



July 14, 2023

Project No. 31406585.016

Ms. Maureen Hatfield

Texas Commission on Environmental Quality
MC-127
VCP-CA Section, Team 1, Remediation Division
P.O. Box 13087
Austin, Texas 78711-3087

**Re: MONTHLY STATUS UPDATE – ENGLEWOOD INTERMODAL YARD – NAPL COLLECTION
SYSTEM/CONCRETE CAP REPAIRS
UNION PACIFIC RAILROAD HOUSTON WOOD PRESERVING WORKS FACILITY
4910 LIBERTY ROAD FACILITY, HOUSTON, TEXAS
POST-CLOSURE CARE PERMIT NO. HW-50343; INDUSTRIAL SWR NO. 31547**

Dear Ms. Hatfield:

WSP USA Inc. (WSP), on behalf of Union Pacific Railroad Company (UPRR), is pleased to provide this monthly status update for June 2023 for inspections conducted at the Englewood Intermodal Yard concrete cap area within the UPRR Houston Wood Preserving Works Facility (the Site). Monthly status updates were requested by the Texas Commission on Environmental Quality (TCEQ) in a letter dated March 20, 2018.

A non-aqueous phase liquid (NAPL) Collection System was installed in the Englewood Intermodal Yard in January 2019 to address the tar-like substance seeps within parking stalls B100 to B109 (for container trailers). The following is a summary of the observations from the weekly inspections of the NAPL Collection System and Englewood Intermodal Yard concrete pavement near the collection system for June 2023 (photographs from the weekly inspections are provided in Attachment A):

- Water levels in NAPL Collection System Sump 1 (B099/B100 stalls), Sump 2 (B103/B104 stalls), and Sump 3 (B107/B108 stalls) were measured at 3 inches, 38 inches, and 37 inches from top of the manhole, respectively, during the inspection on June 7, 2023 (Photo Nos. 5-7). Throughout the June inspections, the water level in Sump 1 remained within 3-4 inches from the top of the manhole (Photo Nos. 5, 21, 33, and 49). In Sump 2, the water level ranged from 36-38 inches from the top of the manhole throughout the June 14 and 21, 2023 (Photo Nos. 22 and 34) inspections, and remained 37 inches from the top of the manhole in Sump 3 (Photo Nos. 23 and 35). During the June 28, 2023 inspection, the water levels in Sumps 2 and 3 increased to 31 inches below to the top of the manhole (Photo Nos. 50 and 51, respectively). On every weekly inspection made in June 2023, the water in Sump 1 was observed to be brown in color (Photo Nos. 5, 21, and 33), except on June 28, 2023 when it was observed to be dark brown (Photo No. 49). During the June 7, 14, and 21, 2023 inspections, the color of the water in Sumps 2 and 3 was observed to be light brown (Photo Nos. 6, 7, 22, 23, 34, 35). During the June 28, 2023 inspection, the water was observed to be light brown in Sump 2 (Photo No. 50) and

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dark brown in Sump 3 (Photo No. 51). Sheen was observed in all Sumps during the June 7, 2023 inspection (Photo Nos. 5-7), in Sumps 2 and 3 during the June 14, 2023 inspection (Photo Nos. 22 and 23), in Sump 3 during the June 21, 2023 inspection (Photo No. 35), and in Sumps 1 and 3 during the June 28, 2023 inspection (Photo Nos. 49 and 51). No odors were reported during the June inspections.

- The NAPL Collection System sumps (Sumps 1, 2, and 3) have continued to be checked weekly for DNAPL using an interface probe. No measurable NAPL has been detected within the sumps using the interface probe through June 2023. Even though no measurable DNAPL was noted, a hoe has continued to be used to further evaluate the presence of and recover DNAPL, if present, from the bottom of each of the sumps during the weekly inspections. No DNAPL was encountered or recovered from the sumps during June 2023 weekly inspections or the pump down event. A notation on the presence of NAPL in each sump, tabulation of depth and thickness of NAPL if detected, and a tabulation of total mass of NAPL recovered from each sump is provided on the enclosed Table 1. Any NAPL recovered from the sumps is placed in a drum for disposal. The drum is staged at the Container Storage Area (CSA). An accumulation of NAPL on the bottom of the inflow protector in Sump 1 was observed during the inspection on September 14, 2022. The material was removed, and the inflow protector was monitoring during subsequent inspections for additional NAPL accumulation. No additional accumulation was observed through June 28, 2023.
- A small tar-like material seep was observed on the southern edge of the NAPL Collection System in cracks in the cement along the joint of Stall B107 during the July 6, 2022 weekly inspection. A small amount of tar-like material was recovered at this location on June 7, 14, 21 and 28, 2023 (Photo Nos. 10, 19, 43, and 44).
- For areas outside the NAPL Collection System, a small amount of tar-like material was observed on the concrete or asphalt surface at the following locations during the June 2023 weekly inspections:

Seep Observations Outside the NAPL Collection System Area	
Stall Number	Observation Date(s)
A011	June 7 th , June 14 th , June 21 st , and June 28 th (Photo Nos. 1, 15, 29 and 45)
A022	June 7 th , June 14 th , June 21 st , and June 28 th (Photo Nos. 3, 17, and 31, 47)
B042	June 14 th , June 21 st , and June 28 th (Photo Nos. 16, 39, and 55)
B056	June 7 th , June 14 th , June 21 st and June 28 th (Photo Nos. 4, 27, 28, and 53)
B057	June 7 th , June 14 th , June 21 st and June 28 th (Photo No. 38, and 59)
B096	June 14 th , June 21 st , and June 28 th (Photo No. 24, 42, and 58)
Track 802	June 7 th , June 14 th , June 21 st and June 28 th (Photo No. 11, 18, 41, and 57)
RD-14	June 7 th , June 14 th , June 21 st and June 28 th (Photo No. 12, 20, 37, and 54)

- As detailed in the July 2022 Monthly Status Update, a tar-like material seep was observed next to Track 802 that is located approximately 280 feet northwest of the NAPL Collection System. The tar-like material seep is located along on the northern side of the track at the edge of the railroad ballast (Photo No. 11). During the September 28, 2022 weekly inspection, an additional tar-like material seep was observed within the concrete road area (RD-14) about 45 feet north of Track 802 and east of the existing Track 802 seep location (Photo No. 14). A very small amount of tar-like seep material was recovered at the Track 802 and RD-14 locations during all four of the inspections in June 2023.
- Tar-like material observed during the weekly inspection events was removed and recovered using a hand tool to scrape up the material. The number of tar-like material seeps observed, and total volume of material recovered during the month of June was similar to the May inspections. Less than 0.3 gallons of tar-like material was recovered for the month from the seep locations. The material that was recovered was placed in a drum staged at the CSA for disposal.
- After the pressure washing event on June 6, 2023, brown staining/residue and a small amount of seep water returned along cracks in the paved areas throughout the A and B rows by the June 14, 2023 inspection. The heaviest staining was observed in stalls A065-A0670 (Photo No. 60). WSP coordinated with UPRR remediation contractor OMI on June 15, 2023 to pressure wash the staining and seepage. The brown staining was again observed in stalls A065-A070 during the June 21 (Photo No. 32) and 28 (Photo No. 48), 2023 inspections. UPRR remediation contractor OMI pressure washed the stained areas in stalls A063-A070 on June 23 (Photo No. 40) and 30 (Photo No. 56), 2023. Wash water from the pressure wash events was recovered and is staged in a tote onsite pending transportation and disposal. UPRR will continue to have a remediation contractor pressure wash and collect the water in the areas where the brown staining and seeps are observed, as needed.
- WSP, on behalf of UPRR, submitted to the TCEQ the Englewood IM Yard Test Pit Evaluation Report dated June 2, 2021 summarizing the findings from the test pits installed in July 2020, including weekly inspections since the installation. As discussed in the Test Pit Report, the test pit inspections were to continue through the warmer months (through September 2021). UPRR will prepare a Test Pit Evaluation Report Addendum summarizing the test pit inspections from June through November 2021. During inspections in June and July 2021 the concrete patches covering test pits in stalls A010, A021, B013, B057, B096, and B108 were observed to be damaged. UPRR contractor US Ecology removed the damaged test pit concrete on October 22, 2021 and completed installation of new rebar and concrete on October 25, 2021. The new concrete patches continue to be monitored during the weekly inspections.
- During the inspection on September 28, 2022, a small amount of tar like material was observed in stall B096 adjacent to the test pit patch for the first time since the test pit installation. A very small amount of tar-like material was recovered from the B096 historical seep location during the inspection on June 14, 2023 (Photo No. 24). Through June 28, 2023, no NAPL seeps have been observed at the six other test pit locations (stalls A010, A021, A098, B013, B057, and B108). The seep observed in stall B057 (Photo No. 38 and 59) during the inspection on June 7, 2023, June 14, 2023, June 21, 2023 and June 28, 2023 is located in cracks in the asphalt pavement and not at the test pit location.
- A follow-up video camera survey of the stormwater sewer lines in the central area of the Englewood IM Yard was conducted on August 26, 2021 to evaluate the stormwater line near the test pit locations. Details of the follow-up video survey will be provided in the Test Pit Evaluation Report Addendum.
- The TCEQ issued a comment letter dated January 26, 2022 titled "*Comments on Interim Groundwater Monitoring Report (July 2020), dated April 30, 2021 Englewood Intermodal Yard (EIY) Test Pit Evaluation Report, dated June 2, 2021, Corrective Action Monitoring Report, 2021 First Semi-Annual Event, dated July 9, 2021*". In the comment letter, the TCEQ requested UPRR prepare an Interim Measures Work Plan (Work Plan) to address the NAPL seeps in the Englewood Intermodal Yard. The TCEQ requested that the Work Plan

include a schedule and plan for implementation of additional interim measures to permanently address the NAPL seeps in the Englewood Intermodal Yard. UPRR submitted the requested Work Plan dated May 17, 2023 to the TCEQ on May 24, 2023. The TCEQ issued a comment letter dated July 5, 2023 on the Work Plan. UPRR is currently preparing responses to the revised Work Plan that will be submitted to the TCEQ by the requested due date.

Weekly site inspections of the NAPL Collection System and Englewood Intermodal Yard concrete pavement near the collection system will continue to be conducted.

If you have any questions or need additional information, please feel free to call us at (512) 671-3434 or Mr. Kevin Peterburs of UPRR at (414) 267-4164.

Sincerely,

WSP USA Inc.



Christopher Elofson, P.G.
Consultant, Geologist



Eric C. Matzner, P.G.
Director, Hydrogeologist

CC: Mr. Kevin Peterburs, UPRR – Milwaukee, WI
Ms. Alma Jefferson, Waste Section Manager, TCEQ Region 12, Houston

Attachment Table 1 – NAPL Measurements – NAPL Collection System
Attachment A – Weekly Inspection Photolog

TABLE 1
NAPL Measurements - NAPL Collection System - Englewood Intermodal Yard
UPRR Houston, tx - Wood Preserving Works

Measured Date	Sump 1 (B099/B100) Freeboard (in)	Sump 2 (B103/B104) Freeboard (in)	Sump 3 (B107/B108) Freeboard (in)	Depth to DNAPL (in)	Comments
8/14/2019	2.5	28	29	Not measurable	
8/21/2019	0	27.5	26.5	Not measurable	
8/28/2019	44.5	47.9	45	Not measurable	Water from sumps pumped out
9/4/2019	19	42	41.5	Not measurable	
9/13/2019	0	39.5	38	Not measurable	
9/20/2019	0	3	2.5	Not measurable	
9/25/2019	0	42	42.5	Not measurable	Water from sumps pumped out
10/2/2019	2.5	42.5	42	Not measurable	Sheen visible in B107/B108 sump, less than 0.1 gal of DNAPL recovered
10/9/2019	3	42	41.5	Not measurable	Sheen visible in B107/B108 sump, less than 0.1 gal of DNAPL recovered
10/16/2019	0	39.5	39	Not measurable	Less than 0.1 gal of DNAPL recovered from B107/B108 Sump
10/24/2019	3	35	25	Not measurable	Less than 0.1 gal of DNAPL recovered from B107/B108 Sump
10/29/2019	0	24	23	Not measurable	Water from sumps pumped out
10/30/2019	0	40	39	Not measurable	Slight sheen visible in B107/B108 sump
11/6/2019	9	39	38.5	Not measurable	
11/13/2019	7	30	29	Not measurable	Less than 0.1 gal of DNAPL recovered from B107/B108 Sump
11/19/2019	4	26	25.5	Not measurable	
11/27/2019	0	25	23	Not measurable	
12/3/2019	2	25.5	25	Not measurable	Less than 0.1 gal of DNAPL recovered from B107/B108 Sump
12/11/2019	1.5	17	16.54	Not measurable	Less than 0.1 gal of DNAPL recovered from B107/B108 Sump
12/17/2019	5	19.5	17.5	Not measurable	
12/23/2019	10	21	20.5	Not measurable	
1/7/2020	9	13	12.5	Not measurable	
1/8/2020	9	13	12.5	Not measurable	Water from sumps pumped out
1/17/2020	0	32	31.5	Not measurable	
1/21/2020	2.5	26.5	26	Not measurable	
1/28/2020	0	0	0	Not measurable	
2/4/2020	2	11	10.5	Not measurable	
2/12/2020	0	0	0	Not measurable	
2/18/2020	1.5	11.5	10.25	Not measurable	Water from sumps pumped out on 2/20/2020
2/27/2020	2	42	36	Not measurable	
3/6/2020	1	36	36	Not measurable	
3/11/2020	2	36	35.5	Not measurable	
3/18/2020	0	35.5	35	Not measurable	
3/27/2020	0	29	28	Not measurable	
4/3/2020	1.5	29	28.5	Not measurable	
4/8/2020	0	23	22	Not measurable	
4/15/2020	0.5	23	22	Not measurable	
4/21/2020	0	21	21	Not measurable	
4/28/2020	0	23	22	Not measurable	
5/4/2020	-	-	-	Not Measured	Measurements were not taken; the inspector was unable to open the sumps
5/12/2020	0	20	19	Not measurable	
5/19/2020	0	15.75	14.25	Not measurable	Sump 1 pumped down (May 22nd)
5/27/2020	0	14	13	Not measurable	
6/1/2020	0	7	5	Not measurable	
6/10/2020	0	10	9	Not measurable	
6/17/2020	1	12	11	Not measurable	
6/25/2020	0	0	0	Not measurable	
6/30/2020	0	0	0	Not measured	
7/1/2020	48	46	47	Not measurable	Sumps 1, 2, & 3 pumped down
7/8/2020	34	24.5	24	Not measurable	Less than 0.1 gal of DNAPL recovered from B107/B108 Sump
7/15/2020	32	29.5	29	Not measurable	Sheen visible in B99/B100 sump & B107/B108 sump, less than 0.1 gal of DNAPL recovered B107/B108 sump
7/23/2020	0	23	22.5	Not measured	Less than 0.1 gal of DNAPL recovered from B107/B108 Sump
7/31/2020	0	11	10	Not measurable	
8/5/2020	0	7	5	Not measurable	
8/13/2020	1	11	10	Not measurable	
8/19/2020	0	7	6	Not measurable	
8/26/2020	0	10	9	Not measurable	
9/2/2020	43	37	38	Not measurable	Sumps 1, 2, & 3 pumped down (September 1); Sheen visible in B99/B100 sump & B107/B108 sump
9/9/2020	28	37	36	Not measurable	Sheen visible in B107/B108 sump
9/15/2020	1	35	33	Not measurable	
9/23/2020	0	0	0	Not measurable	

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Measured Date	Sump 1 (B099/B100) Freeboard (in)	Sump 2 (B103/B104) Freeboard (in)	Sump 3 (B107/B108) Freeboard (in)	Depth to DNAPL (in)	Comments
9/30/2020	1	10	9	Not measurable	
10/8/2020	4	12	11.5	Not measurable	
10/15/2020	0	11	10.5	Not measurable	Less than 0.1 gal of DNAPL recovered B107/B108 sump
10/21/2020	1	10.5	9.25	Not measurable	
10/28/2020	0	11	10	Not measurable	
11/4/2020	9	13	12	Not measurable	
11/11/2020	0.5	12	11	Not measurable	
11/18/2020	3.5	13	12	Not measurable	
11/24/2020	7	14	13.5	Not measurable	
11/30/2020	2	7	6	Not measurable	
12/10/2020	5	10.5	10	Not measurable	
12/18/2020	4	10	9	Not measurable	
12/23/2020	1	9	7.5	Not measurable	
12/31/2020	0	4	3.5	Not measurable	
1/6/2021	4	10.5	9	Not measurable	
1/15/2021	43	39	37.5	Not measurable	Sumps 1, 2, & 3 pumped down
1/22/2021	0	34	33	Not measurable	Sheen visible in B107/B108 sump
1/29/2021	2	31	30	Not measurable	Sheen visible in B107/B108 sump
2/4/2021	4	30	29.5	Not measurable	Sheen visible in B099/B100 sump
2/10/2021	0	27	25.5	Not measurable	
2/17/2021	0	0	0	Not measurable	
2/24/2021	2	10	9.5	Not measurable	
3/2/2021	0	0	0	Not measurable	
3/10/2021	0	10	9.75	Not measurable	
3/17/2021	0	2	1	Not measurable	
3/24/2021	0	3.5	2	Not measurable	
3/31/2021	0	6.5	7	Not measurable	
4/8/2021	0	7.5	7	Not measurable	
4/14/2021	0	6.5	6	Not measurable	Less than 0.1 gal of DNAPL recovered B107/B108 sump; Sheen visible in B103/104 and B107/B108 sumps
4/21/2021	0.5	9	8.5	Not measurable	
4/28/2021	0	8.5	8	Not measurable	
5/5/2021	0	7.5	7	Not measurable	
5/12/2021	0	8	7.5	Not measurable	
5/19/2021	0	0	0	Not measurable	
5/26/2021	0	2	0.5	Not measurable	
5/27/2021	41	32	26	Not measurable	Sumps 1,2, & 3 pumped down
6/2/2021	0	40	38	Not measurable	Sheen visible in B107/108 sump
6/9/2021	0	30	28.5	Not measurable	
6/16/2021	0	24	25	Not measurable	
6/23/2021	0	12	13	Not measurable	
6/30/2021	0	3	1	Not measurable	
7/7/2021	0	0	0	Not measurable	
7/14/2021	0	0	0	Not measurable	Sumps 1,2, & 3 pumped down (July 15)
7/21/2021	0	39	37	Not measurable	
7/29/2021	0	37	35.5	Not measurable	
8/4/2021	0	36	34	Not measurable	Sheen visible in B103/104 and B107/B108 sumps
8/11/2021	0	33	32	Not Measured	Depth to DNAPL measurements were not taken; the interface probe was not functioning properly
8/18/2021	0	25	23	Not measurable	
8/25/2021	0	20	22	Not measurable	
9/1/2021	0	20	17	Not measurable	
9/8/2021	3	14	11	Not measurable	
9/15/2021	0	3	4	Not measurable	Sumps 1,2, & 3 pumped down (September 17)
9/22/2021	31.5	46	46	Not measurable	Sheen visible in B107/B108 sump
9/29/2021	0	29	30.75	Not measurable	Sheen visible in B103/104 and B107/B108 sumps
10/7/2021	6	18	17.5	Not measurable	
10/13/2021	3.6	10.56	9.72	Not measurable	Sheen visible in B103/104 and B107/B108 sumps; brown discoloration and slight odor noted B099/B100 sump
10/20/2021	0	13.94	12.6	Not measurable	Sumps 1,2, & 3 pumped down (October 21)
10/27/2021	0	22	21	Not measurable	Sheen visible in B099/B100 sump
11/3/2021	10	20	21	Not measurable	
11/10/2021	12	16	15	Not measurable	
11/17/2021	8	16	15	Not measurable	
11/24/2021	7	14	13	Not measurable	
12/1/2021	7	15	14	Not measurable	
12/8/2021	6	12.5	12	Not measurable	
12/15/2021	7	15	15	Not measurable	
12/22/2021	-	-	-	Not Measured	Partial site inspection conducted 12/22/21; Sump measurements were not taken
12/29/2021	0	11.5	11	Not measurable	
1/5/2022	8.75	13.5	12.25	Not measurable	

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UPRR Houston, tx - Wood Preserving Works

Measured Date	Sump 1 (B099/B100) Freeboard (in)	Sump 2 (B103/B104) Freeboard (in)	Sump 3 (B107/B108) Freeboard (in)	Depth to DNAPL (in)	Comments
1/12/2022	6	12	12	Not measurable	
1/19/2022	13.5	17	16	Not measurable	Sheen visible in B099/B100 sump
1/27/2022	3	9	9	Not measurable	
2/2/2022	-	-	-	Not Measured	Measurements were not taken; the inspector was unable to open the sumps
2/9/2022	9	15	15	Not measurable	
2/16/2022	8.5	17	16	Not measurable	
2/23/2022	5.5	14	13.5	Not measurable	
3/2/2022	5.5	15	14	Not measurable	
3/9/2022	4.5	7	6	Not measurable	
3/16/2022	48	36	45	Not measurable	Sumps 1,2, & 3 pumped down during inspection; less than 0.5 gal of DNAPL recovered B107/B108 sump
3/23/2022	6	29	28	Not measurable	
3/30/2022	5.5	28	28	Not measurable	
4/6/2022	3.5	19	18	Not measurable	
4/13/2022	4.5	18	15	Not measurable	Sheen visible in B099/B100 sump
4/20/2022	5	18	18	Not measurable	Sheen visible in B099/B100 sump
4/27/2022	4.5	12	8.5	Not measurable	
5/4/2022	48	42	45	Not measurable	Sumps 1,2, & 3 pumped down during inspection; Sheen visible in B099/B100 sump
5/11/2022	16	44.5	44	Not measurable	Sheen visible in B099/B100, B103/104, and B107/B108 sumps
5/18/2022	6.5	45	45	Not measurable	
5/25/2022	0	25	24	Not measurable	
6/1/2022	5.5	24	24	Not measurable	
6/8/2022	5	22	22	Not measurable	Sheen visible in B099/B100 and B103/104 sumps
6/15/2022	5	25	24	Not measurable	
6/22/2022	4.5	24	21	Not measurable	
6/29/2022	6	21	21	Not measurable	
7/6/2022	5.5	13	13	Not measurable	
7/13/2022	5	15	14	Not measurable	Sheen visible in B099/B100 sump
7/20/2022	51.5	38	43.5	Not measurable	Sumps 1,2, & 3 pumped down during inspection; less than 0.1 gal of DNAPL recovered B099/B100 sump
7/27/2022	4	42	40	Not measurable	
8/3/2022	5	39	39	Not measurable	
8/10/2022	5.5	38	38	Not measurable	Sheen visible in B107/B108 sump
8/17/2022	5.5	25.5	25	Not measurable	
8/24/2022	0	0.5	0	Not measurable	Inspector unable to open B099/B100 and B107/B108 sumps as there was standing water on top of the sumps due to ongoing rain event
8/31/2022	52	52	48	Not measurable	Sumps 1,2, & 3 pumped down during inspection; sheen visible in B103/B104 sump
9/7/2022	3	37	37	Not measurable	
9/14/2022	1	34	31	Not measurable	Sheen visible in B099/B100 sump
9/21/2022	2.2	31.5	27.5	Not measurable	Sheen visible in B107/B108 sump
9/28/2022	3	30	31	Not measurable	Sheen visible in B099/B100 and B107/B108 sumps
10/5/2022	8	33	33	Not measurable	Sheen visible in B099/B100 and B107/B108 sumps
10/12/2022	7	32	32	Not measurable	Sheen visible in B099/B100 and B107/B108 sumps
10/19/2022	48	48	48	Not measurable	Sumps 1,2, & 3 pumped down during inspection; less than 0.1 gal of DNAPL recovered from B107/108 sump; small amount of DNAPL visible but not recoverable in B099/B100 sump; sheen visible in B099/B100 and B103/B104 sumps on recharge water after pumpdown
10/26/2022	6	46	45	Not measurable	Sheen visible in B107/B108 sump
11/2/2022	4	19	19	Not measurable	
11/9/2022	6	14	13	Not measurable	
11/16/2022	8	14	12	Not measurable	
11/22/2022	0	0	0	Not measurable	
11/30/2022	3	10	9	Not measurable	Very slight sheen visible in Sumps 1, 2, and 3; less than 0.2 gal of DNAPL recovered from B107/108 sump
12/7/2022	4	13.5	13	Not measurable	
12/14/2022	0	0	0	Not measurable	Replaced dipper tool with hoe for NAPL recovery from sumps. Less than 0.4 gal of DNAPL recovered from B099/B100 sump; approximately 0.1 gal of DNAPL recovered from B107/B108 sump
12/21/2022	4	8	7	Not measurable	
12/28/2022	16	14	14	Not measurable	
1/4/2023	3.5	7.5	6	Not measurable	
1/11/2023	12	12	3	Not measurable	
1/18/2023	3	13	13	Not measurable	
1/25/2023	3	6	5	Not measurable	

TABLE 1
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UPRR Houston, tx - Wood Preserving Works

Measured Date	Sump 1 (B099/B100) Freeboard (in)	Sump 2 (B103/B104) Freeboard (in)	Sump 3 (B107/B108) Freeboard (in)	Depth to DNAPL (in)	Comments
2/1/2023	<1	1	<1	Not measurable	
2/8/2023	5	13	12	Not measurable	
2/15/2023	<1	2	2.5	Not measurable	Sumps B099/B100, B103/B104, and B107/B108 pumped down during inspection
2/22/2023	32	42	43	Not measurable	Sheen visible in B099/B100, B103/B104, and B107/B108 sumps; water in B099/B100 noted as brown color with high turbidity
3/1/2023	9	41	40	Not measurable	Sheen visible in B099/B100, B103/B104, and B107/B108 sumps, water color in sumps noted as brown
3/8/2023	5	42	41	Not measurable	B099/B100 & B103/B104 light brown color
3/15/2023	4	42	41	Not measurable	B099/B100 and B013/B104 brown color; B107/B108 very light brown color
3/22/2023	8	26.5	25.5	Not measurable	B099/B100 light brown color
3/29/2023	3	24	25	Not measurable	B099/B100 light brown color
4/5/2023	2.5	25	25	Not measurable	B099/B100 light brown color
4/12/2023	4	12	14	Not measurable	All three sumps pumped down during inspection, B099/B100 brown color
4/19/2023	5	42	42	Not measurable	Sheen visible in B107/B108 sump
4/26/2023	4	31.5	31.5	Not measurable	Sheen visible in B107/B108 sump
5/3/2023	3	18	17.5	Not measurable	
5/10/2023	0	1.5	0	Not measurable	Sheen visible in B107/B108 sump
5/17/2023	0	2	0	Not measurable	Sheen visible in B107/B108 sump
5/24/2023	2	14	13	Not measurable	Pumpdown and boom swap.
5/31/2023	28	50	49	Not measurable	B099/B100 water color brown. B103/B104 and B107/B108 water color light brown.
6/7/2023	3	38	37	Not measurable	Sheen visible in all Sumps. B099/B0100 water color brown and, light brown on both B103/B104 and B107/B108.
6/14/2023	4	38	37	Not measurable	Sheen Visible in B099/B100 & B107/B108. water color brown on B099/B100 & light brown in all other sumps.
6/21/2023	3	36	37	Not measurable	Sheen Visible in B107/B108. water color brown on B099/B100 & light brown in all other sumps.
6/28/2023	3	31	31	Not measurable	Sheen Visible in B099/B100 & B107/B108. Water color dark brown on B099/B100 & B107/B108, light brown in B103/B104.




Note:




Freeboard in sumps is measured as depth to water from top rim of sump, measured in inches









ATTACHMENT A




Weekly Inspection Photolog




		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 1	Inspection Date: 6/7/2023		
Description: Stall A011 some tar-like material observed at historical seep location along asphalt crack, material was removed. Water from recent rain event observed along asphalt cracks, looking east. Lat: 29.785392, Long: -95.318655			
Photo No. 2	Inspection Date: 6/7/2023		
Description: Stall B100/B101, some tar-like material observed near historical seep location along asphalt crack, material removed. (Sump B103/B104 in background of photo), pavement wet from recent rain event, looking west. Lat: 29.7842528 Long: - 95.3206250			




		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 3	Inspection Date: 6/7/2023		
Description: Stall A022, a small amount of tar-like material observed at the seep location along the edge, pavement wet from recent rain event, looking south east Lat: 29.785381 Long: - 95.318619			
Photo No. 4	Inspection Date: 6/7/2023		
Description: Slot B056, a small amount of tar-like material seeping at asphalt crack, material was removed. Looking North Lat: 29.7847472 Long: -95.3195417			




		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 5	Inspection Date: 6/7/2023		
Description: Sump 1 (B099/B100), 3 inches of freeboard in sump, sheen observed, no odor noted, no new NAPL accumulation on inflow protector, color noted as brown/turbid. Lat: 29.7844000 Long: - 95.3205861			
Photo No. 6	Inspection Date: 6/7/2023		
Description: Sump 2 (B103/B104), 38 inches of freeboard, sheen observed, no odor noted, color noted as light brown. Lat: 29.7842861 Long: - 95.3208611			



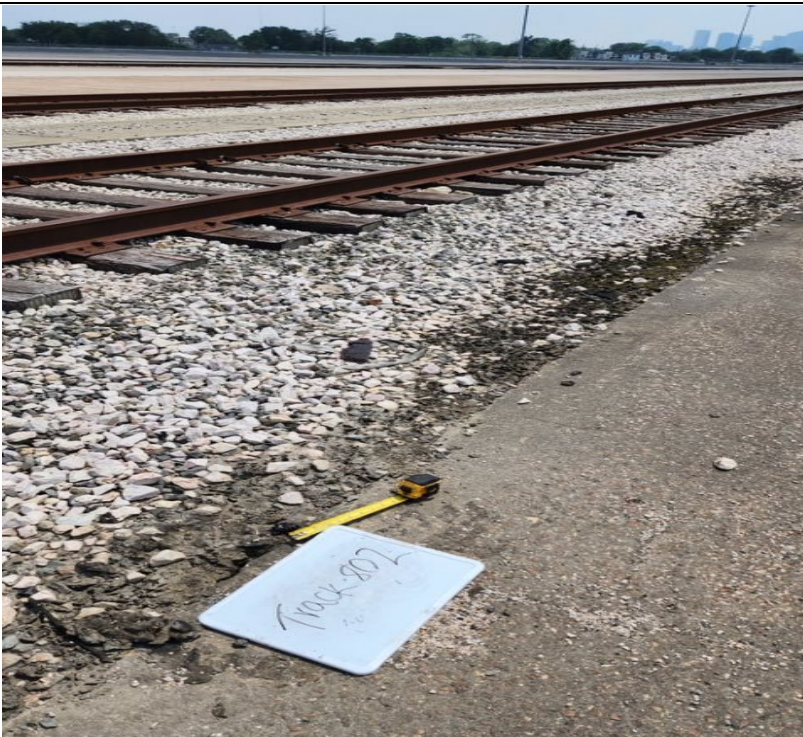
		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 7	Inspection Date: 6/7/2023		
Description: Sump 3 (B107/B108), 37 inches of freeboard in sump, sheen observed, no odor noted, color noted as light brown. Lat: 29.784172 Long: -95.320998			
Photo No. 8	Inspection Date: 6/7/2023		
Description: Stall B102, small amount of tar-like material observed within concrete joint, residual staining on concrete surface noted. Lat: 29.7842203 Long: -95.3208267			




		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 9	Inspection Date: 6/7/2023		
Description: Stall B105, view of NAPL collection system (Sump 3 in background of photo), very small tar-like material observed at seep location, material removed, looking southwest. Lat: 29.784236 Long: -95.320939			
Photo No. 10	Inspection Date: 6/7/2023		
Description: Stall B107, view of NAPL collection system (Sump 3 in background of photo), looking north, some tar-like material observed at seep location on concrete joint along the southern edge of the excavated area, material removed. Lat: 29.784156 Long: -95.320953			




		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 11	Inspection Date: 6/7/2023		
Description: North side of Track 802, some tar-like material observed at seep location near the edge of the ballast, pavement wet from recent rain event. Material removed. Lat: 29.784947 Long: - 95.321214			
Photo No. 12	Inspection Date: 6/7/2023		
Description: RD-14 Seep location observed within the concrete road area (RD-14) north of Track 802 (east of existing Track 802 seep location), very small amount of tar-like material observed along a concrete joint, material was removed. Lat: 29.785064 Long: -95.321219			




		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 13	Inspection Date: 6/7/2023		
Description: Slot B057, very small amount of tar-like material seeping at historical seep location in asphalt cracks, no seep observed where test pit conducted (July 2020), material was removed. Lat: 29.7847472 Long: -95.3195417			
Photo No. 14	Inspection Date: 6/14/2023		
Description: Slot B057, very small amount of tar-like material seeping at historical seep location in asphalt cracks, no seep observed where test pit conducted (July 2020), material was removed. Lat: 29.7847472 Long: -95.3195417			




		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 15	Inspection Date: 6/14/2023		
Description: Stall A011, some tar-like material observed at historical seep location, looking southeast, material was removed.			
Lat: 29.785392 Long: - 95.318655			
Photo No. 16	Inspection Date: 6/14/2023		
Description: Stall B042, some tar-like material observed at seep location on concrete joint along the southern edge, material removed. looking east.			
Lat: 29.784926 Long: -95.319124			




		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 17	Inspection Date: 6/14/2023		
Description: Stall A022, some tar-like material observed at historical seep location, material was removed. looking southeast.			
Lat: 29.785381 Long: - 95.318619			
Photo No. 18	Inspection Date: 6/14/2023		
Description: North side of Track 802, some tar-like material observed at seep location near the edge of the ballast, material removed, looking southwest.			
Lat: 29.784947 Long: -95.321214			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 19	Inspection Date: 6/14/2023		
Description: Stalls B107, view of NAPL collection system (Sump 3 in background of photo), some new tar-like material observed and removed at seep location on concrete joint along the southern edge of the excavated area, looking northwest. Lat: 29.784156 Long: -95.320953			
Photo No. 20	Inspection Date: 6/14/2023		
Description: RD-14 Seep location observed within the concrete road area (RD-14) north of Track 802 (east of existing Track 802 seep location), very small amount of tar-like material observed along a concrete joint, material was removed. Lat: 29.785064 Long: -95.321219			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 21	Inspection Date: 6/14/2023	<div> <p>Description: Sump 1 (B099/B100), 4 inches of freeboard in sump, water ponding at sump due to recent rainfall event, sheen observed, no odor noted, no new NAPL accumulation on inflow protector, watercolor noted as dark brown.</p> <p>Lat: 29.7844000 Long: - 95.3205861</p> </div> 	
Photo No. 22	Inspection Date: 6/14/2023	<div> <p>Description: Sump 2 (B103/B104), 38 inches of freeboard in sump. No sheen or odor noted, color noted as light brown.</p> <p>Lat: 29.7842861 Long: - 95.3208611</p> </div> 	

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 23	Inspection Date: 6/14/2023		
Description: Sump 3 (B107/B108), 37 inches of freeboard in sump, sheen observed, no odor noted, watercolor noted as light brown.			
Lat: 29.784172 Long: - 95.320998			
Photo No. 24	Inspection Date: 6/14/2023		
Description: Slot B096, very small amount of tar-like material seeps observed where test pit conducted (July 2020), material removed, looking north.			
Lat: 29.7842528 Long: - 95.3206250			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 25	Inspection Date: 6/14/2023		
Description: Stall B100, some tar-like material observed near historical seep location along asphalt crack, material removed (Sump B099/B100 in background of photo). Lat: 29.7844000 Long: - 95.3205861			
Photo No. 26	Inspection Date: 6/14/2023		
Description: Stall B102, small amount of tarlike material observed within concrete joint. residual staining on concrete surface noted. material was removed. looking north. Lat: 29.7842203 Long: - 95.320827			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 27	Inspection Date: 6/14/2023		
Description: Stall B056, a small amount of tar-like material seeping at asphalt crack, material was removed.			
Lat: 29.7847472 Long: -95.3195417			
Photo No. 28	Inspection Date: 6/21/2023		
Description: Stall B056, a small amount of tar-like material seeping at asphalt crack, material was removed.			
Lat: 29.7847472 Long: -95.3195417			



PHOTOGRAPHIC LOG

Client Name:

Union Pacific Railroad

Site Location:

Englewood Intermodal Yard, Houston, Texas

Project No.

31406585.016

Photo No.

29

Inspection Date:

6/21/2023

Description:

Stall A011 some tar-like material observed at historical seep location along asphalt crack, material was removed.

Lat: 29.785392,
Long: -95.318655



Photo No.

30

Inspection Date:




6/21/2023




Description:




Stall B100, some tar-like material observed near historical seep location along asphalt crack, material removed.




Lat: 29.7842528
Long: - 95.3206250









		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 31	Inspection Date: 6/21/2023		
Description: Stall A022, a small amount of tar-like material observed at the seep location along the edge, material was removed, looking southeast. Lat: 29.785381 Long: - 95.318619			
Photo No. 32	Inspection Date: 6/21/2023		
Description: Stall A065, staining observed along asphalt cracks of Row A and B stalls, looking east. UPRR remediation contractor OMI removed staining and seepage by power washing the area on 6/23/23. Lat: 29.784858 Long: -95.319733			




		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 33	Inspection Date: 6/21/2023		
Description: Sump 1 (B099/B100), 3 inches of freeboard in sump, water ponding at sump due to recent rainfall event, no sheen or odor noted, no new NAPL accumulation on inflow protector, watercolor noted as dark brown. Lat: 29.7844000 Long: - 95.3205861			
Photo No. 34	Inspection Date: 6/21/2023		
Description: Sump 2 (B103/B104), 36 inches of freeboard in sump. No sheen or odor noted, color noted as dark brown. Lat: 29.7842861 Long: - 95.3208611			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 35	Inspection Date: 6/21/2023		
Description: Sump 3 (B107/B108), 37 inches of freeboard in sump, sheen observed, no odor noted, watercolor noted as light brown. Lat: 29.784172 Long: - 95.320998			
Photo No. 36	Inspection Date: 6/21/2023		
Description: Stall B102, small amount of tarlike material observed within concrete joint. residual staining on concrete surface noted. material was removed. Lat: 29.7842203 Long: - 95.320827			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 37	Inspection Date: 6/21/2023		
Description: RD-14 Seep location observed within the concrete road area (RD-14) north of Track 802 (east of existing Track 802 seep location), very small amount of tar-like material observed along a concrete joint, material was removed. Lat: 29.785064 Long: - 95.321219			
Photo No. 38	Inspection Date: 6/21/2023		
Description: Slot B057, very small amount of tar-like material seeping at historical seep location in asphalt cracks, no seep observed where test pit conducted (July 2020), material was removed. Lat: 29.7847472 Long: - 95.3195417			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 39	Inspection Date: 6/21/2023	<div> <div> Description: Slot B042, small amount of tar-like material seeping at joint. material was removed. </div> <div> Lat: 29.784926 Long: - 95.319124 </div> </div> 	
Photo No. 40	Inspection Date: 6/23/2023	<div> <div> Description: UPRR remediation contractor OMI cleaning the brown staining. </div> <div> Lat: 29.784855 Long: - 95.319730 </div> </div> 	

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 41	Inspection Date: 6/21/2023	<div>  </div>	
Description: North side of Track 802, some tar-like material observed at seep location near the edge of the ballast, material removed.			
Lat: 29.784947 Long: - 95.321214			
Photo No. 42	Inspection Date: 6/21/2023	<div>  </div>	
Description: Slot B096, very small amount of tar-like material seeps observed where test pit conducted (July 2020), material removed, brown staining observed.			
Lat: 29.7842528 Long: -95.3206250			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 43	Inspection Date: 6/21/2023	<div>  </div>	
Description: Stall B107, view of NAPL collection system (Sump 3 in background of photo), some new tar-like material observed and removed at seep location on concrete joint along the southern edge of the excavated area. Lat: 29.784156 Long: -95.320953			
Photo No. 44	Inspection Date: 6/28/2023	<div>  </div>	
Description: Stall B107, view of NAPL collection system (Sump 3 in background of photo), some new tar-like material observed and removed at seep location on concrete joint along the southern edge of the excavated area, looking northwest. Lat: 29.784156 Long: -95.320953			



PHOTOGRAPHIC LOG

Client Name:

Union Pacific Railroad

Site Location:

Englewood Intermodal Yard, Houston, Texas

Project No.

31406585.016

Photo No.

45

Inspection Date:

6/28/2023

Description:

Stall A011 some tar-like material observed at historical seep location along asphalt crack, material was removed.

Lat: 29.785392,
Long: -95.318655



Photo No.

46

Inspection Date:




6/28/2023

Description:

Stall B100, some tar-like material observed near historical seep location along asphalt crack, material removed.

Lat: 29.7842528
Long: - 95.3206250



		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	
		Project No. 31406585.016	
Photo No. 47	Inspection Date: 6/28/2023		
Description: Stall A022, a small amount of tar-like material observed at the seep location along the edge, material was removed.			
Lat: 29.785381 Long: - 95.318619			
Photo No. 48	Inspection Date: 6/28/2023		
Description: Stall A065, staining observed along asphalt cracks of Row A and B stalls, looking east. UPRR remediation contractor OMI removed staining and seepage by power washing the area on 6/30/23.			
Lat: 29.784858 Long: -95.319733			



PHOTOGRAPHIC LOG

Client Name:

Union Pacific Railroad

Site Location:

Englewood Intermodal Yard, Houston, Texas

Project No.

31406585.016

Photo No.

49

Inspection Date:

6/28/2023

Description:

Sump 1 (B099/B100), 3 inches of freeboard in sump, water ponding at sump due to recent rainfall event, no sheen or odor noted, no new NAPL accumulation on inflow protector, watercolor noted as dark brown.

Lat: 29.7844000

Long: - 95.3205861



Photo No.

50

Inspection Date:

6/28/2023

Description:

Sump 2 (B103/B104), 31 inches of freeboard in sump. No sheen or odor noted, color noted as light brown.

Lat: 29.7842861

Long: - 95.3208611





PHOTOGRAPHIC LOG

Client Name:

Union Pacific Railroad

Site Location:

Englewood Intermodal Yard, Houston, Texas

Project No.

31406585.016

Photo No.

51

Inspection Date:

6/28/2023

Description:

Sump 3 (B107/B108), 31 inches of freeboard in sump, sheen observed, no odor noted, watercolor noted as clear.

Lat: 29.784172

Long: - 95.320998



Photo No.

52

Inspection Date:

6/28/2023



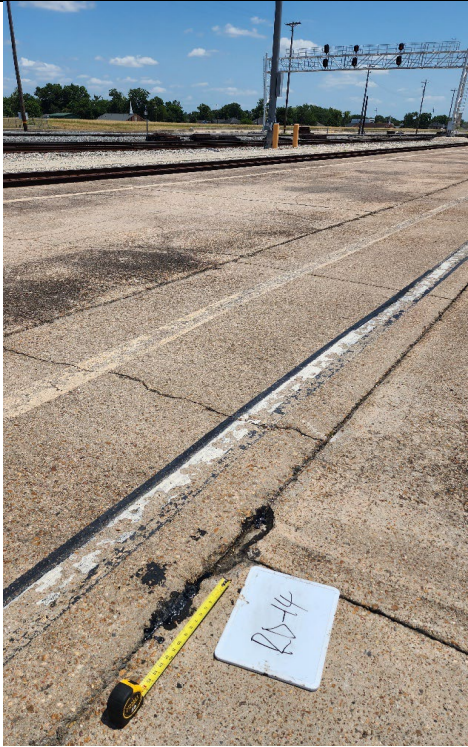
Description:




Stall B102, small amount of tarlike material observed within concrete joint. residual staining on concrete surface noted. material was removed.




Lat: 29.7842203



Long: - 95.320827



		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 53	Inspection Date: 6/28/2023		
Description: Slot B056, a small amount of tar-like material seeping at asphalt crack, material was removed. Looking North Lat: 29.7847472 Long: -95.3195417			
Photo No. 54	Inspection Date: 6/21/2023		
Description: RD-14 Seep location observed within the concrete road area (RD-14) north of Track 802 (east of existing Track 802 seep location), very small amount of tar-like material observed along a concrete joint, looking northeast, material was removed. Lat: 29.785064 Long: - 95.321219			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 55	Inspection Date: 6/28/2023	<div>  </div>	
Description: Slot B042, small amount of tar-like material seeping at joint. material was removed.			
Lat: 29.784926 Long: - 95.319124			
Photo No. 56	Inspection Date: 8/30/2023	<div>  </div>	
Description: UPRR remediation contractor OMI cleaning the brown staining.			
Lat: 29.784855 Long: - 95.319730			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 57	Inspection Date: 6/28/2023		
Description: North side of Track 802, some tar-like material observed at seep location near the edge of the ballast, material removed.			
Lat: 29.784947 Long: - 95.321214			
Photo No. 58	Inspection Date: 6/28/2023		
Description: Slot B096, very small amount of tar-like material seeps observed where test pit conducted (July 2020), material removed.			
Lat: 29.7842528 Long: -95.3206250			

		PHOTOGRAPHIC LOG	
Client Name: Union Pacific Railroad		Site Location: Englewood Intermodal Yard, Houston, Texas	Project No. 31406585.016
Photo No. 59	Inspection Date: 6/28/2023	<div> <div> Description: Slot B057, very small amount of tar-like material seeping at historical seep location in asphalt cracks, no seep observed where test pit conducted (July 2020), material was removed. </div> <div> Lat: 29.7847472 Long: - 95.3195417 </div> </div> 	
Photo No. 60	Inspection Date: 6/14/2023	<div> <div> Description: Stalls A065-A070, staining observed along asphalt cracks of Row A and B stalls, looking west. UPRR remediation contractor OMI removed staining and seepage by power washing the area on 6/15/23. </div> <div> Lat: 29.784858 Long: -95.319733 </div> </div> 