



April 13, 2023

Project No. 19119232

**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), formerly Golder Associates Inc., on behalf of Union Pacific Railroad Company (UPRR), is pleased to provide this monthly status update for March 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 March 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 9 inches, 41 inches, and 40 inches from the tops of the manholes, respectively, during the inspection on March 1, 2023 (Photo Nos. 6-8). The water level in Sump 1 fluctuated throughout the month, showing an overall increase to 3 inches from the top of the sump by the March 29, 2023 inspection (Photo No. 42). The water levels in Sumps 2 and 3 remained within one inch of the March 1, 2023 measurements through March 15, 2023. By the March 22, 2023 inspection, water levels in Sumps 2 and 3 had respectively increased to 26.5 and 25.5 inches from the top of the sumps and remained near that level through the inspection on March 29, 2023 (Photo Nos. 33-35). Starting with the inspection on February 15, 2023, a clear bailer has been used to collect water from each sump to observe the color of the water. Observations of non-clear water are noted in Table 1. On March 1, 2023 the water was observed to be brown in all three sumps. On March 8, 2023, the water in the Sumps 1 and 2 was observed as being light brown (Photo Nos. 16-

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17). On March 15, 2023, the water in Sumps 1 and 2 was observed to be brown and the water in sump 3 was observed to be very light brown in appearance. On March 22, 2023 and March 29, 2023, the water in Sump 1 was noted as light brown. Sheen was observed in all three sumps on March 1, 2023 (Photo Nos. 6-8), but not observed during the other weekly inspections in March. No odors were reported during the March 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 March 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 March 2023 during the weekly inspections. 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 March 29, 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, no new tar-like material was observed at this seep location in March 2023.
- 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. 5). 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. 30). A very small amount of tar-like seep material was recovered at the RD-14 location during the inspections on March 1, 2023, March 15, 2023 and March 29, 2023. No new tar-like material was observed at the Track 802 seep location during March 2023.
- 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 March 2023 weekly inspections:

Seep Observations Outside the NAPL Collection System Area	
Stall Number	Observation Date(s)
A011	March 1 <sup>st</sup> , March 8 <sup>th</sup> , March 15 <sup>th</sup> , & March 29 <sup>th</sup> (Photo Nos. 1, 11, 31, & 39)
A022	March 8 <sup>th</sup> , March 15 <sup>th</sup> (Photo Nos. 12 & 29)
B056	March 8 <sup>th</sup> (Photo No. 15)

Seep Observations Outside the NAPL Collection System Area	
Stall Number	Observation Date(s)
B096	March 8 <sup>th</sup> (Photo No. 13)
B101	March 8 <sup>th</sup> , March 15 <sup>th</sup> , & March 29 <sup>th</sup> (Photo Nos. 23 & 41)
B102	March 8 <sup>th</sup> (Photo No. 14)
RD-14	March 1 <sup>st</sup> , March 15 <sup>th</sup> , & March 29 <sup>th</sup> (Photo No. 30 & 46)

- 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 during the month of March increased compared to February inspections. Less than 0.2 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.
- During the inspection on March 1, 2023, light brown staining, similar to previous years, was observed along cracks in the paved areas throughout A and B row stalls with heavier staining noted in stalls A060-A065 (Photo Nos. 9 & 10). UPRR remediation contractor arrived onsite on March 3, 2023 and minimal staining was visible. On March 8, 2023 brown staining/residue was observed in the A and B row stalls with the heaviest staining occurring in stalls A058-A062 (Photo No. 19). UPRR remediation contractor arrived onsite on March 8, 2023 to pressure wash and vacuum the affected area, residual staining was noted after cleaning (Photo No. 20). By the March 15, 2023 inspection, brown staining and residue had returned again with heaviest staining present in stalls A060-A070 (Photo No. 27). UPRR remediation contractor OMI arrived onsite on March 15, 2023 to pressure wash and vacuum the affected area, residual staining was present after cleaning (Photo No. 28). Wash water from clean up events was placed into a tote onsite for disposal. By the March 22, 2023 inspection, no new staining was observed but some residual staining was noted in the same areas (Photo No. 36). 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 March 15, 2023 (Photo No. 22). Through March 2023, no NAPL seeps have been observed at the six other test pit locations (stalls A010, A021, A098, B013, B057, and B108).

- 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 is in the process of preparing the requested Work Plan.

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.**



Sarah Balke, G.I.T  
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

**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	
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	

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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
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	
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	

**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
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	
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

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.**  
19119232

**Photo No.**  
**1**

**Inspection Date:**  
03/01/2023

**Description:**

Stall A011 small amount of tar-like material observed at historical seep location along concrete joint adjacent to July 2020 test pit, material was removed.

Lat: 29.785392,  
Long: -95.318655



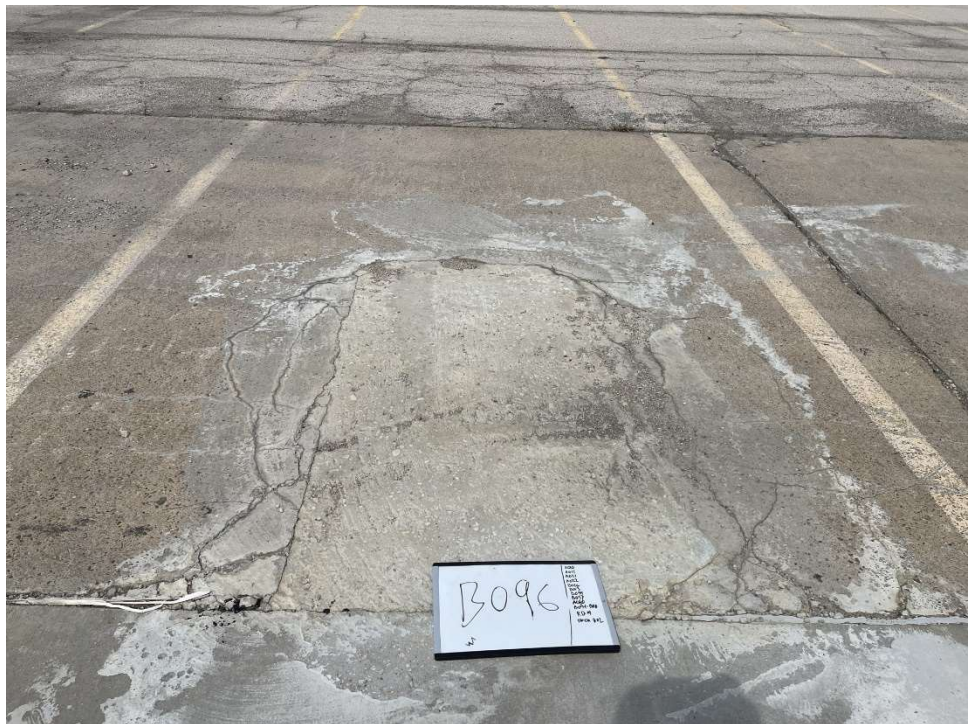
**Photo No.**  
**2**

**Inspection Date:**  
03/01/2023

**Description:**

Stall B096, no new tar-like material observed at historical seep location adjacent to July 2020 test pit, looking northwest.

Lat: 29.7842528  
Long: - 95.3206250







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

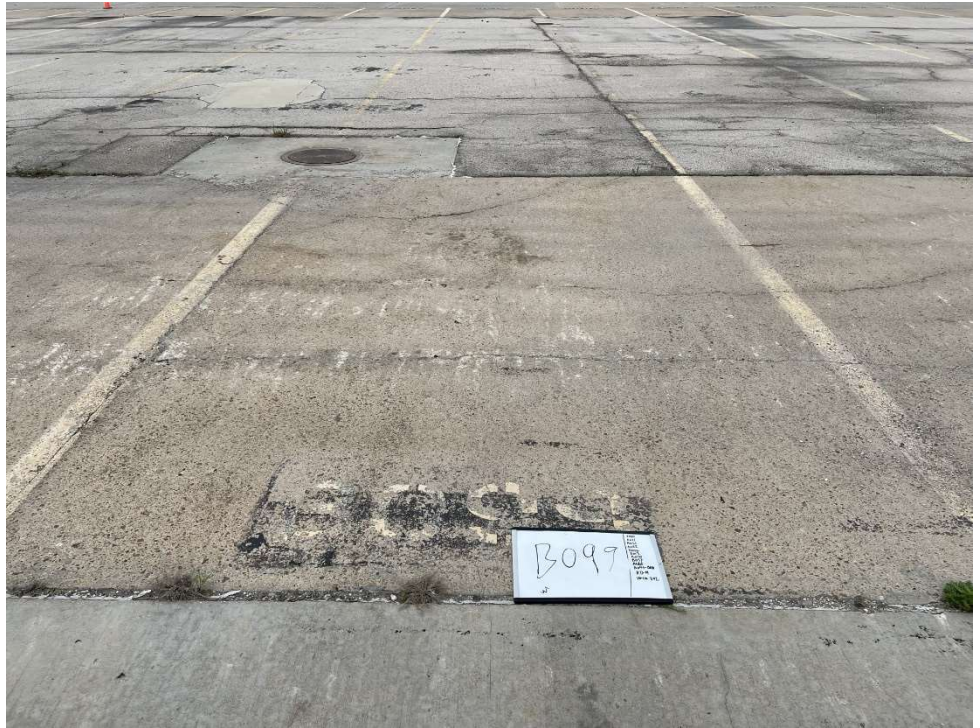
**Photo No.**  
**3**

**Inspection Date:**  
03/01/2023

**Description:**

Stalls B099-B100, view of NAPL collection system (Sump 1 in background of photo), looking northwest.

Lat: 29.784275  
Long: - 95.320813



**Photo No.**  
**4**

**Inspection Date:**  
03/01/2023

**Description:**

Stalls B107 view of NAPL collection system (Sump 3 in background of photo), no new tar-like material observed 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.**  
19119232

**Photo No.**  
**5**

**Inspection Date:**  
03/01/2023

**Description:**

North side of Track 802, no new tar-like material observed at seep location near the edge of the ballast, looking southeast.

Lat: 29.784947  
Long: -95.321214



**Photo No.**  
**6**

**Inspection Date:**  
03/01/2023

**Description:**

Sump 1 (B099/B100), 9 inches of freeboard in sump, sheen observed, no odor noted, no new NAPL accumulation on inflow protector.

Lat: 29.7844000  
Long: - 95.3205861







# PHOTOGRAPHIC LOG

**Client Name:**  
Union Pacific Railroad

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
7

**Inspection Date:**  
03/01/2023

**Description:**

Sump 2 (B103/B104), 41 inches of freeboard. sheen observed, no odor noted.

Lat: 29.7842861  
Long: - 95.3208611



a

**Photo No.**  
8

**Inspection Date:**  
03/01/2023

**Description:**

Sump 3 (B107/B108), 40 inches of freeboard in sump, sheen observed, no odor noted.

Lat: 29.784172  
Long: -95.320998







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**9**

**Inspection Date:**  
03/01/2023

**Description:**

Stall A061, Brown residue and staining observed within A and B row stalls, before cleaning, looking south.

Lat: 29.784858  
Long: -95.319733



**Photo No.**  
**10**

**Inspection Date:**  
03/01/2023

**Description:**

Eastern end of A and B row stalls, brown staining observed before cleaning, looking east.

Lat: 29.785269  
Long: -95.318681







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**11**

**Inspection Date:**  
03/08/2023

**Description:**

Stall A011, very small amount of tar-like material observed at historical seep location, looking southeast. Material was removed.

Lat: 29.785392,  
Long: -95.318655



**Photo No.**  
**12**

**Inspection Date:**  
03/08/2023

**Description:**

Stall A022, very small amount of tar-like material observed at the seep location along the edge tar-like material seeps observed, looking northwest. Material was removed.

Lat: 29.785381  
Long: -95.318619







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**13**

**Inspection Date:**  
03/08/2023

**Description:**

Stall B096, very small amount of tar-like material observed near historical seep location along concrete joint adjacent to July 2020 test pit, material was removed.

Lat: 29.7842528  
Long: - 95.3206250



**Photo No.**  
**14**

**Inspection Date:**  
03/08/2023

**Description:**

Stall B102, small amount of tar-like material observed within concrete joint, residual staining on concrete surface noted, looking northwest.

Lat: 29.7842203  
Long: - 95.320827







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**15**

**Inspection Date:**  
03/08/2023

**Description:**

Stall B056, very small amount of tar-like material observed at historical seep location, looking northeast. Material was removed.

Lat: 29.78417  
Long: - 95.32091



**Photo No.**  
**16**

**Inspection Date:**  
03/08/2023

**Description:**

Sump 1 (B099/B100), 5 inches of freeboard in sump, no sheen or odor noted, no new NAPL accumulation on inflow protector. bailer used to observe watercolor, watercolor noted as light brown.

Lat: 29.7844000  
Long: - 95.3205861





**Client Name:**  
**Union Pacific Railroad****Site Location:**  
Englewood Intermodal Yard, Houston, Texas**Project No.**  
19119232**Photo No.**  
**17****Inspection Date:**  
03/08/2023**Description:**

Sump 2 (B103/B104), 42 inches of freeboard. No sheen or odor noted. Bailer used to observe color of the water, which was noted as light brown.

Lat: 29.7842861  
Long: - 95.3208611

**Photo No.**  
**18****Inspection Date:**  
03/08/2023**Description:**

Sump 3 (B107/B108) with 41 inches of freeboard, no sheen or odor noted. bailer used to observe color of the water, which was noted as clear.

Lat: 29.784172  
Long: -95.320998







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**19**

**Inspection Date:**  
03/08/2023

**Description:**

Slots A058-A062, Brown residual and staining material observed within asphalt cracks, before cleaning. looking west.

Lat: 29.785392,  
Long: -95.318655



**Photo No.**  
**20**

**Inspection Date:**  
03/08/2023

**Description:**

UPRR remediation contractor OMI onsite to power wash the stained areas, residue removed, residual staining noted after cleaning. Wash water vacuumed up and containerized in a tote onsite.

Lat: 29.785392,  
Long: -95.318655







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**21**

**Inspection Date:**  
03/15/2023

**Description:**

Stall A011, very small amount of tar-like material observed at historical seep location. Material was removed.

Lat: 29.785392,  
Long: -95.318655



**Photo No.**  
**22**

**Inspection Date:**  
03/15/2023

**Description:**

Stall B096, no new tar-like material observed near historical seep location along concrete joint adjacent to July 2020 test pit, looking northwest.

Lat: 29.7842528  
Long: - 95.3206250







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

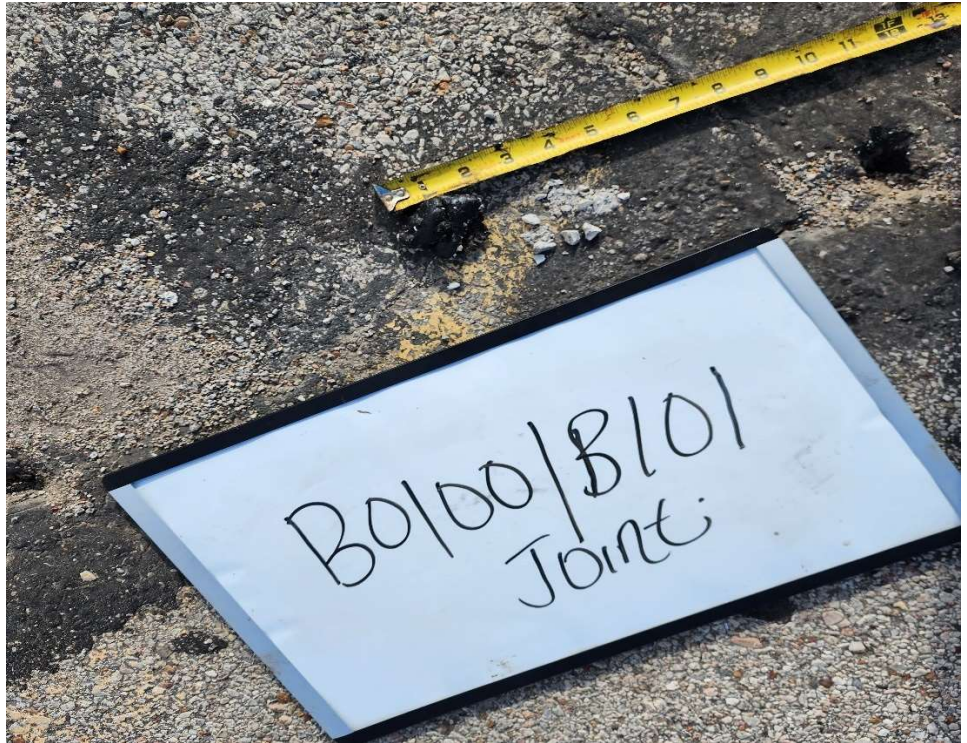
**Photo No.**  
**23**

**Inspection Date:**  
03/15/2023

**Description:**

Stall B101 joint, very small amount of tar-like material observed at historical seep location along asphalt crack. Material was removed.

Lat: 29.7842203  
Long: - 95.320827



**Photo No.**  
**24**

**Inspection Date:**  
03/15/2023

**Description:**

Sump 1 (B099/B100), 4 inches of freeboard in sump, no sheen or odor noted, no new NAPL accumulation on the inflow protector, bailer used to observe color of the water, which was noted as brown.

Lat: 29.7844000  
Long: - 95.3205861





<b>Client Name:</b> <b>Union Pacific Railroad</b>	<b>Site Location:</b> Englewood Intermodal Yard, Houston, Texas	<b>Project No.</b> 19119232
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<b>Photo No.</b> <b>25</b>	<b>Inspection Date:</b> 03/15/2023
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**Description:**

Sump 2 (B103/B104), 42 inches of freeboard in sump, no sheen or odor noted, bailer used to observe color of the water, which was noted as light brown.

Lat: 29.7842861  
Long: - 95.3208611



<b>Photo No.</b> <b>26</b>	<b>Inspection Date:</b> 03/15/2023
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**Description:**

Sump 3 (B107/B108), 2.5 inches of freeboard in sump, no sheen or odor noted, bailer used to observe color of the water, which was noted as very light brown.

Lat: 29.784172  
Long: -95.320998







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**27**

**Inspection Date:**  
03/15/2023

**Description:**

Stalls A60-A68, brown staining material observed within asphalt cracks, prior to cleaning, looking west.

Lat: 29.785392,  
Long: -95.318655



**Photo No.**  
**28**

**Inspection Date:**  
03/15/2023

**Description:**

Slots A060-A070 after OMI power washing asphalt surface, residue removed, residual staining noted, looking west. Wash water vacuumed up and containerized in a tote onsite.

Lat: 29.785392,  
Long: -95.318655







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

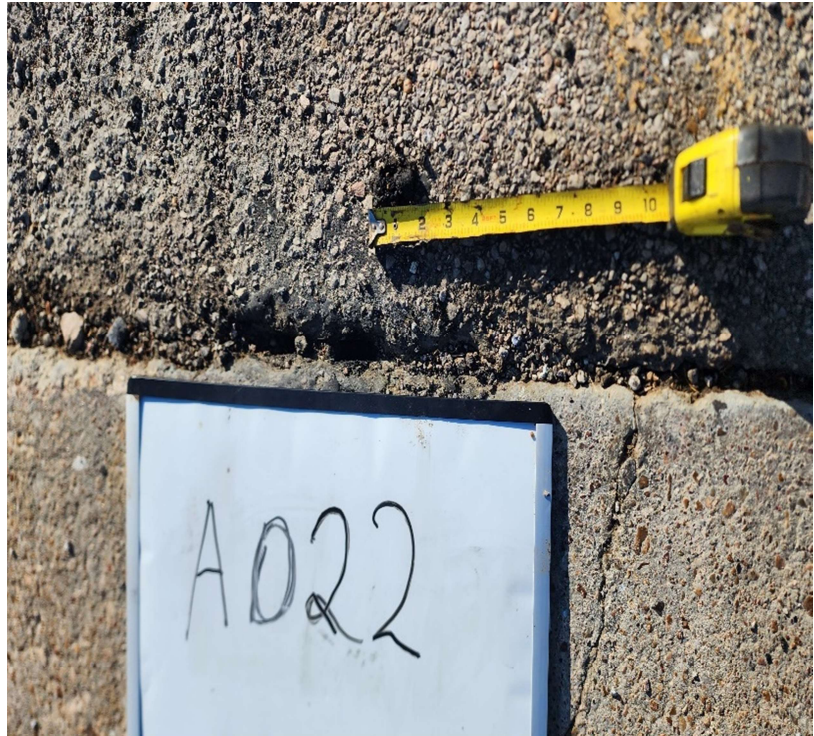
**Photo No.**  
**29**

**Inspection Date:**  
03/15/2023

**Description:**

Stall A022, small amount of tar-like material observed at the seep location along the edge tar-like material seeps observed, looking northwest. Material was removed.

Lat: 29.785381  
Long: - 95.318619



**Photo No.**  
**30**

**Inspection Date:**  
03/15/2023

**Description:**

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: 29.78505  
Long: -95.32124







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**31**

**Inspection Date:**  
03/22/2023

**Description:**

Stalls A010-A011, no tar-like material at historical seep location, or at the test pit (July 2020), looking southeast.

Lat: 29.785392,  
Long: -95.318655



**Photo No.**  
**32**

**Inspection Date:**  
03/22/2023

**Description:**

Stalls B107-B108, view of NAPL collection system (Sump 3 in background of photo), no new tar-like material observed at seep location on concrete joint along the southern edge of the excavated area, looking northwest.

Lat: 29.784156  
Long: -95.320953





**Client Name:**  
**Union Pacific Railroad****Site Location:**  
Englewood Intermodal Yard, Houston, Texas**Project No.**  
19119232**Photo No.**  
**33****Inspection Date:**  
03/22/2023**Description:**

Sump 1 (B099/B100), 8 inches of freeboard in sump, no new NAPL accumulation on inflow protector, no sheen or odor noted, color was noted as light brown.

Lat: 29.7844000  
Long: - 95.3205861

**Photo No.**  
**34****Inspection Date:**  
03/22/2023**Description:**

Sump 2 (B103/B104), 26.5 inches of freeboard, no sheen or odor noted, color was noted as clear.

Lat: 29.7842861  
Long: - 95.3208611





**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**35**

**Inspection Date:**  
03/22/2023

**Description:**

Sump 3 (B107/B108), 25.5 inches of freeboard in sump, no sheen observed on the water, no odor noted, color was noted as clear.

Lat: 29.784172  
Long: -95.320998



**Photo No.**  
**36**

**Inspection Date:**  
03/22/2023

**Description:**

Stalls A060-A065, no new staining observed, some residual staining noted, looking west.

Lat: 29.784858  
Long: -95.319733







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**37**

**Inspection Date:**  
03/22/2023

**Description:**

Stall B057, no tar-like material at historical seep location, or at the test pit (July 2020), looking northwest.

Lat: 29.7847472  
Long: - 95.3195417



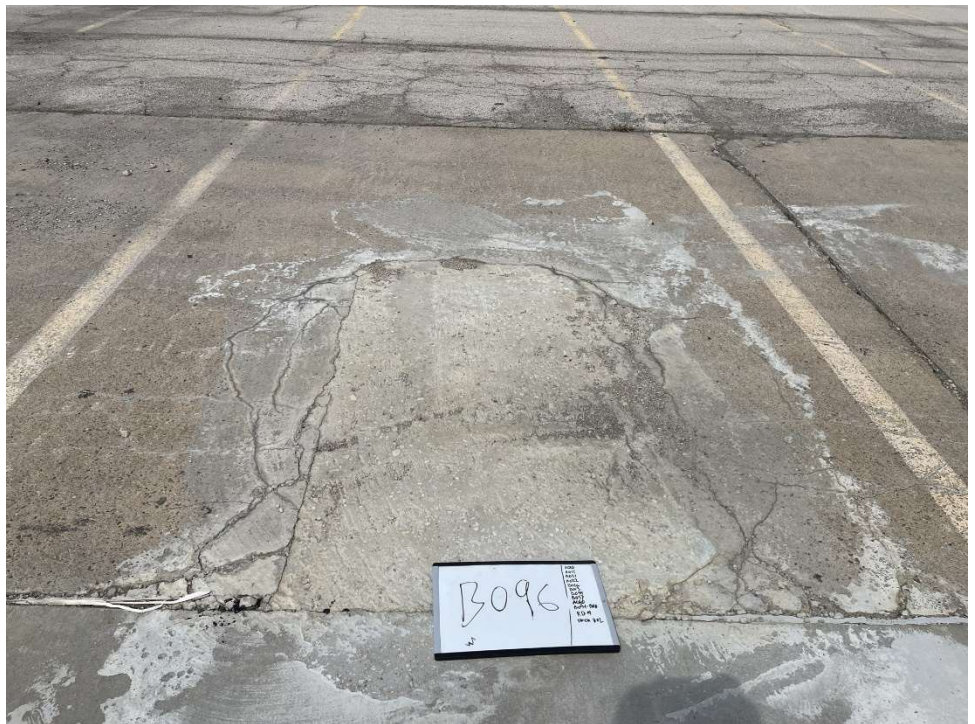
**Photo No.**  
**38**

**Inspection Date:**  
03/22/2023

**Description:**

Stall B096, no new tar-like material observed at historical seep location adjacent to July 2020 test pit, looking northwest.

Lat: 29.7842528  
Long: - 95.3206250







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**39**

**Inspection Date:**  
03/29/2023

**Description:**

Stall A011 very small amount of tar-like material observed at historical seep location along concrete joint adjacent to July 2020 test pit. Material was removed.

Lat: 29.785392,  
Long: -95.318655



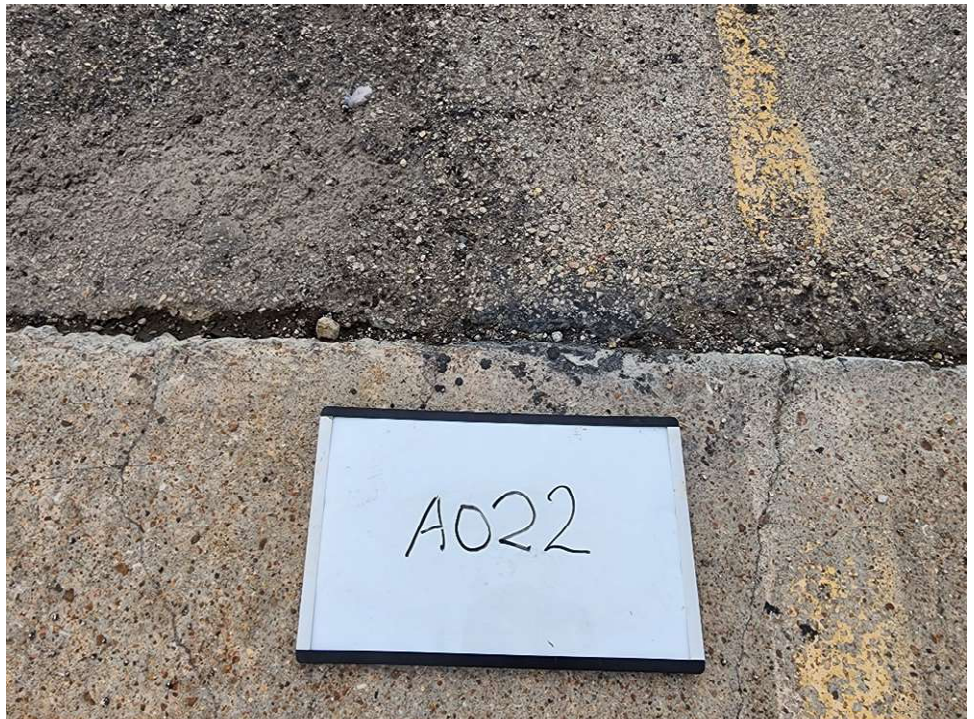
**Photo No.**  
**40**

**Inspection Date:**  
03/29/2023

**Description:**

Stall A022, no new tar-like material observed at the historical seep location, looking northwest.

Lat: 29.785381  
Long: - 95.318619







# PHOTOGRAPHIC LOG

**Client Name:**  
Union Pacific Railroad

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
41

**Inspection Date:**  
03/29/2023

**Description:**

Stall B101 joint, very small amount of tar-like material observed near historical seep location along asphalt crack.

Lat: 29.7842203

Long: - 95.320827



**Photo No.**  
42

**Inspection Date:**  
03/29/2023

**Description:**

Sump 1 (B099/B100), 3 inches of freeboard in sump, no new NAPL accumulation on inflow protector, no sheen or odor noted, color was noted as light brown.

Lat: 29.7844000

Long: - 95.3205861





**Client Name:**  
**Union Pacific Railroad****Site Location:**  
Englewood Intermodal Yard, Houston, Texas**Project No.**  
19119232**Photo No.**  
**43****Inspection Date:**  
03/29/2023**Description:**

Sump 2 (B103/B104), 24 inches of freeboard, no sheen observed on the water, no odor noted, color was noted as clear.

Lat: 29.7842861  
Long: - 95.3208611

**Photo No.**  
**44****Inspection Date:**  
03/29/2023**Description:**

Sump 3 (B107/B108), 25 inches of freeboard in sump, no sheen observed on the water, no odor noted, color was noted as clear.

Lat: 29.784172  
Long: -95.320998







# PHOTOGRAPHIC LOG

**Client Name:**  
**Union Pacific Railroad**

**Site Location:**  
Englewood Intermodal Yard, Houston, Texas

**Project No.**  
19119232

**Photo No.**  
**45**

**Inspection Date:**  
03/29/2023

**Description:**

Stalls A060-A065, no new staining observed, some residual noted, looking west.

Lat: 29.784858  
Long: -95.319733



**Photo No.**  
**46**

**Inspection Date:**  
03/29/2023

**Description:**

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: 29.78505  
Long: -95.32124

