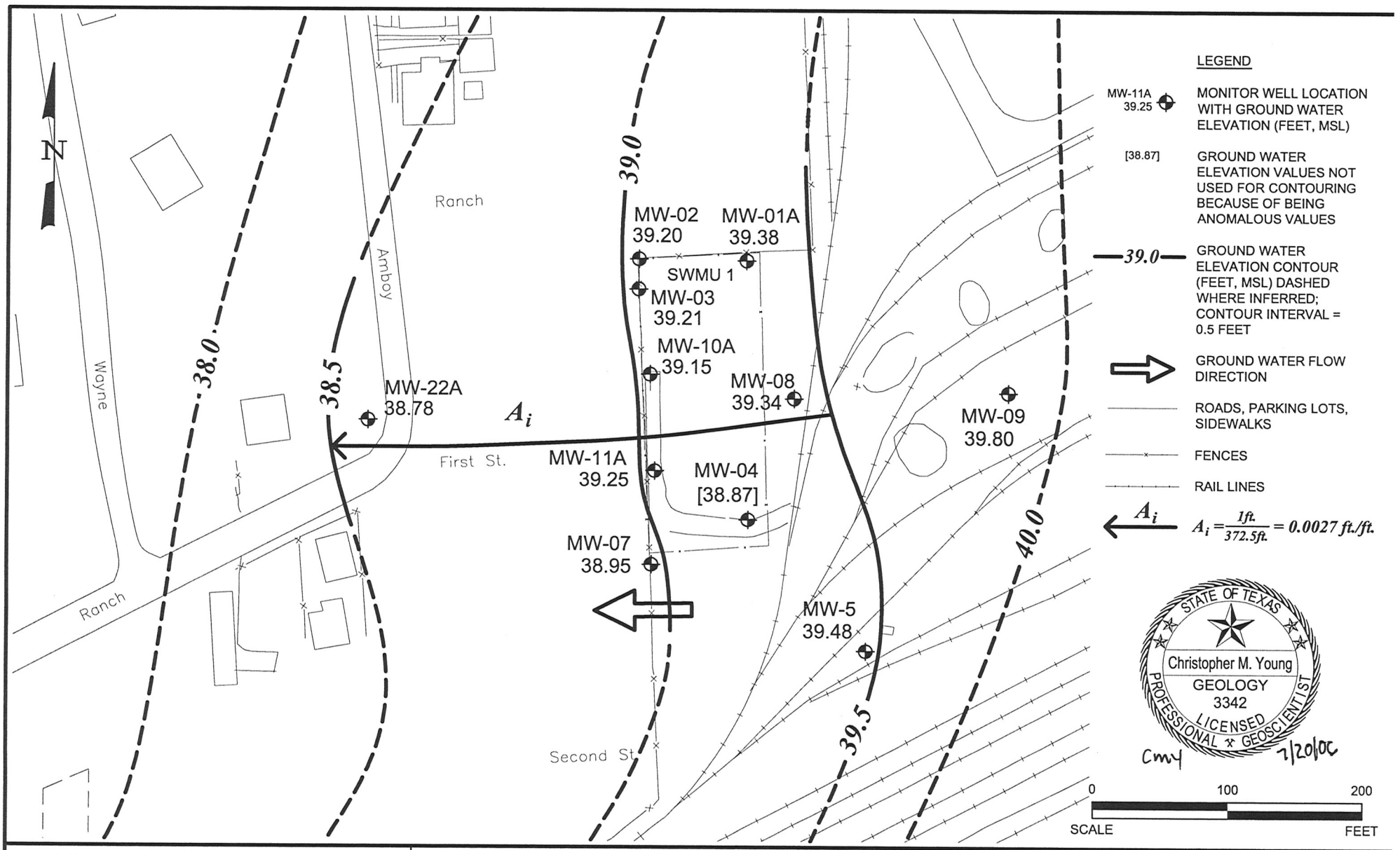
ERM-Southwest, Inc.

HOUSTON · NEW ORLEANS · AUSTIN · MOBILE · BEAUMONT · BATON ROUGE · CORPUS CHRISTI

DESIGN:	DRAWN: CAK	CHKD.: PJG
DATE: 07/13/04	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWG\G06\0014419_SiteLoc.dwg		

FIGURE 1-1
SITE LOCATION MAP
Houston Wood Preserving Works
Houston, Texas

ERM

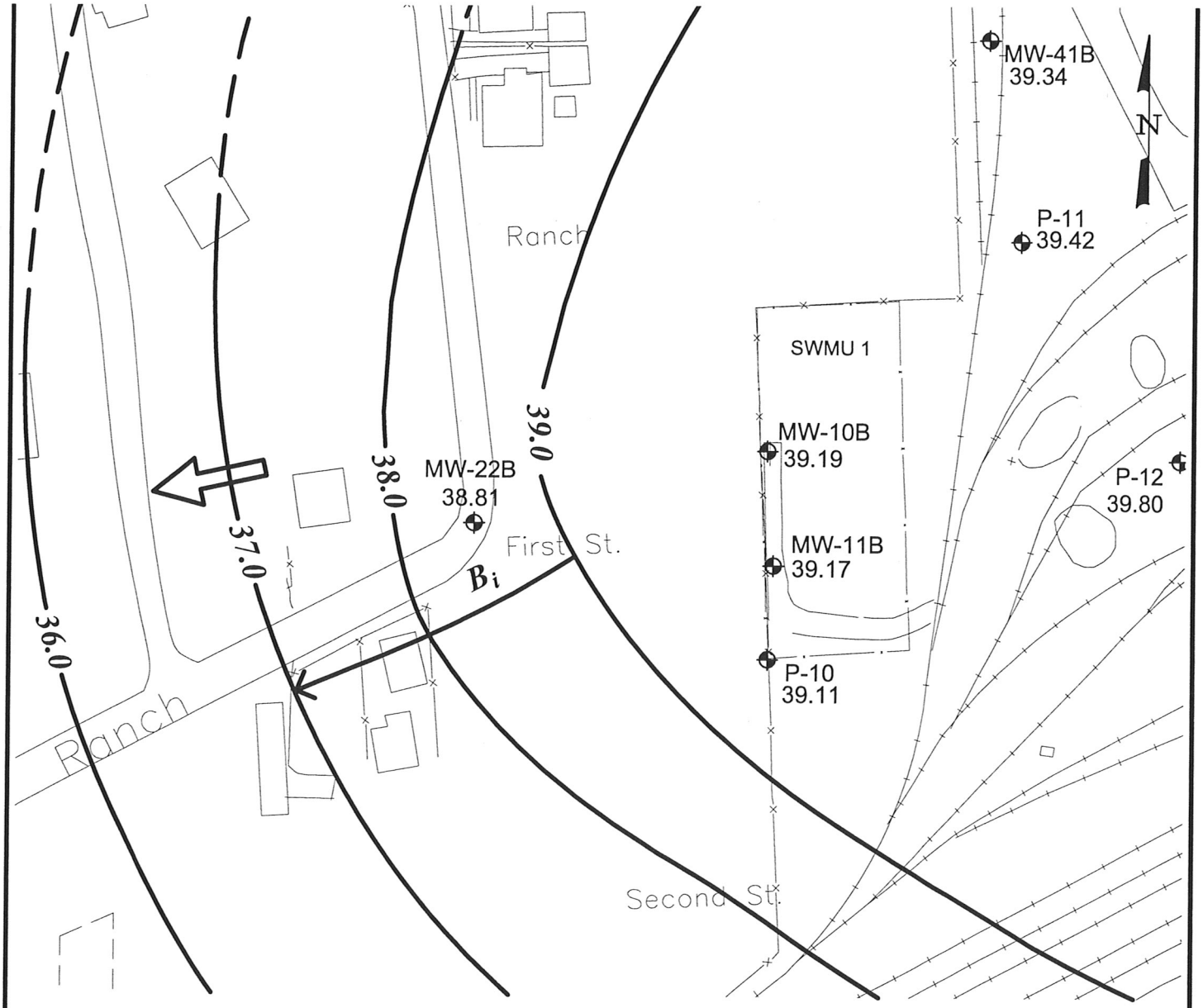


ERM-Southwest, Inc.
HOUSTON · NEW ORLEANS · AUSTIN · MOBILE · BEAUMONT · BATON ROUGE

DESIGN: BA	DRAWN: CAK	CHKD.: CMY
DATE: 07/20/06	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\dwg\G06\0014419a311.dwg, 7/20/2006 6:37:33 AM		

FIGURE 2-1
A-TZ POTENTIOMETRIC SURFACE MAP
JANUARY 4-6, 2006
TCEQ PERMIT UNIT No. 001
Houston Wood Preserving Works
Houston, Texas

ERM



LEGEND

MW-11B 39.17 — MONITOR WELL LOCATION WITH GROUND WATER ELEVATION (FEET, MSL)

—41.0— GROUND WATER ELEVATION CONTOUR (FEET, MSL) DASHED WHERE INFERRED

B_i $B_i = \frac{2ft.}{202.5ft.} = 0.0099\ ft./ft.$

GROUND WATER FLOW DIRECTION

ROADS, PARKING LOTS, SIDEWALKS

FENCES

RAIL LINES

0 100 200
SCALE FEET

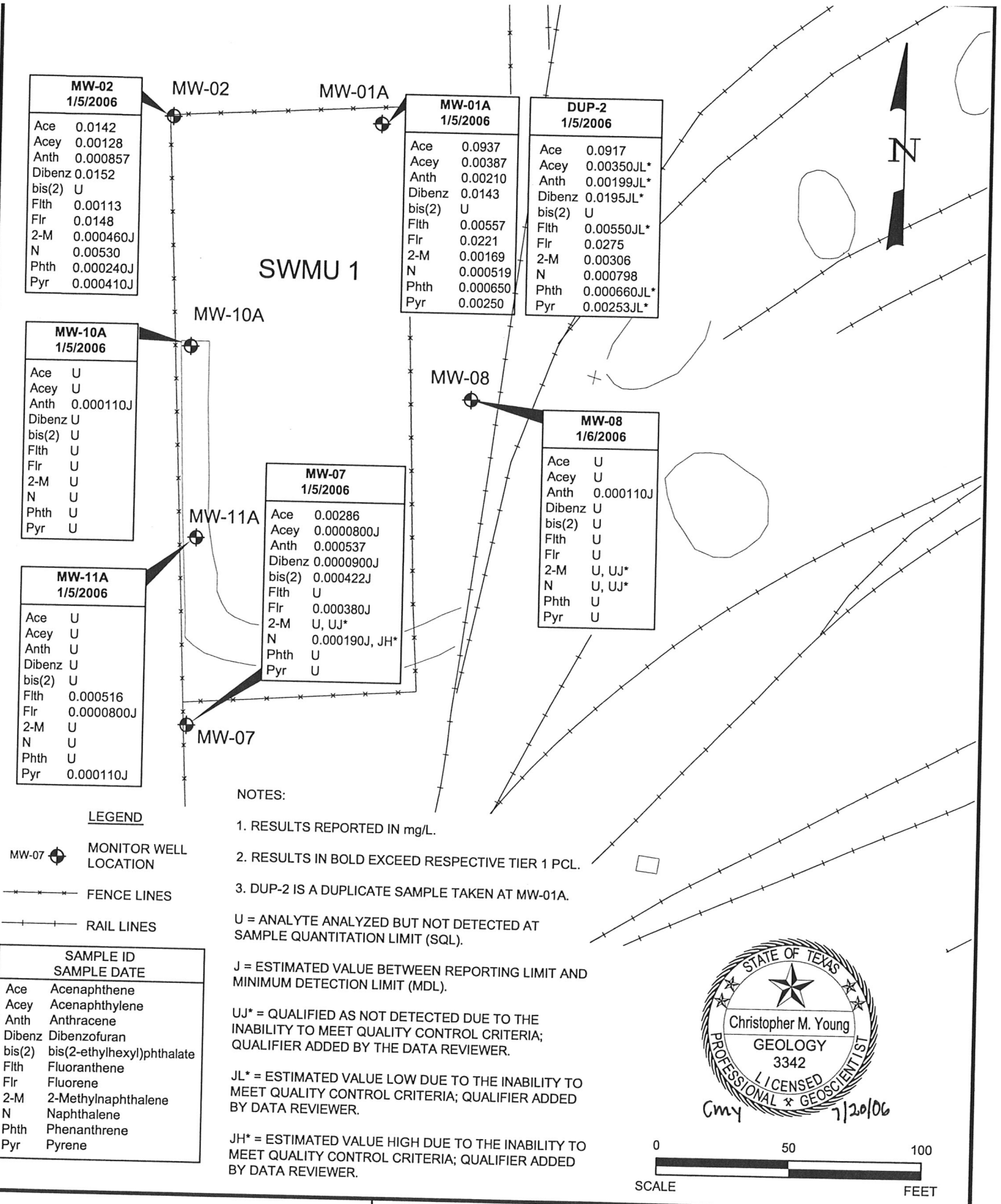
STATE OF TEXAS
Christopher M. Young
GEOLOGY
3342
LICENSED
PROFESSIONAL GEOSCIENTIST
CMY 7/20/06

ERM-Southwest, Inc.
HOUSTON · NEW ORLEANS · AUSTIN · MOBILE · BEAUMONT · BATON ROUGE

DESIGN: BA	DRAWN: CAK	CHKD.: CMY
DATE: 07/20/06	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\dwg\G06\0014419a310.dwg, 7/20/2006 6:38:57 AM		

FIGURE 2-2
BT-Z POTENTIOMETRIC SURFACE MAP
JANUARY 4-6, 2006
TCEQ PERMIT UNIT No. 001
Houston Wood Preserving Works
Houston, Texas

ERM



LEGEND

MW-07 ⊕ MONITOR WELL LOCATION

FENCE LINES

RAIL LINES

SAMPLE ID SAMPLE DATE	
Ace	Acenaphthene
Acey	Acenaphthylene
Anth	Anthracene
Dibenz	Dibenzofuran
bis(2)	bis(2-ethylhexyl)phthalate
Flth	Fluoranthene
Flr	Fluorene
2-M	2-Methylnaphthalene
N	Naphthalene
Phth	Phenanthrene
Pyr	Pyrene

NOTES:

1. RESULTS REPORTED IN mg/L.
2. RESULTS IN BOLD EXCEED RESPECTIVE TIER 1 PCL.
3. DUP-2 IS A DUPLICATE SAMPLE TAKEN AT MW-01A.

U = ANALYTE ANALYZED BUT NOT DETECTED AT SAMPLE QUANTITATION LIMIT (SQL).

J = ESTIMATED VALUE BETWEEN REPORTING LIMIT AND MINIMUM DETECTION LIMIT (MDL).

UJ* = QUALIFIED AS NOT DETECTED DUE TO THE INABILITY TO MEET QUALITY CONTROL CRITERIA; QUALIFIER ADDED BY THE DATA REVIEWER.

JL* = ESTIMATED VALUE LOW DUE TO THE INABILITY TO MEET QUALITY CONTROL CRITERIA; QUALIFIER ADDED BY DATA REVIEWER.

JH* = ESTIMATED VALUE HIGH DUE TO THE INABILITY TO MEET QUALITY CONTROL CRITERIA; QUALIFIER ADDED BY DATA REVIEWER.

STATE OF TEXAS
Christopher M. Young
GEOLOGY
3342
LICENSED
PROFESSIONAL GEOSCIENTIST
Cmy 7/20/06

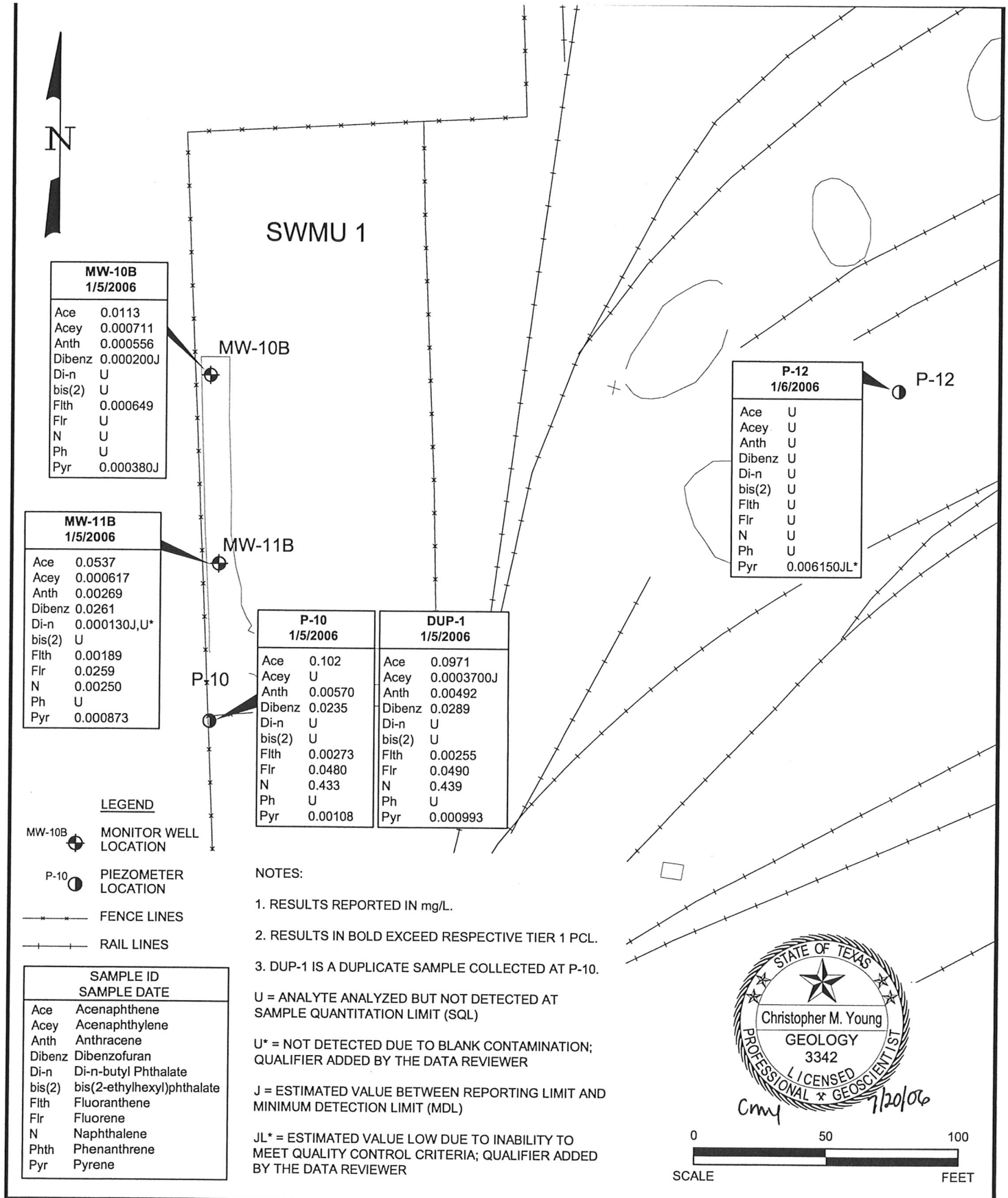
0 50 100
SCALE FEET

ERM-Southwest, Inc.
HOUSTON · NEW ORLEANS · AUSTIN · DALLAS · BEAUMONT · BATON ROUGE · CORPUS CHRISTI

DESIGN: BA	DRAWN: LMc	CHKD.: CMY
DATE: 07/20/06	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\dwg\G06\0014419a296.dwg, 7/20/2006 6:39:55 AM		

FIGURE 2-3
A-TZ REPORTED CONCENTRATIONS
JANUARY 5-6, 2006
TCEQ PERMIT UNIT No. 001
Houston Wood Preserving Works
Houston, Texas

ERM



ERM-Southwest, Inc.
HOUSTON · NEW ORLEANS · AUSTIN · MOBILE · BEAUMONT · BATON ROUGE

DESIGN: BA	DRAWN: LMc	CHKD.: CMY
DATE: 07/20/06	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\dwg\G06\0014419a297.dwg, 7/20/2006 6:41:06 AM		

FIGURE 2-4
B-TZ REPORTED CONCENTRATIONS
JANUARY 5-6, 2006
TCEQ PERMIT UNIT No. 001
Houston Wood Preserving Works
Houston, Texas

ERM

Compliance Plan Tables

Appendix A

July 19, 2006
Project No. 0014419

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

G:\2006\0014419\8729Hrpt.doc

TABLE III - CORRECTIVE ACTION PROGRAM
Table of Detected Hazardous and Solid Waste Constituents and
Concentration Limits for the Ground-Water Protection Standard

Closed Surface Impoundment (NOR Unit No. 001, SWMU No. 01)

A-Transmissive Zone		B-Transmissive Zone	
COLUMN A Hazardous Constituents	COLUMN B Concentration Limits (mg/l)	COLUMN A Hazardous Constituents	COLUMN B Concentration Limits (mg/l)
Acenaphthene	1.5[PCL]	Acenaphthene	1.5[PCL]
Acenaphthylene	1.5[PCL]	Acenaphthylene	1.5[PCL]
Anthracene	7.3[PCL]	Anthracene	7.3[PCL]
Dibenzofuran	0.098[PCL]	Dibenzofuran	0.098[PCL]
Bis(2-ethylhexyl)phthalate	0.006[PCL]	Bis(2-ethylhexyl)phthalate	0.006[PCL]
Fluoranthene	0.98[PCL]	Fluoranthene	0.98[PCL]
Fluorene	0.98[PCL]	Fluorene	0.98[PCL]
2-Methylnaphthalene	0.098[PCL]	Di-n-butyl phthalate	2.4[PCL]
Naphthalene	0.49[PCL]	Naphthalene	0.49[PCL]
Phenanthrene	0.73[PCL]	Phenol	7.3[PCL]
Pyrene	0.73[PCL]	Pyrene	0.73[PCL]

PCL Alternate Concentration Limit pursuant to 30 TAC §335.160(b) based upon the Protective Concentration Level determined under 30 TAC Chapter 350 for Residential Land Use. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

TABLE IV - CORRECTIVE ACTION PROGRAM
Table of Indicator Parameters and Concentration Limits for the Ground-Water Protection Standard

Closed Surface Impoundment (NOR Unit No. 001, SWMU No. 01)

A-Transmissive Zone

COLUMN A Hazardous Constituents	COLUMN B Concentration Limits (mg/l)
Acenaphthene	1.5[PCL]
Acenaphthylene	1.5[PCL]
Anthracene	7.3[PCL]
Dibenzofuran	0.098[PCL]
Bis(2-ethylhexyl)phthalate	0.006[PCL]
Fluoranthene	0.98[PCL]
Fluorene	0.98[PCL]
2-Methylnaphthalene	0.098[PCL]
Naphthalene	0.49[PCL]
Phenanthrene	0.73[PCL]
Pyrene	0.73[PCL]

B-Transmissive Zone

COLUMN A Hazardous Constituents	COLUMN B Concentration Limits (mg/l)
Acenaphthene	1.5[PCL]
Acenaphthylene	1.5[PCL]
Anthracene	7.3[PCL]
Dibenzofuran	0.098[PCL]
Bis(2-ethylhexyl)phthalate	0.006[PCL]
Fluoranthene	0.98[PCL]
Fluorene	0.98[PCL]
Di-n-butyl phthalate	2.4[PCL]
Naphthalene	0.49[PCL]
Phenol	7.3[PCL]
Pyrene	0.73[PCL]

PCL Alternate Concentration Limit pursuant to 30 TAC §335.160(b) based upon the Protective Concentration Level determined under Remedy Standard A or B of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

TABLE V
Designation of Wells by Function

POINT OF COMPLIANCE WELLS

1. Closed Surface Impoundment (NOR Unit No. 001, SWMU No. 01)
   A-Transmissive Zone: MW-01A, MW-02, MW-07, MW-10A, and MW-11A
   B-Transmissive Zone: MW-10B, MW-11B, and P-10

POINT OF EXPOSURE WELLS

1. Closed Surface Impoundment (NOR Unit No. 001, SWMU No. 01)
   None

BACKGROUND WELLS

1. Closed Surface Impoundment (NOR Unit No. 001, SWMU No. 01)
   A-Transmissive Zone: MW-8
   B-Transmissive Zone: P-12

Note: Wells and piezometers identified on Attachment A maps that are not listed in this table are subject to change, upon approval by the executive director, without modification to the Compliance Plan. The wells and piezometers for the Closed Surface Impoundment are depicted on Attachment A, Sheets 3 and 4.

Field Parameters

Appendix B

July 19, 2006
Project No. 0014419

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

G:\2006\0014419\8729Hrpt.doc

TABLE B-1

Ground Water Sampling Field Parameters

Semiannual Monitoring Report: First Semiannual Event 2006
Houston Wood Preserving Works
Houston, Texas

A-Transmissive Zone

Well ID:	MW-01A	MW-02	MW-07	MW-10A	MW-11A	MW-08
Date Sampled:	1/5/06	1/5/06	1/5/06	1/5/06	1/5/06	1/5/06
Time Sampled (hrs CST)	1443	1643	1443	1107	930	1612
Temperature (°C)	22.7	20.4	22.0	19.2	20.7	22.4
pH (Standard Units)	6.91	6.80	7.11	7.15	7.01	7.18
Specific Conductivity (µS)	1197	772	709	884	947	5.79
Dissolved Oxygen (mg/L)	-1.1	-0.9	-1.4	0.5	0.5	2.9
Turbidity (NTU)	20.80	14.40	1.16	0.20	8.14	0.17

B-Transmissive Zone

Well ID:	MW-10B	MW-11B	P-10	P-12
Date Sampled:	1/5/06	1/5/06	1/5/06	1/5/06
Time Sampled (hrs CST)	1112	912	1412	1727
Temperature (°C)	19.6	20.6	22.7	19.7
pH (Standard Units)	7.09	6.86	7.00	6.76
Specific Conductivity (µS)	1,085	1,038	981	1,159
Dissolved Oxygen (mg/L)	-0.1	-0.9	-0.6	-0.5
Turbidity (NTU)	16.00	4.34	0.09	0.00

NOTES:

CST = Central Standard Time

NTU = Nephalometric Turbidity Unit

µS = MicroSemiens

The parameter readings were taken on January 5 and 6, 2006.

Laboratory Analytical Reports and Data Usability Summaries

Appendix C

July 19, 2006
Project No. 0014419

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

G:\2006\0014419\8729Hrpt.doc

SEVERN TRENT STL

REVISED

ANALYTICAL REPORT

JOB NUMBER: 309000
Project ID: UPRR-HWPW-0014419 60

Prepared For:

ERM Southwest, Inc.- Houston
15810 Park Ten Place
Suite 300
Houston, TX 77084

Attention: Chris Young

Date: 03/08/2006

Signature

Name: Sachin G. Kudchadkar

Title: Project Manager III

E-Mail: skudchadkar@stl-inc.com

03/08/06
Date

Severn Trent Laboratories
6310 Rothway Drive
Houston, TX 77040

PHONE: 713-690-4444

TOTAL NO. OF PAGES 35

SEVERN TRENT STL

03/08/2006

Chris Young
ERM Southwest, Inc.- Houston
15810 Park Ten Place
Suite 300
Houston, TX 77084

Reference:
Project : UPRR-HWPW-0014419 60
Project No. : 309000
Date Received : 01/09/2006
STL Job : 309000

Dear Chris Young:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

1. MW-11 A
2. MW-11 B
3. MW-10 A
4. MW-10 B
5. P-10
6. Dup-1
7. MW-7
8. FB-010506
9. MW-2
10. MW-2 (MS)
11. MW-2 (MSD)
12. MW-01 A
13. Dup 2
14. MW-8
15. P-12

All hold times were met for the tests performed on these samples.

The Volatiles analyses requested on the Chain of Custody (C-O-C) were not performed since the laboratory did not receive the bottles designated for these analyses.

Enclosed, please find the Quality Control Summary. All quality control results for the QC batch that are applicable to the sample(s) are acceptable except as noted in the QC batch reports.

The test results in this report meet all NELAP requirements for STL Houston's NELAP accredited parameters. Any exceptions to NELAP requirements will be noted and included in a case narrative as a part of this report.

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Severn-Trent Laboratories to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

SEVERN TRENT STL

We look forward to working with you on future projects.

Sincerely,

Sachin G. Kudchadkar
Project Manager

SEVERN TRENT STL

Table 1

Cross-Reference Field Sample Identifications and Laboratory Identifications

Field Identification	Laboratory Identification	8270C	Comment
MW-11 A	309000-1	X	
MW-11 B	309000-2	X	
MW-10 A	309000-3	X	
MW-10 B	309000-4	X	
P-10	309000-5	X	
Dup-1	309000-6	X	Field Duplicate
MW-7	309000-7	X	
FB-010506	309000-8	X	Field Blank
MW-2	309000-9	X	
MW-2 (MS)	309000-10	X	Matrix Spike of MW-2
MW-2 (MSD)	309000-11	X	Matrix Spike Duplicate of MW-2
MW-01 A	309000-12	X	
Dup 2	309000-13	X	Field Duplicate
MW-8	309000-14	X	
P-12	309000-15	X	

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

Appendix A Laboratory Data Package Cover Page

This data package consists of:

- This signature page, the laboratory review checklist, and the following reportable data:
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  b) dilution factors,
  c) preparation methods,
  d) cleanup methods, and
  e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  a) Calculated recovery (%R), and
  b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  a) LCS spiking amounts,
  b) Calculated %R for each analyte, and
  c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  a) Samples associated with the MS/MSD clearly identified,
  b) MS/MSD spiking amounts,
  c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  d) Calculated %Rs and relative percent differences (RPDs), and
  e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  a) the amount of analyte measured in the duplicate,
  b) the calculated RPD, and
  c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.
- The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By me signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: [ ] This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Norman Flynn		Laboratory Director	3/9/06
Name (Printed)	Signature	Official Title (printed)	Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: STL-Houston	LRC Date: 01/31/06
Project Name: UPRR-HWPW-0014419 60	Laboratory Job Number: 309000
Reviewer Name: KRI	Prep Batch Number(s): 146658-SV

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

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: STL-Houston	LRC Date: 01/31/06
Project Name: UPRR-HWPW-0014419 60	Laboratory Job Number: 309000
Reviewer Name: KRI	Prep Batch Number(s): 146658-SV

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

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: STL-Houston	LRC Date: 01/31/06
Project Name: UPRR-HWPW-0014419 60	Laboratory Job Number: 309000
Reviewer Name: KRI	Prep Batch Number(s): 146658-SV

ER #[1]	DESCRIPTION
1	The temperature of coolers GB/56 and GB/82 received by the laboratory on 01/09/06 were below the acceptable range of 2.0-6.0 °C.
2	Thirteen surrogate recoveries were outside acceptance limits due to the dilutions necessary for analyses.
3	The chrysene-d12 and perylene-d12 internal standard areas in samples 309000-2(4X) and 15 were above acceptance limits. The perylene-d12 internal standard area in sample 309000-5(50X) was above acceptance limits. The naphthalene-d8 internal standard areas in samples 309000-7, 8, and 14 were below acceptance limits. All internal standard areas except naphthalene-d8 in sample 309000-13(1X) were above acceptance limits. Per method requirements, no corrective action was required.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

SEVERN TRENT **STL**

CHAIN OF CUSTODY RECORD

309008

Customer Information		Project Information			Analysis/Method	No. 57216-2
PO	726270	PROJECT NAME	99000484/HWPW	A	8260	
WO	0014419/60	LAB NUMBER	BOTTLE ORDER	B	8270LL	
COMPANY	ERM Southwest, Inc.- Houston	BILL TO	Union Pacific Railroad	C	8270SIM	
SEND REPORT TO	Chris Young	INVOICE ATTN	Geoff Reeder	D		
ADDRESS	15810 Park Ten Place	ADDRESS	24125 Aldine Westfield Road	E	Level 2/ TRRP data package	
	Suite 300			F		
				G		
CITY/STATE/ZIP	Houston, TX 77084	CITY/STATE/ZIP	Spring, TX 77373-9015	H		
PHONE	281-600-1000	PHONE	281-350-7197	I		
FAX	281-600-1001	FAX	281-350-7362	J		
				K		
				L		
				M		
				N		
				O		
				P		
				Q		
				R		
				S		

SAMP NO.	SAMPLE DESCRIPTION	PRESERVE	F	SAMPLE MATRIX	SAMPLE DATE	SAMPLE TIME	# CONTAINER	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	· MW-11 A			Water	1/5/06	930	2	X	X	X																
2	· MW-11 B			Water		912	2	X	X	X																
3	· MW-10 A			Water		1107	2	X	X	X																
4	· MW-10 B			Water		1112	2	X	X	X																
5	· P-10			Water		~~1412~~ 1412	2	X	X	X																
6	· Dup-1			Water		~~1417~~ 417	2	X	X	X																
7	· MW-7			Water		1443	2	X	X	X																
8	· FB-010506			Water	↓	1455	2	X	X	X																

Sampler: Jeff Billingsley for B—

Shipment Method:

Airbill No.:

Required TurnAround: 14 Days/28

1. Relinquished By: Jeff Billingsley for B—	Date 1/9/06	2. Relinquished By: Dosia Det	Date 1-9-06	3. Relinquished By:	Date
Company Name: ERM	Time 1000	Company Name: SR	Time 1:12	Company Name:	Time
1. Received By: Dosia Det	Date 1-9-06	2. Received By:	Date 1-9-06	3. Received By:	Date
Company Name: SR	Time 12:40	Company Name:	Time 1512	Company Name:	Time

SEVERN TRENT **STL**

CHAIN OF CUSTODY RECORD

309000

Customer Information		Project Information			Analysis/Method	No. 57216-3
PO	726270	PROJECT NAME	99000484/MWPW	A	8260	
WO	0014419/60	LAB NUMBER	BOTTLE ORDER	B	8270LL	
COMPANY	ERM Southwest, Inc.- Houston	BILL TO	Union Pacific Railroad	C	8270SIM	
SEND REPORT TO	Chris Young	INVOICE ATTN	Geoff Reeder	D		
ADDRESS	15810 Park Ten Place	ADDRESS	24125 Aldine Westfield Road	E	Level 2/ TRRP data package	
	Suite 300			F		
				G		
CITY/STATE/ZIP	Houston, TX 77084	CITY/STATE/ZIP	Spring, TX 77373-9015	H		
PHONE	281-600-1000	PHONE	281-350-7197	I		
FAX	281-600-1001	FAX	281-350-7362	J		
				K		
				L		
				M		
				N		
				O		
				P		
				Q		
				R		
				S		

SAMP NO.	SAMPLE DESCRIPTION	PRESERVE	F	SAMPLE MATRIX	SAMPLE DATE	SAMPLE TIME	# CONTAINER	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	· MW-2			Water	1/5/06	1643	2	X	X	X																
2	· MW-2 (MS)			Water		1705	2	X	X	X																
3	· MW-2 (MSD)			Water		1725	2	X	X	X																
4	· MW-01A			Water	1/6/06	1443	2	X	X	X																
5	· Dup 2			Water		417	2	X	X	X																
6	· MW-8			Water		1613	2	X	X	X																
7	· P-12			Water		1727	2	X	X	X																
8	·			Water																						

Required TurnAround: 14 Days/28

Sampler: Jeff Billingsley

Shipment Method:

Airbill No.:

1. Relinquished By: Jeff Billingsley	Date 1/9/06	2. Relinquished By:	Date 1-9-06	3. Relinquished By:	Date
Company Name: ERM	Time 1000	Company Name: SGS	Time 1:12	Company Name:	Time
1. Received By:	Date 1-9-06	2. Received By:	Date 1-9-06	3. Received By:	Date
Company Name: SGS	Time 12:40	Company Name: SGS	Time 1:12	Company Name:	Time

rpjsckl | Job Sample Receipt Checklist Report | V2

Job Number.: 309000 Location.: 57216 Check List Number.: 1 Description.:
Customer Job ID.....: Job Check List Date.: 01/09/2006 Date of the Report..: 01/09/2006
Project Number.: 99000484 Project Description.: UPRR-HWPW-0014419/60 Project Manager.....: sgk
Customer.....: ERM Southwest, Inc.- Houston Contact.: Chris Young

Questions ?	(Y/N)	Comments
Chain of Custody Received?	Y	
...If "yes", completed properly?	Y	
Custody seal on shipping container?	Y	
...If "yes", custody seal intact?	Y	
Custody seals on sample containers?	N	
...If "yes", custody seal intact?		
Samples chilled?	Y	
Temperature of cooler acceptable? (4 deg C +/- 2).	Y	0.8 1.6 2.3
...If "no", is sample an air matrix?(no temp req.)		
Thermometer ID	Y	430
Samples received intact (good condition)?	Y	
Volatile samples acceptable? (no headspace)		
Correct containers used?	Y	
Adequate sample volume provided?	Y	
Samples preserved correctly?	Y	
Samples received within holding-time?	Y	
Agreement between COC and sample labels?	Y	
Radioactivity at or below background levels?	Y	
Additional		
Comments		
Sample Custodian Signature/Date		MT

1-9-6

Page 1

STL HOUSTON - SAMPLE RECEIPT CHECKLIST

CLIENT NAME: F. R. M CARRIER/DRIVER NAME: FF

PROJECT: _____ UNPACKED BY: _____

DATE RECEIVED: _____ UNPACKED STAMP: _____

TOTAL # COOLERS RECEIVED: 1

COOLER CHECKLIST

COOLER ID	COC PRESENT (Y/N)	CUSTODY TAPE		COOLER TEMP (°C)	THERM ID	TEMP BLK PRESENT (Y/N)	List Sample Bottles in Each Cooler if out of Temperature
		PRESENT (Y/N)	INTACT (Y/N)				
GB/360-00	Y	C Y	Y	0.8	430	Y	
		B					
GB/82	Y	C Y	Y	1.6	430	Y	
		B					
GB/83	Y	C Y	Y	2.3	430	Y	
		B					

C = COOLER B = BOTTLES

COOLER(S) SCREENED FOR RADIATION? Yes / No ___ IF TEMP BLK N, HOW WAS TEMP TAKEN: —

SHORT HOLD / RUSH SAMPLES (include department delivered to and time delivered)

_____

_____

****

SPECIFIC PROJECT INFORMATION

JOB NUMBER: 630900

VOLATILE HEADSPACE ACCEPTABLE? Yes ____ No ____ NA ____
(If ANY headspace is present, list details in INCONSISTENCIES section)

Marked As Preserved? Yes ____ No ____

Number of VOA Vials: _____

pH OF WATER SAMPLES

PRESERVATION	# BOTTLES	CORRECT pH (Y/N)	If N, List sample ID and Corresponding pH
H2SO4 (<2)			
HNO3 (<2)			
HCL (<2) (Not VOA Vials)			
NaOH – Cyanide (>12)			
NaOH/Zn Acetate – Sulfide (>9)			
Other			

OF NEAT BOTTLES: _____

OF SOIL JARS: _____

INCONSISTENCIES – Place in Job Notes as well (CTRL F-12)

_____

_____

_____

_____

ACTION TAKEN

PERSON CONTACTED: _____ DATE: _____

RESOLUTION _____

_____

_____

NOTES _____

_____

_____

(Use back of sheet if necessary)

Project Manager _____

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: MW-11 A

Date/Time Sampled .....: 1/5/2006 09:30

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-001

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
2-Methylnaphthalene	91-57-6	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 10:55	147301	1.00	lg1
Acenaphthene	83-32-9	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 10:55	147301	1.00	lg1
Acenaphthylene	208-96-8	0.0000600	U		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 10:55	147301	1.00	lg1
Anthracene	120-12-7	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 10:55	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000363	U		0.000370	0.000500	0.000363	mg/L	1/13/2006 10:55	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0000800	U		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 10:55	147301	1.00	lg1
Fluoranthene	206-44-0	0.000516			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 10:55	147301	1.00	lg1
Fluorene	86-73-7	0.0000800	J		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 10:55	147301	1.00	lg1
Naphthalene	91-20-3	0.0000600	U		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 10:55	147301	1.00	lg1
Phenanthrene	85-01-8	0.0000900	U		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 10:55	147301	1.00	lg1
Pyrene	129-00-0	0.000110	J		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 10:55	147301	1.00	lg1

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: MW-11 B

Date/Time Sampled .....: 1/5/2006 09:12

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-002

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
Acenaphthene	83-32-9	0.0537			0.0000700	0.000500	0.000300	mg/L	1/16/2006 18:26	147301	4.00	lg1
Acenaphthylene	208-96-8	0.000617			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 11:54	147301	1.00	lg1
Anthracene	120-12-7	0.00269			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 11:54	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000352	U		0.000370	0.000500	0.000352	mg/L	1/13/2006 11:54	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0261			0.0000800	0.000500	0.000300	mg/L	1/16/2006 18:26	147301	4.00	lg1
Di-n-butyl Phthalate	84-74-2	0.000130	J	u	0.000110	0.000500	0.000105	mg/L	1/13/2006 11:54	147301	1.00	lg1
Fluoranthene	206-44-0	0.00189			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 11:54	147301	1.00	lg1
Fluorene	86-73-7	0.0259			0.0000700	0.000500	0.000300	mg/L	1/16/2006 18:26	147301	4.00	lg1
Naphthalene	91-20-3	0.00250			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 11:54	147301	1.00	lg1
Phenol	108-95-2	0.0000400	U		0.0000400	0.000500	0.0000400	mg/L	1/13/2006 11:54	147301	1.00	lg1
Pyrene	129-00-0	0.000873			0.0000900	0.000500	0.0000900	mg/L	1/13/2006 11:54	147301	1.00	lg1

3/9/06 DH

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: MW-10 A

Date/Time Sampled .....: 1/5/2006 11:07

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-003

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
2-Methylnaphthalene	91-57-6	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 12:23	147301	1.00	lg1
Acenaphthene	83-32-9	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 12:23	147301	1.00	lg1
Acenaphthylene	208-96-8	0.0000600	U		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 12:23	147301	1.00	lg1
Anthracene	120-12-7	0.000110	J		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 12:23	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000359	U		0.000370	0.000500	0.000359	mg/L	1/13/2006 12:23	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0000800	U		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 12:23	147301	1.00	lg1
Fluoranthene	206-44-0	0.0000800	U		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 12:23	147301	1.00	lg1
Fluorene	86-73-7	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 12:23	147301	1.00	lg1
Naphthalene	91-20-3	0.0000600	U		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 12:23	147301	1.00	lg1
Phenanthrene	85-01-8	0.0000900	U		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 12:23	147301	1.00	lg1
Pyrene	129-00-0	0.0000900	U		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 12:23	147301	1.00	lg1

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: MW-10 B

Date/Time Sampled .....: 1/5/2006 11:12

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-004

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
Acenaphthene	83-32-9	0.0113			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 12:53	147301	1.00	lg1
Acenaphthylene	208-96-8	0.000711			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 12:53	147301	1.00	lg1
Anthracene	120-12-7	0.000556			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 12:53	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000356	U		0.000370	0.000500	0.000356	mg/L	1/13/2006 12:53	147301	1.00	lg1
Dibenzofuran	132-64-9	0.000200	J		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 12:53	147301	1.00	lg1
Di-n-butyl Phthalate	84-74-2	0.000106	U		0.000110	0.000500	0.000106	mg/L	1/13/2006 12:53	147301	1.00	lg1
Fluoranthene	206-44-0	0.000649			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 12:53	147301	1.00	lg1
Fluorene	86-73-7	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 12:53	147301	1.00	lg1
Naphthalene	91-20-3	0.0000600	U		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 12:53	147301	1.00	lg1
Phenol	108-95-2	0.0000400	U		0.0000400	0.000500	0.0000400	mg/L	1/13/2006 12:53	147301	1.00	lg1
Pyrene	129-00-0	0.000380	J		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 12:53	147301	1.00	lg1

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: P-10

Date/Time Sampled .....: 1/5/2006 14:12

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-005

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
Acenaphthene	83-32-9	0.102			0.0000700	0.000500	0.000300	mg/L	1/16/2006 18:56	147301	5.00	lg1
Acenaphthylene	208-96-8	0.0000600	U		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 13:22	147301	1.00	lg1
Anthracene	120-12-7	0.00570			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 13:22	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000359	U		0.000370	0.000500	0.000359	mg/L	1/13/2006 13:22	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0325			0.0000800	0.000500	0.000400	mg/L	1/16/2006 18:56	147301	5.00	lg1
Di-n-butyl Phthalate	84-74-2	0.000107	U		0.000110	0.000500	0.000107	mg/L	1/13/2006 13:22	147301	1.00	lg1
Fluoranthene	206-44-0	0.00273			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 13:22	147301	1.00	lg1
Fluorene	86-73-7	0.0480			0.0000700	0.000500	0.000300	mg/L	1/16/2006 18:56	147301	5.00	lg1
Naphthalene	91-20-3	0.433			0.0000600	0.000500	0.00300	mg/L	1/16/2006 19:25	147301	50.0	lg1
Phenol	108-95-2	0.0000400	U		0.0000400	0.000500	0.0000400	mg/L	1/13/2006 13:22	147301	1.00	lg1
Pyrene	129-00-0	0.00108			0.0000900	0.000500	0.0000900	mg/L	1/13/2006 13:22	147301	1.00	lg1

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: Dup-1

Date/Time Sampled .....: 1/5/2006 04:17

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-006

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
Acenaphthene	83-32-9	0.0971			0.0000700	0.000500	0.000300	mg/L	1/16/2006 19:55	147301	5.00	lg1
Acenaphthylene	208-96-8	0.000370	J		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 13:51	147301	1.00	lg1
Anthracene	120-12-7	0.00492			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 13:51	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000352	U		0.000370	0.000500	0.000352	mg/L	1/13/2006 13:51	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0289			0.0000800	0.000500	0.000400	mg/L	1/16/2006 19:55	147301	5.00	lg1
Di-n-butyl Phthalate	84-74-2	0.000105	U		0.000110	0.000500	0.000105	mg/L	1/13/2006 13:51	147301	1.00	lg1
Fluoranthene	206-44-0	0.00255			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 13:51	147301	1.00	lg1
Fluorene	86-73-7	0.0490			0.0000700	0.000500	0.000300	mg/L	1/16/2006 19:55	147301	5.00	lg1
Naphthalene	91-20-3	0.439			0.0000600	0.000500	0.00300	mg/L	1/16/2006 20:24	147301	50.0	lg1
Phenol	108-95-2	0.0000400	U		0.0000400	0.000500	0.0000400	mg/L	1/13/2006 13:51	147301	1.00	lg1
Pyrene	129-00-0	0.000993			0.0000900	0.000500	0.0000900	mg/L	1/13/2006 13:51	147301	1.00	lg1

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: MW-7

Date/Time Sampled .....: 1/5/2006 14:43

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-007

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
2-Methylnaphthalene	91-57-6	0.0000700	U	J	0.0000700	0.000500	0.0000700	mg/L	1/13/2006 14:20	147301	1.00	lg1
Acenaphthene	83-32-9	0.00286			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 14:20	147301	1.00	lg1
Acenaphthylene	208-96-8	0.0000800	J		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 14:20	147301	1.00	lg1
Anthracene	120-12-7	0.000537			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 14:20	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000422	J		0.000370	0.000500	0.000352	mg/L	1/13/2006 14:20	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0000900	J		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 14:20	147301	1.00	lg1
Fluoranthene	206-44-0	0.0000800	U		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 14:20	147301	1.00	lg1
Fluorene	86-73-7	0.000380	J		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 14:20	147301	1.00	lg1
Naphthalene	91-20-3	0.000190	J	JH	0.0000600	0.000500	0.0000600	mg/L	1/13/2006 14:20	147301	1.00	lg1
Phenanthrene	85-01-8	0.0000900	U		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 14:20	147301	1.00	lg1
Pyrene	129-00-0	0.0000900	U		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 14:20	147301	1.00	lg1

3/9/06 DH

3/9/06 DH

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: FB-010506

Date/Time Sampled .....: 1/5/2006 14:55

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-008

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: FB-010506

Date/Time Sampled .....: 1/5/2006 14:55

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-008

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst	
Method: SW-846 8270C, Water													
2-Methylnaphthalene	91-57-6	0.0000700	U	uj	0.0000700	0.000500	0.0000700	mg/L	1/13/2006 14:49	147301	1.00	lg1	3/9/06 DH
Acenaphthene	83-32-9	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 14:49	147301	1.00	lg1	
Acenaphthylene	208-96-8	0.0000600	U		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 14:49	147301	1.00	lg1	
Anthracene	120-12-7	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 14:49	147301	1.00	lg1	
bis(2-ethylhexyl)phthalate	117-81-7	0.000352	U		0.000370	0.000500	0.000352	mg/L	1/13/2006 14:49	147301	1.00	lg1	
Dibenzofuran	132-64-9	0.0000800	U		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 14:49	147301	1.00	lg1	
Di-n-butyl Phthalate	84-74-2	0.000172	J	u	0.000110	0.000500	0.000105	mg/L	1/13/2006 14:49	147301	1.00	lg1	3/9/06 DH
Fluoranthene	206-44-0	0.0000800	U		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 14:49	147301	1.00	lg1	
Fluorene	86-73-7	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 14:49	147301	1.00	lg1	
Naphthalene	91-20-3	0.0000600	U	uj	0.0000600	0.000500	0.0000600	mg/L	1/13/2006 14:49	147301	1.00	lg1	3/9/06 DH
Phenanthrene	85-01-8	0.0000900	U		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 14:49	147301	1.00	lg1	
Phenol	108-95-2	0.0000400	U		0.0000400	0.000500	0.0000400	mg/L	1/13/2006 14:49	147301	1.00	lg1	
Pyrene	129-00-0	0.0000900	U		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 14:49	147301	1.00	lg1	

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: MW-2

Date/Time Sampled .....: 1/5/2006 16:43

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-009

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
2-Methylnaphthalene	91-57-6	0.000460	J		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 09:28	147301	1.00	lg1
Acenaphthene	83-32-9	0.0142			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 09:28	147301	1.00	lg1
Acenaphthylene	208-96-8	0.00128			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 09:28	147301	1.00	lg1
Anthracene	120-12-7	0.000857			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 09:28	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000370	U		0.000370	0.000500	0.000370	mg/L	1/13/2006 09:28	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0152			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 09:28	147301	1.00	lg1
Fluoranthene	206-44-0	0.00113			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 09:28	147301	1.00	lg1
Fluorene	86-73-7	0.0148			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 09:28	147301	1.00	lg1
Naphthalene	91-20-3	0.00530			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 09:28	147301	1.00	lg1
Phenanthrene	85-01-8	0.000240	J		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 09:28	147301	1.00	lg1
Pyrene	129-00-0	0.000410	J		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 09:28	147301	1.00	lg1

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: MW-2 (MS)

Date/Time Sampled .....: 1/5/2006 17:05

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-010

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146661	1.00	mra
Method: SW-846 8270C, Water												
2-Methylnaphthalene	91-57-6	0.00728			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 09:57	147301	1.00	lg1
Acenaphthene	83-32-9	0.0349			0.0000700	0.000500	0.000100	mg/L	1/16/2006 17:28	147301	2.00	lg1
Acenaphthylene	208-96-8	0.00802			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 09:57	147301	1.00	lg1
Anthracene	120-12-7	0.0120			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 09:57	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.00762			0.000370	0.000500	0.000370	mg/L	1/13/2006 09:57	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0189			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 09:57	147301	1.00	lg1
Fluoranthene	206-44-0	0.00990			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 09:57	147301	1.00	lg1
Fluorene	86-73-7	0.0197			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 09:57	147301	1.00	lg1
Naphthalene	91-20-3	0.0117			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 09:57	147301	1.00	lg1
Phenanthrene	85-01-8	0.00634			0.0000900	0.000500	0.0000900	mg/L	1/13/2006 09:57	147301	1.00	lg1
Pyrene	129-00-0	0.00903			0.0000900	0.000500	0.0000900	mg/L	1/13/2006 09:57	147301	1.00	lg1

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: MW-2 (MSD)

Date/Time Sampled .....: 1/5/2006 17:25

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-011

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146661	1.00	mra
Method: SW-846 8270C, Water												
2-Methylnaphthalene	91-57-6	0.00770			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 10:26	147301	1.00	lg1
Acenaphthene	83-32-9	0.0254			0.0000700	0.000500	0.000100	mg/L	1/16/2006 17:57	147301	2.00	lg1
Acenaphthylene	208-96-8	0.00815			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 10:26	147301	1.00	lg1
Anthracene	120-12-7	0.0119			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 10:26	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.00771			0.000370	0.000500	0.000370	mg/L	1/13/2006 10:26	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0212			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 10:26	147301	1.00	lg1
Fluoranthene	206-44-0	0.0107			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 10:26	147301	1.00	lg1
Fluorene	86-73-7	0.0229			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 10:26	147301	1.00	lg1
Naphthalene	91-20-3	0.0144			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 10:26	147301	1.00	lg1
Phenanthrene	85-01-8	0.00722			0.0000900	0.000500	0.0000900	mg/L	1/13/2006 10:26	147301	1.00	lg1
Pyrene	129-00-0	0.00941			0.0000900	0.000500	0.0000900	mg/L	1/13/2006 10:26	147301	1.00	lg1

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston PROJECT: UPRR-HWPW-0014419 60 ATTN: Chris Young

Customer Sample ID: MW-01 A

Date/Time Sampled .....: 1/6/2006 14:43

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-012

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
2-Methylnaphthalene	91-57-6	0.00169			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 15:18	147301	1.00	lg1
Acenaphthene	83-32-9	0.0937			0.0000700	0.000500	0.000700	mg/L	1/16/2006 20:53	147301	10.0	lg1
Acenaphthylene	208-96-8	0.00387			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 15:18	147301	1.00	lg1
Anthracene	120-12-7	0.00210			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 15:18	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000356	U		0.000370	0.000500	0.000356	mg/L	1/13/2006 15:18	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0143			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 15:18	147301	1.00	lg1
Fluoranthene	206-44-0	0.00557			0.0000800	0.000500	0.0000800	mg/L	1/13/2006 15:18	147301	1.00	lg1
Fluorene	86-73-7	0.0221			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 15:18	147301	1.00	lg1
Naphthalene	91-20-3	0.000519			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 15:18	147301	1.00	lg1
Phenanthrene	85-01-8	0.000650			0.0000900	0.000500	0.0000900	mg/L	1/13/2006 15:18	147301	1.00	lg1
Pyrene	129-00-0	0.00250			0.0000900	0.000500	0.0000900	mg/L	1/13/2006 15:18	147301	1.00	lg1

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: Dup 2

Date/Time Sampled .....: 1/6/2006 04:17

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-013

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
2-Methylnaphthalene	91-57-6	0.00306			0.0000700	0.000500	0.0000700	mg/L	1/13/2006 15:47	147301	1.00	lg1
Acenaphthene	83-32-9	0.0917			0.0000700	0.000500	0.000300	mg/L	1/16/2006 21:23	147301	5.00	lg1
Acenaphthylene	208-96-8	0.00350		JL	0.0000600	0.000500	0.0000600	mg/L	1/13/2006 15:47	147301	1.00	lg1
Anthracene	120-12-7	0.00199		JL	0.0000700	0.000500	0.0000700	mg/L	1/13/2006 15:47	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000359	U		0.000370	0.000500	0.000359	mg/L	1/13/2006 15:47	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0195		JL	0.0000800	0.000500	0.0000800	mg/L	1/13/2006 15:47	147301	1.00	lg1
Fluoranthene	206-44-0	0.00550		JL	0.0000800	0.000500	0.0000800	mg/L	1/13/2006 15:47	147301	1.00	lg1
Fluorene	86-73-7	0.0275			0.0000700	0.000500	0.000300	mg/L	1/16/2006 21:23	147301	5.00	lg1
Naphthalene	91-20-3	0.000798			0.0000600	0.000500	0.0000600	mg/L	1/13/2006 15:47	147301	1.00	lg1
Phenanthrene	85-01-8	0.000660		JL	0.0000900	0.000500	0.0000900	mg/L	1/13/2006 15:47	147301	1.00	lg1
Pyrene	129-00-0	0.00253		JL	0.0000900	0.000500	0.0000900	mg/L	1/13/2006 15:47	147301	1.00	lg1

3/9/06 DH 3/9/06 DH 3/9/06 DH 3/9/06 DH 3/9/06 DH

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000

Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Customer Sample ID: MW-8

Date/Time Sampled .....: 1/6/2006 16:12

Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-014

Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
2-Methylnaphthalene	91-57-6	0.0000700	U	u5	0.0000700	0.000500	0.0000700	mg/L	1/13/2006 16:16	147301	1.00	lg1
Acenaphthene	83-32-9	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 16:16	147301	1.00	lg1
Acenaphthylene	208-96-8	0.0000600	U		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 16:16	147301	1.00	lg1
Anthracene	120-12-7	0.000110	J		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 16:16	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000363	U		0.000370	0.000500	0.000363	mg/L	1/13/2006 16:16	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0000800	U		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 16:16	147301	1.00	lg1
Fluoranthene	206-44-0	0.0000800	U		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 16:16	147301	1.00	lg1
Fluorene	86-73-7	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 16:16	147301	1.00	lg1
Naphthalene	91-20-3	0.0000600	U	u5	0.0000600	0.000500	0.0000600	mg/L	1/13/2006 16:16	147301	1.00	lg1
Phenanthrene	85-01-8	0.0000900	U		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 16:16	147301	1.00	lg1
Pyrene	129-00-0	0.0000900	U		0.0000900	0.000500	0.0000900	mg/L	1/13/2006 16:16	147301	1.00	lg1

3/9/06 AH

3/9/06 AH

Form I

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

TRRP Laboratory Test Results

Job Number: 309000 Date: 3/8/2006

CUSTOMER: ERM Southwest, Inc.- Houston PROJECT: UPRR-HWPW-0014419 60 ATTN: Chris Young

Customer Sample ID: P-12
Date/Time Sampled .....: 1/6/2006 17:27
Date/Time Received .....: 1/9/2006 13:12

Laboratory Sample ID: 309000-015
Sample Matrix .....: Water

TEST METHOD	CAS #	RESULT	Q	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 3510C, Water												
Separatory Funnel Liq/Liq Extraction	NA	Complete						N/A	1/11/2006 16:00	146658	1.00	mra
Method: SW-846 8270C, Water												
Acenaphthene	83-32-9	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 16:45	147301	1.00	lg1
Acenaphthylene	208-96-8	0.0000600	U		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 16:45	147301	1.00	lg1
Anthracene	120-12-7	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 16:45	147301	1.00	lg1
bis(2-ethylhexyl)phthalate	117-81-7	0.000352	U		0.000370	0.000500	0.000352	mg/L	1/13/2006 16:45	147301	1.00	lg1
Dibenzofuran	132-64-9	0.0000800	U		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 16:45	147301	1.00	lg1
Di-n-butyl Phthalate	84-74-2	0.000105	U		0.000110	0.000500	0.000105	mg/L	1/13/2006 16:45	147301	1.00	lg1
Fluoranthene	206-44-0	0.0000800	U		0.0000800	0.000500	0.0000800	mg/L	1/13/2006 16:45	147301	1.00	lg1
Fluorene	86-73-7	0.0000700	U		0.0000700	0.000500	0.0000700	mg/L	1/13/2006 16:45	147301	1.00	lg1
Naphthalene	91-20-3	0.0000600	U		0.0000600	0.000500	0.0000600	mg/L	1/13/2006 16:45	147301	1.00	lg1
Phenol	108-95-2	0.0000400	U		0.0000400	0.000500	0.0000400	mg/L	1/13/2006 16:45	147301	1.00	lg1
Pyrene	129-00-0	0.00615		JL	0.0000900	0.000500	0.0000900	mg/L	1/13/2006 16:45	147301	1.00	lg1

3/4/06 AA

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

QUALITY CONTROL RESULTS

Job Number.: 309000 Report Date.: 03/08/2006

CUSTOMER: ERM Southwest, Inc.- Houston PROJECT: UPRR-HWPW-0014419 60 ATTN: Chris Young

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: SW-846 8270C Units.....: ug/L Analyst...: lg1
Method Description.: Semivolatile Organics, Low Level Batch(s)...: 147301

LCS	Laboratory Control Sample	SVS120205A	146658		01/13/2006	0858

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Acenaphthene, Water	8.64517		10.0		86.5		32-165	
Acenaphthylene, Water	8.61432		10.0		86.1		10-150	
Anthracene, Water	9.79179		10.0		97.9		23-178	
bis(2-ethylhexyl)phthalate, Water	9.40884		10.0		94.1		25-173	
Dibenzofuran, Water	8.91532		10.0		89.2		35-153	
Di-n-butyl Phthalate, Water	9.32532		10.0		93.3		28-185	
Fluoranthene, Water	9.45106		10.0		94.5		28-180	
Fluorene, Water	9.00928		10.0		90.1		30-189	
2-Methylnaphthalene, Water	8.50591		10.0		85.1		26-168	
Naphthalene, Water	8.32689		10.0		83.3		36-139	
Phenanthrene, Water	9.27275		10.0		92.7		26-166	
Pyrene, Water	9.22969		10.0		92.3		28-173	
Phenol, Water	4.04815		10.0		40.5		20-83	

MB	Method Blank	SVS120105A	146658		01/13/2006	0829

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Acenaphthene, Water	0							
Acenaphthylene, Water	0							
Anthracene, Water	0							
bis(2-ethylhexyl)phthalate, Water	0							
Dibenzofuran, Water	0							
Di-n-butyl Phthalate, Water	0.11930							
Fluoranthene, Water	0							
Fluorene, Water	0							
2-Methylnaphthalene, Water	0							
Naphthalene, Water	0							
Phenanthrene, Water	0							
Pyrene, Water	0							
Phenol, Water	0							

MS	Matrix Spike	SVS120205A	309000-10		01/13/2006	0957

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Acenaphthylene, Water	8.01746		10.0	1.27732	67		30-130	
Anthracene, Water	11.9679		10.0	0.85714	111		30-130	
bis(2-ethylhexyl)phthalate, Water	7.62319		10.0	0.25133	74		60-140	
Dibenzofuran, Water	18.9410		10.0	15.1874	38		30-130	
Di-n-butyl Phthalate, Water	8.41400		10.0	0.25439	82		30-130	
Fluoranthene, Water	9.89670		10.0	1.13243	88		30-130	
Fluorene, Water	19.7302		10.0	14.7622	50		30-130	
2-Methylnaphthalene, Water	7.27843		10.0	0.45826	68		60-140	
Naphthalene, Water	11.7484		10.0	5.30035	64		30-130	
Phenanthrene, Water	6.34004		10.0	0.23724	61		30-130	
Pyrene, Water	9.02927		10.0	0.41377	86		26-115	
Phenol, Water	1.83340		10.0	0	18		10-112	

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

QUALITY CONTROL RESULTS

Job Number.: 309000

Report Date.: 03/08/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MSD	Matrix Spike Duplicate	SVS120205A	309000-11		01/13/2006	1026

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Acenaphthylene, Water	8.15171	8.01746	10.0	1.27732	69		30-130	
					1.7		50.0	
Anthracene, Water	11.8619	11.9679	10.0	0.85714	110		30-130	
					0.9		50.0	
bis(2-ethylhexyl)phthalate, Water	7.70687	7.62319	10.0	0.25133	75		60-140	
					1.1		30.0	
Dibenzofuran, Water	21.2369	18.9410	10.0	15.1874	60		30-130	
					11.4		50.0	
Di-n-butyl Phthalate, Water	9.28001	8.41400	10.0	0.25439	90		30-130	
					9.8		50.0	
Fluoranthene, Water	10.6751	9.89670	10.0	1.13243	95		30-130	
					7.6		50.0	
Fluorene, Water	22.8550	19.7302	10.0	14.7622	81		30-130	
					14.7		50.0	
2-Methylnaphthalene, Water	7.69998	7.27843	10.0	0.45826	72		60-140	
					5.6		30.0	
Naphthalene, Water	14.3776	11.7484	10.0	5.30035	91		30-130	
					20.1		50.0	
Phenanthrene, Water	7.21716	6.34004	10.0	0.23724	70		30-130	
					12.9		50.0	
Pyrene, Water	9.40871	9.02927	10.0	0.41377	90		26-115	
					4.1		31.0	
Phenol, Water	1.51776	1.83340	10.0	0	15		10-112	
					18.8		23.0	

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

SURROGATE RECOVERIES REPORT

Job Number.: 309000

Report Date.: 03/08/2006

CUSTOMER: ERM Southwest, Inc.- Houston PROJECT: UPRR-HWPW-0014419 60 ATTN: Chris Young

Method.....: Semivolatile Organics, Low Level
Batch(s).....: 147301

Method Code...: 8270LL
Test Matrix...: Water

Prep Batch....: 146658
Equipment Code: EGCMS06

Lab ID	DT	Sample ID	Date	246TBP	2FLUBP	2FLUPH	NITRD5	PHEND6	TERD14
309000- 1		MW-11 A	01/13/2006	89.8	54.7	32.3	67.5	10.2	92.8
309000- 2		MW-11 B	01/13/2006	90.9	65.2	27.7	57.1	10.5	88.5
309000- 2		MW-11 B	01/16/2006	93.8	65.9	39.5	44.0	8.2d	90.1
309000- 3		MW-10 A	01/13/2006	95.0	45.3	32.8	62.3	10.6	79.4
309000- 4		MW-10 B	01/13/2006	85.3	49.7	27.6	55.7	13.9	78.3
309000- 5		P-10	01/13/2006	90.0	77.7	41.5	89.4	17.2	94.6
309000- 5		P-10	01/16/2006	94.6	65.3	39.5	48.3	9.1d	90.2
309000- 5		P-10	01/16/2006	0.0d	0.0d	36.7	0.0d	32.3	90.5
309000- 6		Dup-1	01/13/2006	75.4	71.8	34.4	75.4	13.3	79.7
309000- 6		Dup-1	01/16/2006	88.3	62.4	31.5	48.4	9.1d	87.0
309000- 6		Dup-1	01/16/2006	0.0d	0.0d	0.0d	0.0d	0.0d	78.1
309000- 7		MW-7	01/13/2006	71.4	57.4	27.3	61.3	11.8	81.1
309000- 8		FB-010506	01/13/2006	112.6	73.3	32.7	69.0	10.8	93.2
309000- 9		MW-2	01/13/2006	80.3	76.5	34.9	73.6	20.6	92.8
309000- 10		MW-2 (MS)	01/13/2006	85.6	71.8	37.8	66.3	17.5	85.0
309000- 10		MW-2 (MS)	01/16/2006	140.7d	114.3	75.8	98.2	30.9	128.6
309000- 10	MS	MW-2 (MS)	01/13/2006	85.6	71.8	37.8	66.3	17.5	85.0
309000- 11		MW-2 (MSD)	01/13/2006	101.7	74.4	40.4	70.3	14.4	91.5
309000- 11		MW-2 (MSD)	01/16/2006	88.0	63.7	48.6	58.4	19.1	73.5
309000- 11	MSD	MW-2 (MSD)	01/13/2006	101.7	74.4	40.4	70.3	14.4	91.5
309000- 12		MW-01 A	01/13/2006	92.4	70.6	32.3	70.6	11.4	87.7
309000- 12		MW-01 A	01/16/2006	110.9	72.5	39.6	55.1	4.8d	94.6
309000- 13		Dup 2	01/13/2006	100.3	78.8	29.8	64.8	10.4	85.8
309000- 13		Dup 2	01/16/2006	111.7	62.8	37.8	52.4	10.9	95.4
309000- 14		MW-8	01/13/2006	102.6	83.8	26.0	49.1	11.8	70.1
309000- 15		P-12	01/13/2006	94.1	64.9	25.9	49.3	12.2	86.8
146658--21	LCS		01/13/2006	98.8	88.0	49.7	85.8	37.7	99.3
146658--21	MB		01/13/2006	86.6	86.3	53.9	93.7	35.2	97.2

Test	Test Description	Limits
246TBP	2,4,6-Tribromophenol	10 - 123
2FLUBP	2-Fluorobiphenyl	43 - 116
2FLUPH	2-Fluorophenol	21 - 100
NITRD5	Nitrobenzene-d5	35 - 114
PHEND6	Phenol-d6	10 - 94
TERD14	Terphenyl-d14	33 - 141

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 03/08/2006

REPORT COMMENTS

1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
2) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
3) According to 40CFR Part 136.3, pH, Chlorine Residual, and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field,(e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.
4) For all USACE projects, the QC limits are based on "mean +/- 2 sigma", which are the warning limits.

General Information:

- Cresylic Acid is the combination of o,m and p-Cresol. The combination is reportesd as the final result.
- m-Cresol and p-Cresol co-elute. The result of the two is reported as either m&p-cresol or as p-cresol.
- m-Xylene and p-Xylene co-elute. The result of the two is reported as m,p-Xylene.
- N-Nitrosodiphenylamine decomposes in the gas chromatograph inlet forming dipheylamine and, consequently, may be detected as diphenylamine.
- Methylene Chloride and Acetone are recognized potential laboratory contaminants. Its presence in the sample up to five times the amount reported in the blank may be attributed to laboratory contamination.
- Trimethysilyl(Diazomethane) is used to esterify acid herbicides in Method SW-846 8151A.
- For Inorganic analyses, duplicate QC limits are determined as follows: If the sample result is less than or equal to 5 times the reporting limit, the RPD limit is equal to the reporting limit. If the sample result is greater than 5 times the reporting limit, the RPD limit is the method defined RPD.

Explanation of Qualifiers:

U - This qualifier indicates that the analyte was analyzed but not detected.
J - (Organics only) This qualifier indicates that the analyte is an estimated value between the RL and the MDL.
B - (Inorganics only) This Qualifier indicates that the analyte is an estimated value between the RL and the MDL.
N - (Organics only) This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic charachterization of a TIC, such as "chlorinated hydrocarbon", the "N" flag is not used.

Explanation of General QC Outliers:

A - Matrix interference present in sample.
a - MS/MSD analyses yielded comparable poor recoveries, indicating a possible matrix interference. Method performance is demonstrated by acceptable LCS recoveries.
b - Target analyte was found in the method blank.
M - QC sample analysis yielded recoveries outside QC acceptance criteria. This sample was reanalyzed.
L - LCS analysis yielded high recoveries, indicating a potential high bias. No target analytes were observed above the RL in the associated samples.
G - Marginal outlier within 1% of acceptance criteria.
r - RPD value is outside method acceptance criteria.
C - Poor RPD values observed due to the non-homogenous nature of the sample.
O - Sample required dilution due to matrix interference.
D - Sample reported from a dilution.
d - Spike and/or surrogate diluted.
P - The recovery of this analyte is outside default QC limits. The data is accepted and will be used to calculate in-house statistical limits.
E - The reported concentration exceeds the instrument calibration.
F - The analyte is outside QC limits. The sample data is accepted since this analyte is not reported in associated samples.
H - Continuing Calibration Verification (CCV) standard is not associated with the samples reported.
q - See the subcontract final report for qualifier explanation.

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 03/08/2006

W - The MS/MSD recoveries are outside QC acceptance criteria because the amount spiked is much less than the amount found in the sample.
K - High recovery will not affect the quality of reported results.
Z - See case narrative.

Explanation of Organic QC Outliers:

e - Method blank analysis yielded phthalate concentrations above the RL. Phthlates are recognized potential laboratory contaminants. Its presence in the sample up to five times the amount reported in the blank may be attributed to laboratory contamination.
S - Sample reanalyzed/reextracted due to poor surrogate recovery. Reanalysis confirmed original analysis indicating a possible matrix interference.
T - Sample analysis yielded poor surrogate recovery.
R - The RPD between the two GC columns is greater than 40% and no anomalies are present. The higher result is reported as per EPA Method 8000B.
I - The RPD between the two GC columns is greater than 40% and anomalies are present. The lower of the two results has been reported.
X - Gaseous compound. In-house QC limits are advisory.
Y - Ketone compounds have poor purge efficiency. In-house QC limits are advisory.
f - Surrogate not associated with reported analytes.

Explanation of Inorganic QC Outliers:

Q - Method blank analysis yielded target analytes above the RL. Associated sample results are greater than 10 times the concentrations observed in the method blank.
V - The RPD control limit for sample results less than 5 times the RL is +/- the RL value. Sample and duplicate results are within method acceptance criteria.
e - Serial dilution failed due to matrix interference.
g - Sample result quantitated by Method of Standard Additions (MSA) due to the analytical spike recovery being below 85 percent. The correlation coefficent for the MSA is greater than or equal to 0.995.
s - BOD/cBOD seed value is not within method acceptance criteria. Due to the nature of the test method, the sample cannot be reanalyzed.
l - BOD/cBOD LCS value is not within method acceptance criteria. Due to the nature of the test method, sample cannot be reanalyzed.
N - Spiked sample recovery is not within control limits.
n - Sample result quantitated by Method of Standard Additions (MSA) due to the analytical spike recovery being below 85 percent. The correlation coefficient for the MSA is less than 0.995.
* - Duplicate analysis is not within control limits.

Abbreviations:

Batch - Designation given to identify a specific extraction, digestion, preparation, or analysis set.
CCV - Continuing Calibration Verification
CRA - Low level standard check - GFAA, Mercury
CRI - Low level standard check - ICP
Dil Fac - Dilution Factor - Secondary dilution analysis
DLFac - Detection Limit Factor
DU - Duplicate
EB - Extraction Blank (TCLP, SPLP, etc.)
ICAL - Initial Calibration
ICB - Initial Calibration Blank
ICV - Initial Calibration Verification
ISA - Interference Check Sample A - ICP
ISB - Interference Check Sample B - ICP
LCD - Laboratory Control Duplicate
LCS - Laboratory Control Sample
MB - Method Blank

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 03/08/2006

MD - Method Duplicate
MDL - Method Detection Limit
MQL - Method Quantitation Limit (TRRP)
MS - Matrix Spike
MSD - Matrix Spike Duplicate
ND - Not Detected
PB - Preparation Blank
PREPF - Preparation Factor
RL - Reporting Limit
RPD - Relative Percent Difference
RRF - Relative Response Factor
RT - Retention Time
SQL - Sample Quantitation Limit (TRRP)
TIC - Tentatively Identified Compound

Method References:

(1) EPA 600/4-79-020 Methods for the Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-94-111 Methods for the Determination of MEtals in Environmental Samples, Supplement I, May 1994.
(3) EPA SW846 Test Methods for Evaluating Solid Waste, Third Edition, September 1986; Update I July 1992; Update II, September 1994, Update IIA August 1993; Update IIB, January 1995; Update III, December 1996, Update IVA January 1998, Update IVB November 2000.
(4) Standard Methods for the Examination of Water and Wastewater, 16th Edition (1985), 17th Edition (1989), 18th Edition (1992), 19th Edition (1995), 20th Edition (1998).
(5) HACH Water Analysis Handbook 3rd Edition (1997).
(6) Federal Register, July 1, 1990 (40 CFR Part 136 Appendix A).
(7) Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, 2nd Edition, January 1997.
(8) ASTM Annual Book of Methods (Various Years)
(9) Diagnosis and Improvement of Saline and Alkali Soils, Agriculture Handbook No. 60, United States Department of Agriculture, 1954.

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

LABORATORY CHRONICLE

Job Number: 309000

Date: 03/08/2006

CUSTOMER: ERM Southwest, Inc.- Houston | PROJECT: UPRR-HWPW-0014419 60 | ATTN: Chris Young

Lab ID: 309000-1 Client ID: MW-11 A

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
	Data Package Validation	1	147415		01/24/2006 0000	
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM	1	146661		01/11/2006 1600	
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	146658		01/11/2006 1600	
	GC/MS Semi-Volatile Package Production	1	147303		01/23/2006 0800	
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/13/2006 1055	1.00000

Lab ID: 309000-2 Client ID: MW-11 B

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM	1	146661		01/11/2006 1600	
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	146658		01/11/2006 1600	
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/13/2006 1154	1.00000
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/16/2006 1826	4.00000

Lab ID: 309000-3 Client ID: MW-10 A

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM	1	146661		01/11/2006 1600	
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	146658		01/11/2006 1600	
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/13/2006 1223	1.00000

Lab ID: 309000-4 Client ID: MW-10 B

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM	1	146661		01/11/2006 1600	
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	146658		01/11/2006 1600	
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/13/2006 1253	1.00000

Lab ID: 309000-5 Client ID: P-10

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM	1	146661		01/11/2006 1600	
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	146658		01/11/2006 1600	
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/13/2006 1322	1.00000
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/16/2006 1856	5.00000
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/16/2006 1925	50.0000

Lab ID: 309000-6 Client ID: Dup-1

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM	1	146661		01/11/2006 1600	
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	146658		01/11/2006 1600	
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/13/2006 1351	1.00000
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/16/2006 1955	5.00000
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/16/2006 2024	50.0000

Lab ID: 309000-7 Client ID: MW-7

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM	1	146661		01/11/2006 1600	
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	146658		01/11/2006 1600	
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/13/2006 1420	1.00000

Lab ID: 309000-8 Client ID: FB-010506

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM	1	146661		01/11/2006 1600	
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	146658		01/11/2006 1600	
SW-846 8270C	Semivolatile Organics, Low Level	1	147301	146658	01/13/2006 1449	1.00000

Lab ID: 309000-9 Client ID: MW-2

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM	1	146661		01/11/2006 1600	

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

SEVERN TRENT STL

LABORATORY CHRONICLE

Job Number: 309000

Date: 03/08/2006

CUSTOMER: ERM Southwest, Inc.- Houston PROJECT: UPRR-HWPW-0014419 60 ATTN: Chris Young

Lab ID: 309000-9 Client ID: MW-2

METHOD	DESCRIPTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level
SW-846 8270C	Semivolatile Organics, Low Level

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
1	146658		01/11/2006 1600	
1	147301	146658	01/13/2006 0928	1.00000

Lab ID: 309000-10 Client ID: MW-2 (MS)

METHOD	DESCRIPTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level
SW-846 8270C	Semivolatile Organics, Low Level
SW-846 8270C	Semivolatile Organics, Low Level

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
1	146658		01/11/2006 1600	
1	146661		01/11/2006 1600	
1	147301	146658	01/13/2006 0957	1.00000
1	147301	146658	01/16/2006 1728	2.00000

Lab ID: 309000-11 Client ID: MW-2 (MSD)

METHOD	DESCRIPTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level
SW-846 8270C	Semivolatile Organics, Low Level
SW-846 8270C	Semivolatile Organics, Low Level

Date Recvd: 01/09/2006 Sample Date: 01/05/2006

RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
1	146658		01/11/2006 1600	
1	146661		01/11/2006 1600	
1	147301	146658	01/13/2006 1026	1.00000
1	147301	146658	01/16/2006 1757	2.00000

Lab ID: 309000-12 Client ID: MW-01 A

METHOD	DESCRIPTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level
SW-846 8270C	Semivolatile Organics, Low Level
SW-846 8270C	Semivolatile Organics, Low Level

Date Recvd: 01/09/2006 Sample Date: 01/06/2006

RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
1	146661		01/11/2006 1600	
1	146658		01/11/2006 1600	
1	147301	146658	01/13/2006 1518	1.00000
1	147301	146658	01/16/2006 2053	10.0000

Lab ID: 309000-13 Client ID: Dup 2

METHOD	DESCRIPTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level
SW-846 8270C	Semivolatile Organics, Low Level
SW-846 8270C	Semivolatile Organics, Low Level

Date Recvd: 01/09/2006 Sample Date: 01/06/2006

RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
1	146661		01/11/2006 1600	
1	146658		01/11/2006 1600	
1	147301	146658	01/13/2006 1547	1.00000
1	147301	146658	01/16/2006 2123	5.00000

Lab ID: 309000-14 Client ID: MW-8

METHOD	DESCRIPTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level
SW-846 8270C	Semivolatile Organics, Low Level

Date Recvd: 01/09/2006 Sample Date: 01/06/2006

RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
1	146661		01/11/2006 1600	
1	146658		01/11/2006 1600	
1	147301	146658	01/13/2006 1616	1.00000

Lab ID: 309000-15 Client ID: P-12

METHOD	DESCRIPTION
SW-846 3510C	Extraction (Sep. Funnel) SVOC - SIM
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level
SW-846 8270C	Semivolatile Organics, Low Level

Date Recvd: 01/09/2006 Sample Date: 01/06/2006

RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
1	146661		01/11/2006 1600	
1	146658		01/11/2006 1600	
1	147301	146658	01/13/2006 1645	1.00000

6310 Rothway Drive • Houston, TX 77040 • Tel: 713 690 4444 • Fax: 713 690 5646 • www.stl-inc.com

Data Usability Summary
Laboratory Analytical Data Package 309000

Houston Wood Preserving Works
Union Pacific Railroads
Houston, Texas

Data Usability Summary

Environmental Resources Management reviewed one laboratory analytical data package (309000) from Severn Trent Laboratories for the analysis of ground water samples collected on January 5-6, 2006 at the ground water monitoring wells located on the Houston Wood Preserving Works Site in Houston, Texas. Data were reviewed for conformance to the requirements of the guidance document, *Review and Reporting of COC Concentration Data* (RG-366/TRRP-13) dated December 2002.

Intended Use of Data: To provide current data on concentrations of chemicals of concern (COCs) in the ground water at the site.

The data generated were evaluated in terms of representativeness, precision, accuracy, completeness and comparability.

Analyses requested included:
SW-846 8270C – Semivolatile Organic Compounds (SVOCs) by Gas Chromatography/Mass Spectrometry (GC/MS)

Data were reviewed and validated as described in *Review and Reporting of COC Concentration Data,* (RG-366/TRRP-13) dated December 2002 and the results of the review/validation are discussed in this Data Usability Summary (DUS). The following laboratory submittals and field data were examined:

- Analytical data report and chain-of-custody(C-O-C),
- Laboratory review checklists (LRC), and
- Associated exception reports (ER).

The results of supporting quality control (QC) analyses were summarized on the LRC and ER, all of which were included in this review.

Introduction

Six monitoring well water samples were analyzed for semi-volatile compounds (SVOCs): 2-methylnaphthalene; acenaphthene; acenaphthylene; anthracene; bis(2-ethylhexyl)phthalate; dibenzofuran; fluoranthene; fluorene; naphthalene; phenanthrene; and pyrene. Four monitoring well water samples were analyzed for SVOCs: acenaphthene; acenaphthylene; anthracene; bis(2-ethylhexyl)phthalate; dibenzofuran; di-n-butyl phthalate; fluoranthene; fluorene; naphthalene; phenol; and pyrene. Two field duplicate were sampled. One field

duplicate was analyzed for 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, bis(2-ethylhexyl)phthalate, dibenzofuran, fluoranthene, fluorene, naphthalene, phenanthrene, and pyrene, while the other field duplicate was analyzed for acenaphthene, acenaphthylene, anthracene, bis(2-ethylhexyl)phthalate, dibenzofuran, di-n-butyl phthalate, fluoranthene, fluorene, naphthalene, phenol, and pyrene. One matrix spike sample and one matrix spike duplicate sample were collected and analyzed for 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, bis(2-ethylhexyl)phthalate, dibenzofuran, fluoranthene, fluorene, naphthalene, phenanthrene, and pyrene. One field blank was submitted to the laboratory, and was analyzed for 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, bis(2-ethylhexyl)phthalate, dibenzofuran, di-n-butyl phthalate, fluoranthene, fluorene, naphthalene, phenanthrene, phenol, and pyrene. Table 1 lists the sample identifications cross-referenced to laboratory identifications.

Data Review / Validation Results

Analytical Results

Water analytical results are reported in mg/L. Qualified data are included in Table 2. *Not Detected* results are reported as less than the value of the sample quantitation limit (SQL) as defined by the TRRP rule. Method detection limits (MDLs) and method quantitation limits (MQLs) were also provided as part of the laboratory data package.

Preservation and Holding Times

Samples were evaluated for agreement with the chain-of-custody. All samples were received in the appropriate containers and in good condition with the accompanying paperwork filled out properly. The two of the three coolers had a sample receipt temperature (0.8°C and 1.6°C) slightly below the acceptance criteria of 4 ± 2°C per the LRC. Based on professional judgment, sample data was likely not affected by the slightly cooler temperature; therefore, qualifiers were not applied to the data. The third cooler had a sample receipt temperature (2.3°C) within acceptance criteria of 4 ± 2°C per the LRC. The samples were preserved in the field as specified in the referenced methods. The samples were prepared and analyzed within holding times as specified in the referenced methods.

Calibrations

According to the LRC, initial calibration and continuing calibration blank (CCB) data met method requirements for pentachlorophenol and SVOC analyses, and instrument performance calibrations (GC tunes) for pentachlorophenol and SVOC analyses were satisfactory. Therefore, qualifiers were not added to the data for calibration.

Blanks

Method blank (MB 146658) was reported as detected above the MDL for Di-n-butyl Phthalate. The associated samples, 309000-002 and 309000-008, were reported as estimated detected at concentrations less than ten times the method blank concentration for Di-n-butyl Phthalate. Therefore, these samples were qualified as not-detected (U-flagged) for Di-n-butyl Phthalate.

This method blank was reported as not-detected above the MDL for the remaining SVOCs listed in the data package. The other method blank was reported as not-detected above the MDL for SVOCs.

The field blank (FB-010506) was reported as detected above the SQL for Di-n-butyl Phthalate. This sample was qualified as not-detected due to method blank contamination for Di-n-butyl Phthalate. Therefore, no qualifiers were added to the samples. The field blank was reported as not-detected above the SQL for the remaining SVOCs listed in this data package.

Internal Standard and Surrogate Recoveries

Per the LRC, chrysene-d12 and perylene-d12 internal standard areas for 309000-015 and the four times dilution of 309000-002 were above laboratory QC acceptance limits. The constituents, acenaphthene, dibenzofuran, and fluorene, were reported as detected for the four times dilution of sample 309000-002. They are not listed as corresponding analytes for the internal standards chrysene-d12 and perylene-d12. Therefore, no qualifiers were added to the data. The corresponding analytes for the internal standards chrysene-d12 and perylene-d12 are bis(2-ethylhexyl)phthalate and pyrene for sample 309000-015. Bis(2-ethylhexyl)phthalate was reported as not-detected for sample 309000-015. Therefore, no qualifier was added to the data. Pyrene was reported as detected for sample 309000-015. Therefore, this sample was qualified as estimated, detected, biased low (JL-flagged) for pyrene.

Per the LRC, perylene-d12 internal standard area for the fifty times dilution of 309000-005 was above laboratory QC acceptance limits. The constituent, naphthalene, was reported as detected for the fifty times dilution of sample 309000-005. It is not listed as a corresponding analyte for the internal standard perylene-d12. Therefore, no qualifiers were added to the data.

Per the LRC, naphthalene-d8 internal standard areas for 309000-007, 309000-008, and 309000-014 were below laboratory QC acceptance limits. The corresponding analytes for the internal standard naphthalene-d8 are 2-methylnaphthalene and naphthalene for sample 309000-007. 2-methylnaphthalene was reported as not-detected for sample 309000-007. Therefore, this sample was qualified as not-detected (UJ-flagged) for 2-methylnaphthalene. Naphthalene was reported as estimated, detected for sample 309000-007. Therefore, this sample was qualified as estimated, detected, biased high (JH-flagged) for naphthalene. The corresponding analytes for the internal standard naphthalene-d8 are 2-methylnaphthalene and naphthalene for sample 309000-008. 2-methylnaphthalene and naphthalene were reported as not-detected for sample 309000-008. Therefore, this sample was qualified as not-detected (UJ-flagged) for 2-methylnaphthalene and naphthalene. The corresponding analytes for the internal standard naphthalene-d8 are 2-methylnaphthalene and naphthalene for sample 309000-014. 2-methylnaphthalene and naphthalene were reported as not-detected for sample 309000-014. Therefore, this sample was qualified as not-detected (UJ-flagged) for 2-methylnaphthalene and naphthalene.

Per the LRC, 1,4-dichlorobenzene-d4, acenaphthene-d10, phenanthrene-d10, chrysene-d12, and perylene-d12 internal standard areas for 309000-013 were above laboratory QC acceptance limits. The corresponding analytes for the internal standards, 1,4-dichlorobenzene-d4, acenaphthene-d10, phenanthrene-d10, chrysene-d12, and perylene-d12, are acenaphthylene,

anthracene, bis(2-ethylhexyl)phthalate, dibenzofuran, fluoranthene, phenanthrene, and pyrene for sample 309000-013. Bis(2-ethylhexyl)phthalate was reported as not-detected for sample 309000-013. Therefore, no qualifiers were added to the data. Acenaphthylene, anthracene, dibenzofuran, fluoranthene, phenanthrene, and pyrene were reported as detected for sample 309000-013. Therefore, this sample was qualified as estimated, detected, biased low (JL-flagged) for acenaphthylene, anthracene, dibenzofuran, fluoranthene, phenanthrene, and pyrene.

2,4,6-Tribromophenol surrogate recoveries for samples, P-10, Dup-1, and MW-2(MS), were reported outside laboratory QC criteria due to solution dilutions. 2-Fluorobiphenyl surrogate recoveries for samples, P-10 and Dup-1, were reported outside laboratory QC criteria due to solution dilutions. 2-Fluorophenol surrogate recovery for sample, Dup-1, was reported outside laboratory QC criteria due to solution dilutions. Nitrobenzene-d5 surrogate recoveries for samples, P-10 and Dup-1, were reported outside laboratory QC criteria due to solution dilutions. Phenol-d6 surrogate recoveries for samples, MW-11B, P-10, Dup-1, and MW-01A, were reported outside laboratory QC criteria due to solution dilutions. No qualifiers were added to the samples.

All other surrogate recoveries for SVOC analyses in this laboratory data package were reported within laboratory QC criteria.

Laboratory Control Samples

SVOC laboratory control sample (LCS) recoveries met the laboratory QC objectives.

Matrix Spike/Matrix Spike Duplicates

Recovery for matrix spike, 309000-010, in batch 147301 was below TRRP-13 QC acceptance criteria for dibenzofuran, fluorene, and 4-nitrophenol analysis. Associated samples were not analyzed for 4-nitrophenol. Therefore, no qualifiers were added to the data for this constituent. MS amounts were not four times the original sample concentrations for dibenzofuran and fluorene. This may not represent the matrix effect. Therefore, based on professional judgment, no qualifiers were added to the data for these constituents.

Relative percent difference (RPD) for matrix spike duplicate, 309000-011, in batch 147301 was oustide TRRP-13 QC acceptance criteria for 4-nitrophenol analysis. Associated samples were not analyzed for 4-nitrophenol. Therefore, no qualifiers were added to the data for this constituent.

Laboratory Precision

There were no laboratory duplicate samples analyzed, therefore a precision comparison was not performed.

Post Digestion Spike and Serial Dilution Test

The post digestion spike and serial dilution test are not required for SVOC analyses.

Field Precision

Two field duplicates were analyzed in association with this laboratory package (P-10/Dup-1 and MW-01A/Dup 2). The RPD for acenaphthylene for the sample/duplicate set, P-10/Dup-1, was outside TRRP-13 QC acceptance criteria. The sample and duplicate concentrations were reported as less than two times the MQL. Therefore, no qualifiers were added to the sample/duplicate set for field precision.

The RPD for 2-methylnaphthalene for the sample/duplicate set, MW-01A/Dup 2, was outside TRRP-13 QC acceptance criteria. The sample and duplicate concentrations were reported as less than five times, but greater than two times the MQL. Therefore, these samples were qualified as estimated, detected (J-flagged) for 2-methylnaphthalene. The RPD for naphthalene for the sample/duplicate set, MW-01A/Dup 2, was outside TRRP-13 QC acceptance criteria. The sample and duplicate concentrations were reported as less than two times the MQL. Therefore, no qualifiers were added to the sample/duplicate set for field precision.
Sample/duplicate precision analysis is presented in Table 3.

Field Procedures

Samples were collected in accordance with the Sampling and Analysis Plan.

Summary

The data quality objectives and characteristics (i.e., representativeness, precision, accuracy, completeness, and comparability) for the project were met. The water analytical data are useable for the purpose of providing data on current concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, bis(2-ethylhexyl)phthalate, dibenzofuran, di-n-butyl phthalate, fluoranthene, fluorene, naphthalene, phenanthrene, phenol, and pyrene for the ground water wells on the Houston Wood Preserving Works site. The reader should note that samples were qualified during this review as shown in Table 2.

TABLE 1

Cross-Reference Field Sample Identifications and Laboratory Identifications
Laboratory Analytical Data Package 309000

Houston Wood Preserving Works
Houston, Texas

Field Identification	Laboratory Identification	Sample Description
MW-11A	309000-001	
MW-11B	309000-002	
MW-10A	309000-003	
MW-10B	309000-004	
P-10	309000-005	
Dup-1	309000-006	Field Duplicate
MW-7	309000-007	
FB-010506	309000-008	Field Blank
MW-2	309000-009	
MW-2(MS)	309000-010	Matrix Spike
MW-2(MSD)	309000-011	Matrix Spike Duplicate
MW-01A	309000-012	
Dup 2	309000-013	Field Duplicate
MW-8	309000-014	
P-12	309000-015	

TABLE 2

Qualified Analytical Data
Laboratory Analytical Data Package 309000

Houston Wood Preserving Works
Houston, Texas

Field Identification	Laboratory Identification	Analyte	Qualification	Reason for Qualification
MW-11B	309000-002	Di-n-butyl Phthalate	U	Constituent detected in method blank
FB-010506	309000-008	Di-n-butyl Phthalate	U	Constituent detected in method blank
P-12	309000-015	Pyrene	JL	Internal standard area above QC acceptance criteria
MW-7	309000-007	2-methylnaphthalene	UJ	Internal standard area below QC acceptance criteria
MW-7	309000-007	Naphthalene	JH	Internal standard area below QC acceptance criteria
FB-010506	309000-008	2-methylnaphthalene	UJ	Internal standard area below QC acceptance criteria
FB-010506	309000-008	Naphthalene	UJ	Internal standard area below QC acceptance criteria
MW-8	309000-014	2-methylnaphthalene	UJ	Internal standard area below QC acceptance criteria
MW-8	309000-014	Naphthalene	UJ	Internal standard area below QC acceptance criteria
Dup 2	309000-013	Acenaphthylene	JL	Internal standard area above QC acceptance criteria
Dup 2	309000-013	Anthracene	JL	Internal standard area above QC acceptance criteria
Dup 2	309000-013	Dibenzofuran	JL	Internal standard area above QC acceptance criteria
Dup 2	309000-013	Fluoranthene	JL	Internal standard area above QC acceptance criteria
Dup 2	309000-013	Phenanthrene	JL	Internal standard area above QC acceptance criteria
Dup 2	309000-013	Pyrene	JL	Internal standard area above QC acceptance criteria

NOTES:

U = Not detected
UJ = Not detected, estimated
JL = Estimated detected, low-biased
JH = Estimated detected, high-biased

TABLE 3

Field Precision
Laboratory Analytical Data Package 309000

Houston Wood Preserving Works
Houston, Texas

Field Identification	Analyte	Sample Result	Duplicate Result	RPD	Qualified
P-10/Dup-1	Acenaphthene	0.102	0.0971	4.92	A
	Acenaphthylene	0.00006	0.00037	-144.19	J
	Anthracene	0.00570	0.00492	14.69	A
	Dibenzofuran	0.0325	0.0289	11.73	A
	Fluoranthene	0.00273	0.00255	6.82	A
	Fluorene	0.0480	0.0490	-2.06	A
	Naphthalene	0.433	0.439	-1.38	A
	Pyrene	0.00108	0.000993	8.39	A
MW-01A/Dup 2	2-Methylnaphthalene	0.00169	0.00306	-57.68	J
	Acenaphthene	0.0937	0.0917	2.16	A
	Acenaphthylene	0.00387	0.00350	10.04	A
	Anthracene	0.00210	0.00199	5.38	A
	Dibenzofuran	0.0143	0.0195	-30.77	A
	Fluoranthene	0.00557	0.00550	1.26	A
	Fluorene	0.0221	0.0275	-21.77	A
	Naphthalene	0.000519	0.000798	-42.37	J
	Phenanthrene	0.000650	0.000660	-1.53	A
	Pyrene	0.00250	0.00253	-1.19	A

NOTES:

Results reported as mg/L
RPD = ((SR-DR)*200)/(SR+DR)
A = Acceptable data
J = Estimated data due to inability to meet QC criteria

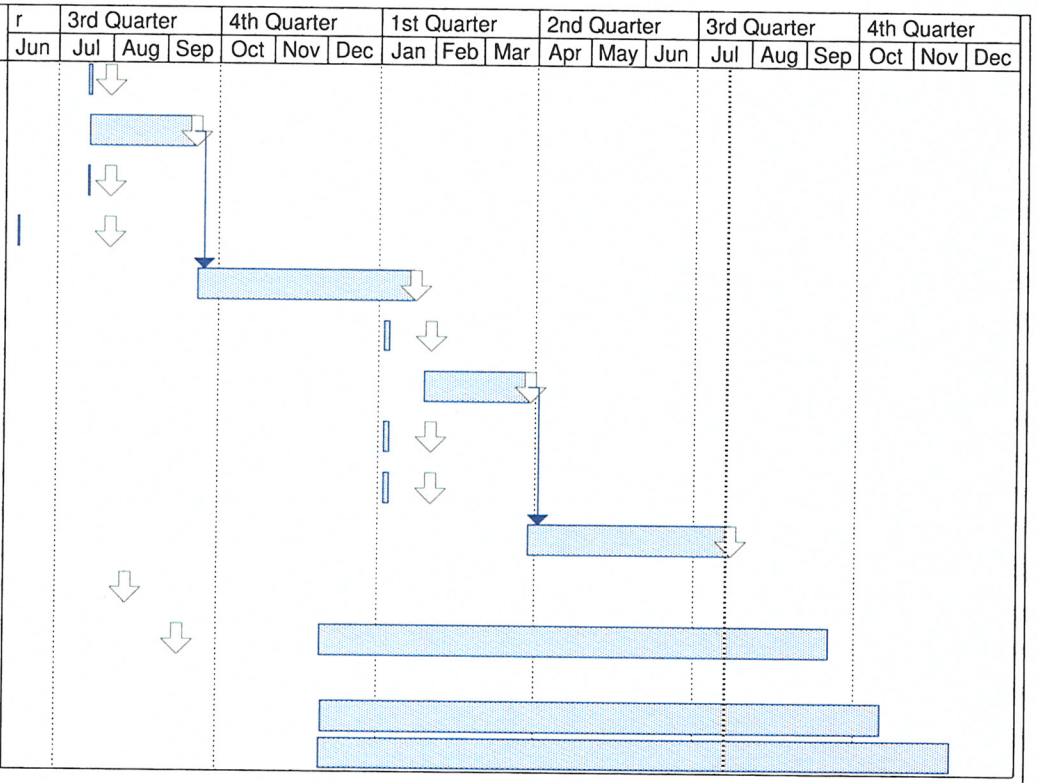
Updated Compliance Schedule

Appendix D

July 19, 2006
Project No. 0014419

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

ID	Task Name	Start	Finish
1	Corrective Action Monitoring: Ground Water Monitoring Program (2H05): Section VI.C.	Mon 7/18/05	Tue 7/19/05
2	Ground Water Monitoring Program Data Evaluation (2H05): Section VI.C.	Tue 7/19/05	Sat 9/17/05
3	Water Level Measurements (2H05) Section: VI.C.4.a	Mon 7/18/05	Mon 7/18/05
4	Well Inspections (2H05) Section: VI.C.4.e	Wed 6/8/05	Wed 6/8/05
5	Ground Water Monitoring Program (2H05) Reporting: Section VII.C.2	Mon 9/19/05	Fri 1/20/06
6	Corrective Action Monitoring: Ground Water Monitoring Program (1H06): Section VI.C.	Wed 1/4/06	Fri 1/6/06
7	Ground Water Monitoring Program Data Evaluation Section (1H06): Section VI.C.	Fri 1/27/06	Tue 3/28/06
8	Water Level Measurements (1H06): Section VI.C.4.a	Wed 1/4/06	Fri 1/6/06
9	Well Inspections (1H06): Section VI.C.4.e	Wed 1/4/06	Fri 1/6/06
10	Ground Water Monitoring Program (1H06) Reporting: Section VII.C.2	Tue 3/28/06	Fri 7/21/06
11	Compliance Activity Schedule to TCEQ: Section X.A	Tue 8/9/05	Tue 8/9/05
12	Results of ground water delineation downgradient of POC Wells to TCEQ: Section X.A.	Tue 11/29/05	Fri 9/15/06
13	Affected Property Assessment	Wed 11/30/05	Sun 10/15/06
14	Addendum to APAR to TCEQ	Tue 11/29/05	Fri 11/24/06



Project:HWPW Compliance Schedule
Date: Wed 7/19/06

Task	Rolled Up Task	Project Summary	
Split	Rolled Up Split	External Milestone	
Progress	Rolled Up Milestone	Deadline	
Milestone	Rolled Up Progress		
Summary	External Tasks		

G:/2006/0014419/8729AppD.mpp