6121 Indian School Road, NE Suite 200
Albuquerque, New Mexico 87110
United States
ghd.com

Your ref: Incident Number nCH1823943024
Our ref: 12603935-NMOCD-1

July 01, 2024

REVIEWED
By Mike Buchanan at 3:36 pm, Aug 20, 2024

State of New Mexico
Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

Review of the 2023 Annual Groundwater Monitoring Report: content satisfactory
1. Continue to conduct groundwater monitoring on a semi-annual schedule as requested.
2. BTEX may be suspended from the sampling analyses as there have been at least eight consecutive quarters sampled below the WQCC human health standards.
3. Install absorbent socks for passive recovery in the SVE 3 and SVE 1
4. If not already completed, please continue with addition soil sampling as proposed for further delineation at depth greater than 30 ft.
5. Submit the 2024 annual monitoring report with recommendations from findings for soil and/or groundwater results.

2023 Annual Groundwater Monitoring Report
O-6 Pipeline Release
ET Gathering & Processing LLC
Lea County, New Mexico
New Mexico Oil Conservation Division Remediation Permit 1RP-1577
Incident Number nCH1823943024

To whom it may concern:

On behalf of ET Gathering & Processing LLC (ET G&P) formerly ETC Texa GHD Services Inc. (GHD) is submitting the 2023 Annual Groundwater Monitoring above-referenced property (Site) to the New Mexico Oil Conservation Division (NM marizes activities performed at the Site during 2023 in accordance with the NMOCD esponse to the *2022 Annual Groundwater Monitoring Report* submitted to the NMOCD

Should you have any questions or comments regarding this submittal, plea ed.

Regards,

Nate Reece
Project Manager

+1 281 386-7158
nate.reece@ghd.com

Blair Owen
Project Director

+1 561 339-3572
blair.owen@ghd.co

NR/mss/1

Encl. 2023 Annual Groundwater Monitoring Report

Copy to:. Stacy Boultinghouse, Energy Transfer
Terry Richey, c/o Millard Deck Testamentary Trust c/o Southwest Bank Wealth & Management Trust Services

2023 Annual Groundwater Monitoring Report

O-6 Pipeline Release
Lea County, New Mexico
NMOCD 1RP-5177
Incident Number nCH1823943024

ET Gathering & Processing LLC

July 01, 2024

→ The Power of Commitment

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1. Introduction

This report presents the results of groundwater monitoring activities and soil sampling performed during 2023 by GHD Services Inc. (GHD) at the ET Gathering & Processing LLC (ET G&P) O-6 pipeline release (Site). The Site is located approximately 5 miles south of Monument, New Mexico within Unit J, Section 27, Township 20 South, Range 37 East, in Lea County, New Mexico (**Figure 1**). The Site is regulated by the New Mexico Oil Conservation Division (NMOCD) under remediation permit 1RP-1577 and is associated with NMOCD incident number nCH1823943024. The Site surface is privately owned by the Millard Deck Estate.

1.1 Site Description and Background

In March 2018, a leak was discovered in a four-inch O-6 pipeline when a bell hole was excavated to expose a portion of the pipeline for repairs. The bell hole was approximately 18 feet long, 12 feet wide, and 4 feet deep. The NMOCD was notified of the open bell hole and release in March 2018. A total of three monitoring wells and four soil vapor extraction (SVE) wells have been installed at the Site. A Site Plan showing the well locations and Site features is included as **Figure 2**.

Assessment activities at the Site began on March 28, 2018, when soil samples were collected from the walls of the open bell hole and from a test pit dug deeper within the bell hole to 12 feet below ground surface (ft bgs). The samples were collected and analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (US EPA) SW-846 Method 8021B, full range total petroleum hydrocarbons (TPH) by US EPA SW-846 Method 8015B Modified, and chloride by Standard Method 4500. The test pit was excavated an additional 8 ft to a total depth of approximately 20 ft bgs on April 8, 2018, and an additional soil sample was collected from its base. Analytical results from both sampling events indicate that BTEX, TPH, and chloride were detected in the soil at the Site at concentrations that exceeded their respective Site-specific Recommended Remedial Action Limits (RRAL) as per the New Mexico Administrative Code (NMAC), Title 19, Chapter 15, Part 29 (19.15.29).

Additional soil investigations were conducted in May and July 2018, which included advancing two soils borings (SB-1 and SB-2). Soil analytical results from these investigations indicated BTEX and TPH were detected at concentrations that exceeded the NMOCD Remediation Action Levels (RALs). A summary of the May and July 2018 investigations was detailed in a letter report to the NMOCD dated September 13, 2018. The September 2018 report also included a work plan proposal to conduct additional Site characterization of both soil and groundwater via advancement of additional soil borings and installation of monitoring and remediation wells. The work plan was approved by the NMOCD on October 19, 2018.

Delineation of soil impacts continued during November 2018 with the advancement of five soil borings via hand auger (HA-1 through HA-5) and three soil borings via hollow stem auger (HSA) (MW-1, SB-2, SVE-1). MW-1 was completed as a groundwater monitoring well, SVE-1 was completed as an SVE well, and SB-2 was plugged at the end of drilling activities. Groundwater was confirmed to be approximately 53 to 55 ft bgs below a 2 to 3 ft thick clay layer at approximately 50 ft bgs. Soil analytical results from SVE-1 indicated BTEX and TPH were detected at concentrations that exceeded the NMOCD RALs. Soil analytical results for the remaining HSA and hand auger borings indicated detected concentrations were below the NMOCD RALs. A summary of soil analytical results is presented in **Table 1**.

Three mobile SVE events were performed in 2019 on well SVE-1, which removed an estimated 266 pounds (lbs) of TPH gasoline range organics (GRO) from the subsurface at the Site. In December 2019, three additional SVE wells (SVE-2 through SVE-4) and two groundwater monitoring wells (MW-2 and MW-3) were installed.

Clear Fork Consulting Services (Clear Fork) performed 30-day mobile dual phase extraction (MDPE) events at the Site in April 2020, April 2021, June 2021, September 2021, April 2022, and August 2022, the details of which are provided in previous annual groundwater monitoring reports submitted to the NMOCD. A total of approximately 2,083 gallons of combined vapor and liquid hydrocarbons and 1,220 gallons of potentially hydrocarbon impacted

groundwater were recovered from the subsurface during these events. Due to low recoveries, MDPE ceased at the end of 2022 and the propane tank used onsite was removed.

Quarterly groundwater monitoring and a soil sampling event were completed in 2023 and are discussed in greater detail below.

1.2 Site Characterization

According to the New Mexico Bureau of Geology and Mineral Resources Interactive Resources Map, the Site is situated in an area of recent Quaternary eolian and piedmont deposits. Soils typically found in this area consist poorly graded sand and gravels cemented by calcium carbonate.

Groundwater at the Site is encountered at approximately 50 ft bgs and is unconfined. The groundwater gradient is generally to the east.

2. Groundwater Monitoring

GHD performed groundwater monitoring events on March 7, June 20, September 13, and December 15, 2023. The monitoring program included gauging the entire network of wells (SVE-1, SVE-2, SVE-3, SVE-4, MW-1, MW-2, MW-3) and collecting groundwater samples from monitoring wells MW-1, MW-2, and MW-3. SVE wells were either dry, contained LNAPL, or did not contain a sufficient volume of water to sample, and therefore, were not sampled.

2.1 Monitoring Well Gauging

On March 6, June 20, September 13, and December 15, 2023, GHD personnel measured the depth to groundwater and LNAPL thickness, if present, in the wells indicated above using an electronic oil/water interface probe (IP). The IP was cleaned with laboratory-grade soap and purified water prior to gauging each monitoring well. The presence of LNAPL was not detected in any of the monitoring wells gauged but was present in all SVE wells in March and June, and in SVE-1 and SVE-3 in December. Depth to groundwater, LNAPL thickness measurements, and calculated groundwater elevations are summarized in **Table 2**.

Based on the data collected in 2023, groundwater flow is generally east and is consistent with historical data for the Site, with the exception of the June event which shows southeast directional flow. Groundwater potentiometric surface maps for the gauging events are presented as **Figures 3 through 6**. The groundwater gradient was calculated at 0.0017 ft/ft in March, 0.0108 ft/ft in June, 0.0018 ft/ft in September, and at 0.0017 ft/ft in December.

2.2 Groundwater Sampling

Following gauging during each 2023 event and prior to sampling, GHD personnel utilized dedicated polyethylene bailers to purge a minimum of three well volumes of groundwater or until the well was dry. The monitoring wells were given time to recover prior to collecting a groundwater sample. Groundwater quality parameters of temperature, pH, oxidation reduction potential, and conductivity were collected with a field-calibrated multi-parameter groundwater quality meter to confirm stabilization of the groundwater prior to the collection of groundwater samples. A summary of field parameters is presented in **Table 3**.

Following purging and confirmation of groundwater stabilization, groundwater samples were collected from MW-1 through MW-6 via dedicated polyethylene bailers. The samples were placed in laboratory-provided sample containers, which were immediately labeled, sealed, and packed in a cooler with ice, and shipped under chain-of-custody documentation to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico during the first quarterly event and ALS Life Sciences Division, Environmental Laboratory (ALS) in Houston, Texas during the remaining quarterly

events. HALL and ALS are laboratories certified by the National Environmental laboratory Program (NELAP). All samples were analyzed for BTEX via US EPA SW-846 Method 8260 and chloride via US EPA Method 300.0.

2.3 Quality Assurance/Quality Control

During each sampling event, a field duplicate was collected as a Quality Assurance/Quality Control (QA/QC) sample and subsequently submitted for laboratory analysis. A trip blank was also submitted as a QA/QC sample for each groundwater monitoring event.

2.4 Analytical Results

The New Mexico Water Quality Control Commission (NMWQCC) mandates that groundwater quality in New Mexico be protected, and has issued groundwater quality standards in Title 20, Chapter 6, Part 2, Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC). Groundwater quality standards have been set for the protection of human health, domestic water supply, and irrigation use.

The groundwater analytical results for 2023 are summarized in **Table 4** and the corresponding laboratory analytical reports are included in **Appendix A**. A COC concentration map is presented as **Figure 7**. A summary of results is discussed below;

– BTEX was not detected at concentrations above laboratory detection limits in any of the groundwater samples collected from the three wells (MW-1 through MW-3) during 2023.
– Chloride was detected at concentrations that exceeded its NMWQCC standard in all groundwater samples collected from the three wells (MW-1 through MW-3) during each sampling event in 2023.

3. Soil Investigation and Sampling

3.1 Soil Sampling

On October 23, 2023, GHD and White Drilling Company, Inc. (White) mobilized to the Site to install three soil borings (SB-3 through SB-5). The borings were advanced to 30 ft bgs and samples were collected at 5-foot intervals from surface to total depth via split spoon technology. SB-3 was advanced 47 feet east-northeast of the release point, SB-4, was advanced 30 ft east-southeast of the release point, and SB-5 was advanced 14 ft northeast of the release point. All three borings were plugged with bentonite grout upon completion of sample collection. Soil boring locations are shown on **Figure 8**.

Select soil samples were placed in laboratory-provided sample containers, which were immediately labeled, sealed, and stored/transported in a cooler containing ice, and shipped under chain-of-custody documentation to ALS. All samples were analyzed for BTEX by US EPA SW-846 Method 8021B, total TPH by EPA SW-846 Method 8015B Modified, and chloride by US EPA Method 300.0. Once sample was analyzed from each boring: SB-3 (25 ft), SB-4 (7 ft), SB-5 (15 ft).

3.2 Analytical Results

Analytical results indicated none of the samples exhibited benzene, BTEX, TPH or chloride concentrations above New Mexico Administrative Code (NMAC) Table I Closure Criteria for the Site (depth to water 51-100 ft bgs). The soil analytical results for 2023 are presented in **Table 1** and the corresponding laboratory analytical reports are included in **Appendix A**. A COC concentration map is presented as **Figure 8**. A summary of results is discussed below.

– BTEX was not detected at concentrations above laboratory detection limits in any of the soil samples collected from the three soil borings.

- Chloride was detected but concentrations did not exceed NMAC Table I Closure Criteria for the Site in any of the soil samples collected from the three soil borings.
- TPH was detected but concentrations did not exceed NMAC Table I Closure Criteria for the Site in any of the soil samples collected from the three soil borings.

4. Summary and Recommendations

4.1 Summary

The following summarizes the information and data presented in this report:

- Although LNAPL was detected in all SVE wells during 2023, the amounts have diminished significantly. LNAPL was not detected in September and only detected in SVE-1 and SVE-3 in December. The LNAPL appears as a perched feature on top of a thin clay layer in the release area.
- BTEX was not detected at concentrations above the laboratory detection limit in the groundwater samples.
- Chloride was detected at concentrations that exceeded its NMWQCC standard in all groundwater samples.
- BTEX, TPH, and chloride concentrations were not detected above the laboratory detection limit and/or the NMAC Table I Closure Criteria for the Site in the soil samples.
- It should be noted that the soil samples obtained at depth in MW-1 through MW-3 during monitoring well installation were below NMAC Table 1 Closure Criteria for Chlorides; however, Chlorides remain to be detected at concentration exceeding NMWQCC in groundwater.

4.2 Recommendations

Based on the remediation and assessment activities administered to date, GHD recommends the following activities for 2024:

- Continue to conduct groundwater monitoring at the Site; however, shift to a semi-annual sampling schedule.
- Discontinue sampling for BTEX in the groundwater as there have been more than eight consecutive events where the concentrations of BTEX have been below the allowable NMWQCC human health standards.
- Install absorbent socks for passive recovery of residual LNAPL in SVE-1 and SVE-3.
- Conduct an additional soil sampling event to collect soil samples for delineation at intervals greater than 30 ft bgs. Proposed boring locations will be placed near the borings advanced in October 2023.

5. Scope and limitations

This report has been prepared by GHD for ET Gathering & Processing LLC and may only be used and relied on by ET Gathering & Processing LLC for the purpose agreed between GHD and ET Gathering & Processing LLC.

GHD otherwise disclaims responsibility to any person other than ET Gathering & Processing LLC arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

Table 1

Summary of Soil Analytical Results
O-6 Pipeline Release
Lea County, New Mexico
ET Gathering & Processing LLC
NMOCD 1RP-5177

Sample Location	Date	Sample Depth (ft)	Chlorides	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	Total Petroleum Hydrocarbons (TPH)				
									TPH GRO (C6-C10)	TPH DRO (>C10-C28)	TPH ORO (>C28-C36)	TPH GRO+DRO (C6-C28)	Total TPH (C6-C36)
NMAC Soil Closure Criteria			**10,000**	**10**	**ne**	**ne**	**ne**	**50**	**ne**	**ne**	**ne**	**1,000**	**2,500**
Vertical	3/28/2018	12	256	**18.1**	108	148	377	**652**	11,700	5,170	1,320	**16,900**	**18,200**
Vertical	4/3/2018	20	432	**21.1**	179	213	464	**877**	13,500	2,890	<100	**16,400**	**16,400**
North	3/28/2018	4	5,840	<2.00	7.68	11.3	32.1	**51.0**	959	1,390	990	**2,350**	**3,340**
South	3/28/2018	4	1,010	<0.300	<0.0500	<0.0500	<0.150	<0.0500	<10.0	26.9	29.2	26.9	56.1
East Wall	3/28/2018	4	912	<2.00	<2.00	6.79	63.6	**70.4**	2,290	3,060	1600	**5,350**	**6,950**
West Wall	3/28/2018	4	752	<0.300	<0.0500	<0.0500	<0.150	<0.0500	<10.0	30.7	38.7	30.7	69.4
SB	5/15/2018	5	<30.0	<0.0230	<0.0460	<0.0460	<0.093	<0.208	<4.60	<9.80	<49.0	<14.4	<63.4
SB	5/15/2018	10	<30.0	--	--	--	--	--	--	--	--	--	--
SB	5/15/2018	15	190	<0.0230	<0.0460	<0.0460	<0.092	<0.207	<4.60	<9.90	<49.0	<14.5	<63.4
SB	5/15/2018	20	280	--	--	--	--	--	--	--	--	--	--
SB	5/15/2018	25	370	--	--	--	--	--	--	--	--	--	--
SB	5/15/2018	30	280	--	--	--	--	--	--	--	--	--	--
SB	5/15/2018	35	280	--	--	--	--	--	--	--	--	--	--
SB	5/15/2018	40	230	<0.0240	<0.0490	<0.0490	<0.0980	<0.220	<4.90	<10.0	<50.0	<14.9	<64.9
SB-2	7/30/2018	20	800	4.23	47.3	48.7	122	**222**	2,390	404	<50.0	**2,800**	**2,800**
SB-2	7/30/2018	25	688	2.21	19.3	25.1	60.5	**107**	1,230	297	<100	**1,530**	1,530
SB-2	7/30/2018	30	320	--	--	--	--	--	--	--	--	--	--
SB-2	7/30/2018	35	320	--	--	--	--	--	--	--	--	--	--
SB-2	7/30/2018	40	320	1.03	18.0	23.2	48.2	**90.4**	1,250	156	<50.0	**1,410**	1,410
SB-2*	11/27/2018	5	57.0	<0.0240	<0.0490	<0.0490	<0.0970	<0.219	<4.90	<9.70	<49.0	<14.6	<63.6
SB-2*	11/27/2018	10	52.0	<0.0240	<0.0480	<0.0480	<0.0970	<0.217	<4.80	<9.70	<48.0	<14.5	<62.5
SB-2*	11/27/2018	20	150	<0.0240	<0.0480	<0.0480	<0.0970	<0.217	<4.80	<10.0	<50.0	<14.8	<64.8
HA-1	11/27/2018	1	<30.0	<0.0250	<0.0500	<0.0500	<0.100	<0.225	<5.00	<9.80	<49.0	<14.8	<63.8
HA-1	11/27/2018	3	<30.0	<0.0240	<0.0490	<0.0490	<0.0970	<0.219	<4.90	14.0	<50.0	14.0	<68.9
HA-2	11/27/2018	1	<30.0	<0.0250	<0.0490	<0.0490	<0.099	<0.222	<4.90	<9.70	<49.0	<14.6	<63.6
HA-2	11/27/2018	3	<30.0	<0.0230	<0.0460	<0.0460	<0.093	<0.208	<4.60	<9.80	<49.0	<14.4	<63.4
HA-3	11/27/2018	1	<30.0	<0.0240	<0.0480	<0.0480	<0.095	<0.215	<4.80	<9.90	<50.0	<14.7	<64.7
HA-3	11/27/2018	3	<30.0	<0.0250	<0.0490	<0.0490	<0.098	<0.221	<4.90	<9.70	<49.0	<14.6	<63.6
HA-4	11/27/2018	1	<30.0	<0.0240	<0.0480	<0.0480	<0.0970	<0.217	<4.80	<9.80	<49.0	<14.6	<63.6
HA-4	11/27/2018	3	<30.0	<0.0240	<0.0490	<0.0490	<0.0970	<0.219	<4.90	<9.70	<48.0	<14.6	<62.6
HA-5	11/29/2018	5	<30.0	<0.0240	<0.0470	<0.0470	<0.095	<0.213	<4.70	<10.0	<50.0	<14.7	<64.7
HA-5	11/29/2018	8	<30.0	<0.0240	<0.0490	<0.0490	<0.0970	<0.219	<4.90	<9.80	<49.0	<14.7	<63.7
MW-1	11/28/2018	20	120	<0.0240	<0.0480	<0.0480	<0.095	<0.215	<4.80	<9.80	<49.0	<14.6	<63.6
MW-1	11/28/2018	50	290	<0.0230	<0.0460	<0.0460	<0.092	<0.207	<4.60	<9.70	<49.0	<14.3	<63.3
MW-1	11/28/2018	53	230	<0.0240	<0.0480	<0.0480	<0.096	<0.216	<4.80	<9.60	<48.0	<14.4	<62.4
MW-2	12/13/2019	45-47	330	<0.0250	<0.0500	<0.0500	<0.099	<0.224	<5.00	43.0	130	43.0	173
MW-2	12/13/2019	55	140	<0.0230	<0.0460	<0.0460	<0.093	<0.208	<4.60	16.0	<49.0	16.0	16.0
MW-3	12/12/2019	20-22	<61.0	<0.0240	<0.0480	<0.0480	<0.095	<0.215	<4.80	<9.50	<48.0	<14.3	<62.3
MW-3	12/12/2019	50-52	290	<0.0230	<0.0460	<0.0460	<0.092	<0.207	<4.60	16.0	<45.0	16.0	16.0
SVE-1	11/27/2018	15	160	<0.120	0.560	2.10	5.20	7.98	250	400	870	650	1,520
SVE-1	11/27/2018	20	790	2.10	36.0	38.0	81.0	**157**	2,300	1,000	1600	**3,300**	**4,900**
SVE-1	11/27/2018	35	250	<0.490	4.20	16.0	36.0	**56.7**	1,500	970	230	**2,470**	**2,700**

Table 1

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O-6 Pipeline Release
Lea County, New Mexico
ET Gathering & Processing LLC
NMOCD 1RP-5177

Sample Location	Date	Sample Depth (ft)	Chlorides	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	Total Petroleum Hydrocarbons (TPH)				
									TPH GRO (C6-C10)	TPH DRO (>C10-C28)	TPH ORO (>C28-C36)	TPH GRO+DRO (C6-C28)	Total TPH (C6-C36)
NMAC Soil Closure Criteria			**10,000**	**10**	**ne**	**ne**	**ne**	**50**	**ne**	**ne**	**ne**	**1,000**	**2,500**
SVE-1	11/27/2018	51	180	<0.0230	<0.0460	0.140	0.360	0.569	12.0	120	360	132	492
SVE-2	12/3/2019	10-12	190	<0.46	0.700	2.20	36.0	38.9	1,000	1,800	2,100	**2,800**	**4,900**
SVE-2	12/4/2019	45-47	240	1.60	21.0	21.0	44.0	**87.6**	1,500	620	580	**2,120**	**2,700**
SVE-2	12/4/2019	49	270	0.230	4.80	6.90	15.0	26.9	430	210	260	640	850
SVE-3	12/4/2019	10-12	340	<0.25	0.620	3.90	13.0	17.5	440	820	1,200	**1,260**	2,460
SVE-3	12/4/2019	47-49	140	18.0	210	140	200	**568**	7,400	3,000	2700	**10,400**	**13,100**
SVE-3	12/4/2019	52	170	<0.120	2.70	4.70	10.0	17.4	280	110	160	390	530
SVE-4	12/12/2019	45-47	250	<0.0230	<0.0470	<0.0470	<0.094	<0.211	<4.70	<9.40	<47.0	<13.7	<60.7
SVE-4	12/12/2019	50-51	250	<0.0240	<0.0470	0.140	0.390	0.530	13.0	43.0	110	56.0	166
SB-3	10/23/2023	25	758	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.058	70	120	70	190
SB-4	10/23/2023	7	9.41	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.053	6.4	5.1	6.4	11.5
SB-5	10/23/2023	15	47.2	<0.0062	<0.0062	<0.0062	<0.0062	<0.0062	<0.064	140	14	140	154

Notes:
1) Analytical results are presented in milligrams per kilogram (mg/kg).
2) NMAC - New Mexico Administrative Code
3) ft - feet ne - not established
4) GRO - gasoline range organics, DRO - diesel range organics, ORO - oil range organics
5) -- = not analyzed
6) < - Analyte was not detected at or above the laboratory reporting limit.
7) Bolded/shaded results exceed their respective NMAC Closure Criteria for Soils Impacted by a Release (Title 19, Chapter 15, Part 29; Table I) where depth to groundwater is between 51 and 100 ft below ground surface.
8) There are two SB-2 borings that are at different locations at the Site. The boring advanced in November 2018 is denoted by SB-2*.

Table 2

Summary of Groundwater Elevation Data
O-6 Pipeline Release
Lea County, New Mexico
ET Gathering & Processing LLC
NMOCD 1RP-5177

Well ID	Date Measured	Top of Casing Elevation (ft AMSL)	Screen Interval (ft below TOC)	Total Depth (ft below TOC)	Depth to LNAPL (ft below TOC)	Depth to Groundwater (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-1	12/4/2018	3,505.24	44-64	65.60	--	53.26	--	3,451.98
	5/20/2019			65.60	--	52.74	--	3,452.50
	12/13/2019			65.60	--	53.11	--	3,452.13
	2/24/2020			65.60	--	52.94	--	3,452.30
	4/20/2020			65.60	--	52.86	--	3,452.38
	7/28/2020			65.60	--	53.29	--	3,451.95
	11/16/2020			65.60	--	53.60	--	3,451.64
	4/1/2021			65.60	--	53.60	--	3,451.64
	4/19/2021			65.60	--	53.35	--	3,451.89
	6/16/2021			65.60	--	53.53	--	3,451.71
	9/13/2021			65.60	--	53.54	--	3,451.70
	11/29/2021			65.60	--	53.62	--	3,451.62
	3/17/2022			65.60	--	53.46	--	3,451.78
	4/11/2022			65.60	--	53.54	--	3,451.70
	6/30/2022			65.60	--	53.78	--	3,451.46
	8/30/2022			65.60	--	54.16	--	3,451.08
	11/10/2022			65.60	--	53.89	--	3,451.35
	3/6/2023			65.59	--	53.73	--	3,451.51
	6/20/2023			65.50	--	53.62	--	3,451.62
	9/13/2023			66.22	--	54.07	--	3,451.17
	12/15/2023			65.34	--	53.97	--	3,451.27
MW-2	12/13/2019	3506.44	43-63	65.60	--	54.32	--	3452.12
	2/24/2020			65.60	--	54.13	--	3452.31
	4/20/2020			65.60	--	54.03	--	3452.41
	7/28/2020			65.60	--	54.48	--	3451.96
	11/16/2020			65.60	--	54.80	--	3451.64
	4/1/2021			65.60	--	54.76	--	3451.68
	4/19/2021			65.60	--	54.54	--	3451.90
	6/16/2021			65.60	--	54.71	--	3451.73
	9/13/2021			65.60	--	54.73	--	3451.71
	11/29/2021			65.60	--	54.80	--	3451.64
	3/17/2022			65.60	--	54.68	--	3451.76
	4/11/2022			65.60	--	54.71	--	3451.73
	6/30/2022			65.60	--	54.97	--	3451.47
	8/30/2022			65.60	--	55.38	--	3451.06
	11/10/2022			65.60	--	55.10	--	3451.34
	3/6/2023			65.32	--	54.91	--	3451.53
	6/20/2023			65.60	--	55.78	--	3450.66
	9/13/2023			66.21	--	55.26	--	3451.18
	12/15/2023			65.45	--	55.17	--	3451.27

Table 2

Summary of Groundwater Elevation Data
O-6 Pipeline Release
Lea County, New Mexico
ET Gathering & Processing LLC
NMOCD 1RP-5177

Well ID	Date Measured	Top of Casing Elevation (ft AMSL)	Screen Interval (ft below TOC)	Total Depth (ft below TOC)	Depth to LNAPL (ft below TOC)	Depth to Groundwater (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-3	12/13/2019	3505.08	45-65	67.80	--	52.84	--	3452.24
	2/24/2020			67.80	--	52.65	--	3452.43
	4/20/2020			67.80	--	52.55	--	3452.53
	7/28/2020			67.80	--	53.00	--	3452.08
	11/16/2020			67.80	--	53.31	--	3451.77
	4/1/2021			67.80	--	53.28	--	3451.80
	4/19/2021			67.80	--	53.06	--	3452.02
	6/16/2021			67.80	--	53.24	--	3451.84
	9/13/2021			67.80	--	53.24	--	3451.84
	11/29/2021			67.80	--	53.51	--	3451.57
	3/17/2022			67.80	--	53.18	--	3451.90
	4/11/2022			67.80	--	53.24	--	3451.84
	6/30/2022			67.80	--	53.49	--	3451.59
	8/30/2022			67.80	--	53.89	--	3451.19
	11/10/2022			67.80	--	53.62	--	3451.46
	3/6/2023			68.78	--	53.44	--	3451.64
	6/20/2023			67.89	--	53.44	--	3451.64
	9/13/2023			68.75	--	53.78	--	3451.30
	12/15/2023			67.51	--	53.69	--	3451.39
SVE-1	12/4/2018	3505.21	13-53	55.30	52.02	55.22	3.20	3452.55
	5/20/2019			55.30	51.84	55.25	3.41	3452.69
	12/13/2019			55.30	52.05	54.71	2.66	3452.63
	2/24/2020			55.30	51.93	54.69	2.76	3452.73
	4/20/2020			55.30	51.85	54.68	2.83	3452.79
	7/28/2020			55.30	52.45	54.64	2.19	3452.32
	11/16/2020			55.30	52.55	54.63	2.08	3452.24
	4/1/2021			55.30	52.60	54.65	2.05	3452.20
	4/19/2021			55.30	52.54	54.61	2.07	3452.26
	6/16/2021			55.30	--	--	--	--
	9/13/2021			55.30	53.21	53.70	0.49	3451.90
	11/29/2021			55.30	53.37	53.45	0.08	3451.82
	3/17/2022			55.30	53.25	54.20	0.95	3451.77
	4/11/2022			55.30	53.15	54.25	1.10	3451.84
	6/30/2022			55.30	--	53.49	--	3451.72
	8/30/2022			55.30	--	53.54	--	3451.67
	11/10/2022			55.30	--	55.28	--	3449.93
	3/6/2023			--	53.59	53.68	0.09	3451.60
	6/20/2023			--	53.59	53.62	0.03	3451.61
	9/13/2023			55.60	--	53.63	--	3451.58
	12/15/2023			--	54.36	54.40	0.04	3450.84

Table 2

Summary of Groundwater Elevation Data
O-6 Pipeline Release
Lea County, New Mexico
ET Gathering & Processing LLC
NMOCD 1RP-5177

Well ID	Date Measured	Top of Casing Elevation (ft AMSL)	Screen Interval (ft below TOC)	Total Depth (ft below TOC)	Depth to LNAPL (ft below TOC)	Depth to Groundwater (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft AMSL)
SVE-2	12/13/2019	3504.98	15-50	51.20	--	--	--	--
	2/24/2020			51.20	--	--	--	--
	4/20/2020			51.20	--	--	--	--
	7/28/2020			51.20	--	--	--	--
	11/16/2020			51.20	--	--	--	--
	4/1/2021			51.20	--	--	--	--
	4/19/2021			51.20	--	--	--	--
	6/16/2021			51.20	--	--	--	--
	9/13/2021			51.20	--	--	--	--
	11/29/2021			51.20	--	--	--	--
	3/17/2022			51.20	--	--		--
	4/11/2022			51.20	--	--	--	--
	6/30/2022			51.20	--	--	--	--
	8/30/2022			51.20	--	--	--	--
	11/10/2022			51.20	--	51.17	--	3453.81
	3/6/2023			--	51.27	51.27	0.00	3453.71
	6/20/2023			--	51.15	51.27	0.12	3454.04
	9/13/2023			--	--	51.15	--	3453.83
	12/15/2023			51.30	--	51.15	--	3453.83
SVE-3	12/13/2019	3505.50	16-51	53.87	52.32	53.90	1.58	3452.87
	2/24/2020			53.87	52.23	53.85	1.62	3452.95
	4/20/2020			53.87	52.11	53.53	1.42	3453.11
	7/28/2020			53.87	52.70	53.37	0.67	3452.67
	11/16/2020			53.87	52.81	53.10	0.29	3452.63
	4/1/2021			53.87	--	52.86	--	3452.64
	4/19/2021			53.87	52.82	51.79	1.03	3463.25
	6/16/2021			53.87	53.01	52.47	0.54	3463.09
	9/13/2021			53.87	53.16	52.47	0.69	3462.97
	11/29/2021			53.87	53.26	53.28	0.02	3452.24
	3/17/2022			53.87	53.23	--	0.64	--
	4/11/2022			53.87	53.16	--	0.71	--
	6/30/2022			53.87	--	53.32	--	3452.18
	8/30/2022			53.87	--	53.31	--	3452.19
	11/10/2022			53.87	53.44	53.71	0.27	3452.01
	3/6/2023			--	53.45	53.75	0.30	3451.99
	6/20/2023			--	53.45	53.68	0.23	3452.01
	9/13/2023			--	--	53.48	--	3452.02
	12/15/2023			53.79	53.70	53.75	0.05	3451.79

Table 2

Summary of Groundwater Elevation Data
O-6 Pipeline Release
Lea County, New Mexico
ET Gathering & Processing LLC
NMOCD 1RP-5177

Well ID	Date Measured	Top of Casing Elevation (ft AMSL)	Screen Interval (ft below TOC)	Total Depth (ft below TOC)	Depth to LNAPL (ft below TOC)	Depth to Groundwater (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft AMSL)
SVE-4	12/13/2019	3507.49	39-49	53.16	--	--	--	--
	2/24/2020			53.16	--	--	--	--
	4/20/2020			53.16	--	--	--	--
	7/28/2020			53.16	--	--	--	--
	11/16/2020			53.16	--	--	--	--
	4/1/2021			53.16	--	--	--	--
	4/19/2021			53.16	--	--	--	--
	6/16/2021			53.16	--	--	--	--
	9/13/2021			53.16	--	--	--	--
	11/29/2021			53.16	--	--	--	--
	3/17/2022			53.16	--	--	--	--
	4/11/2022			53.16	--	--	--	--
	6/30/2022			53.16	--	--	--	--
	8/30/2022			53.16	--	--	--	--
	11/10/2022			53.16	--	53.03	--	3454.46
	3/6/2023			--	53.03	53.03	0.00	3454.46
	6/20/2023			--	53.03	53.03	0.00	3454.46
	9/13/2023			--	--	53.02	--	3454.47
	12/15/2023			53.03	--	--	--	--

Notes:
1) ft = feet
2) AMSL = above mean sea level
3) LNAPL = light non-aqueous phase liquid
4) TOC = top of casing
5) --- = not applicable or not measured
6) LNAPL = Light non-aqueous phase liquid
7) LNAPL specific density assumed to be 0.80.
8) * = Value exceeds Maximum Contaminant Level.

Table 3

Summary of Groundwater Field Parameters
O-6 Pipeline Release
Lea County, New Mexico
ET Gathering & Processing LLC
NMOCD 1RP-5177

Well ID	Sample Date	pH	Field Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)
MW-1	12/4/2018	7.22	16.69	11,100	7.48	49.2
	4/20/2020	7.29	20.40	10,200	2.29	-11.7
	11/16/2020	7.13	19.38	10,900	2.07	47.8
	4/1/2021	7.27	19.35	8,430	3.20	38.9
	6/16/2021	7.19	20.04	6,730	3.07	83.5
	9/13/2021	7.36	19.70	6,400	3.31	79.1
	11/29/2021	7.23	19.33	10,400	4.06	55.3
	3/17/2022	7.27	18.86	9,490	4.78	204
	6/30/2022	8.45	19.91	7,230	4.30	262
	8/30/2022	7.24	19.77	7,210	5.15	239
	11/9/2022	7.20	18.97	10,600	5.73	273
	3/6/2023	6.84	19.33	496	--	153
	6/20/2023	8.03	30.95	7,205	3.73	153
	9/13/2023	7.02	20.75	269,986	0.83	232
	12/15/2023	7.44	19.33	9,282	6.22	241
MW-2	4/20/2020	7.75	19.00	9,030	1.70	-13.6
	11/16/2020	7.31	19.20	9,390	1.55	130
	4/1/2021	7.34	19.32	7,910	1.27	32.8
	6/16/2021	7.27	19.95	5,970	0.89	21.1
	9/13/2021	7.37	19.41	5,630	1.04	42.5
	11/29/2021	2.28	19.19	9,280	2.60	-9.60
	3/17/2022	7.25	19.32	8,590	1.76	131
	6/30/2022	8.21	19.69	7,050	0.46	225
	8/30/2022	7.21	19.55	6,480	2.60	223
	11/9/2022	7.20	19.37	9,960	1.27	237
	3/6/2023	6.91	20.21	293	--	124
	6/20/2023	7.87	28.70	7,511	1.85	148
	9/13/2023	7.36	21.03	254,233	0.68	214
	12/15/2023	8.22	19.83	8,055	2.41	193
MW-3	4/20/2020	7.73	18.60	9,660	1.70	88.5
	11/16/2020	7.19	19.36	10,000	1.26	75.0
	4/1/2021	7.37	19.25	7,360	1.68	31.6
	6/16/2021	7.20	19.95	6,290	1.34	63.1
	9/13/2021	7.31	19.90	5,990	1.35	71.9
	11/29/2021	7.21	19.35	753,000*	0.00*	37.3
	3/17/2022	7.25	18.65	8,960	1.98	188
	6/30/2022	8.01	19.41	6,860	0.73	214
	8/30/2022	7.28	19.68	6,760	2.99	256
	11/9/2022	7.11	20.40	10,100	1.28	249
	3/6/2023	7.08	21.72	8,558	--	124
	6/20/2023	7.63	26.97	7,639	1.69	158
	9/13/2023	6.98	22.81	2,102	7.37	210
	12/15/2023	7.92	19.55	8,599	3.80	221

Notes:
1) C° = degrees Celsius
2) µS/cm = microsiemens per centimeter
3) mg/L = milligrams per liter
4) DO = dissolved oxygen
5) ORP = oxygen reduction potential
6) mV = millivolts
7) * = erroneous data - probe malfunction

Table 4

Summary of Groundwater Analytical Results
O-6 Pipeline Release
Lea County, New Mexico
ET Gathering & Processing LLC
NMOCD 1RP-5177

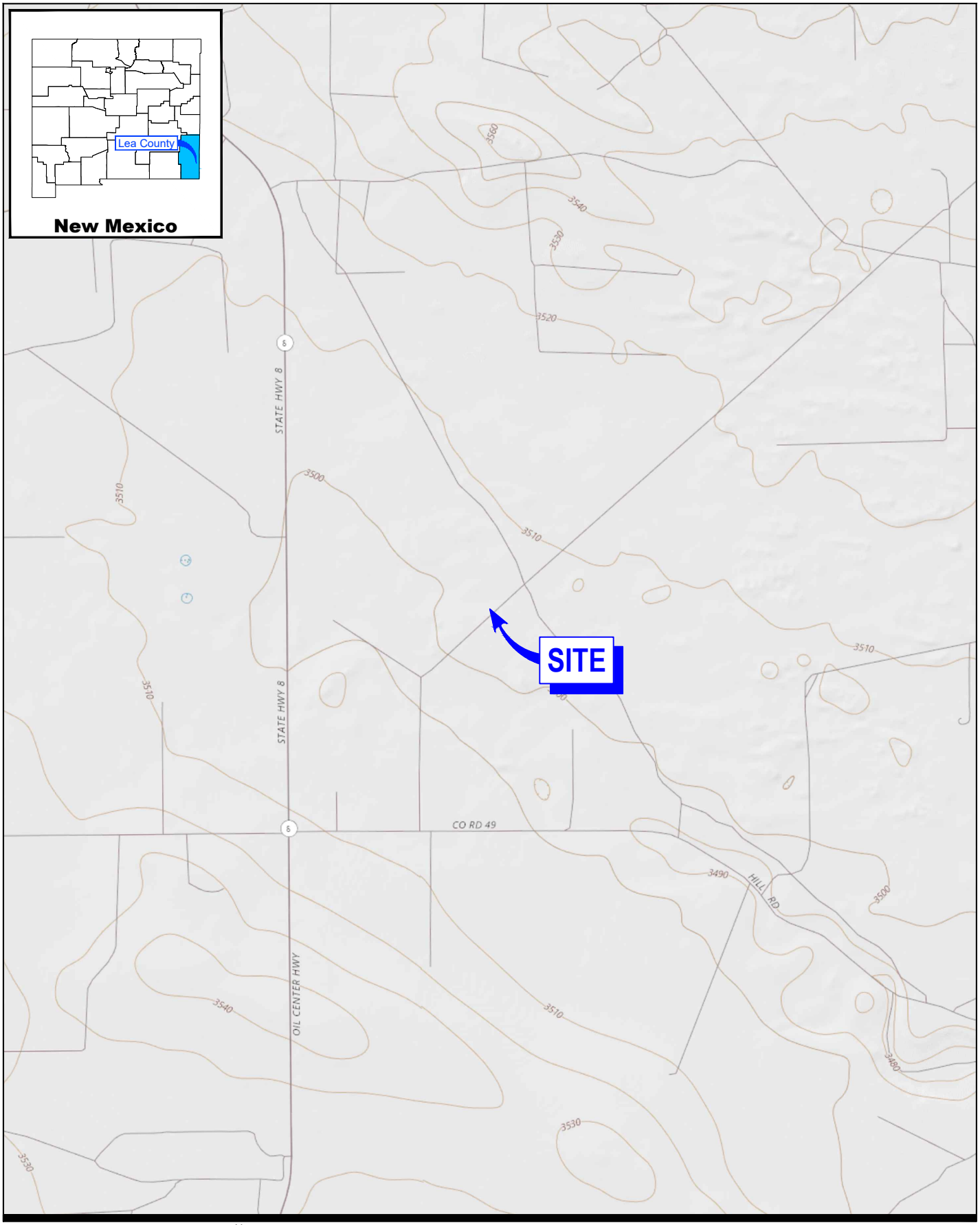
Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Chloride
NMWQCC Groundwater Standards		**0.005**	**1.0**	**0.7**	**0.62**	**250**
MW-1	12/4/2018	<0.0010	<0.0010	<0.0010	<0.0020	**1,900**
	12/4/2018	<0.0010	<0.0010	<0.0010	<0.0020	**1,800**
	12/13/2019	0.0010	<0.0010	<0.0010	<0.0020	**2,000**
	4/20/2020	**0.0052**	<0.0010	0.0018	<0.0015	**2,200**
	11/16/2020	<0.0010	<0.0010	<0.0010	<0.0015	**2,000**
	4/1/2021	<0.0010	<0.0010	<0.0010	<0.0015	**2,400**
	6/16/2021	<0.0010	<0.0010	<0.0010	<0.0015	**2,200**
	9/13/2021	<0.0010	<0.0010	<0.0010	<0.0015	**2,300**
	11/29/2021	<0.0010	<0.0010	<0.0010	<0.0015	**2,200**
	3/17/2022	<0.0010	<0.0010	<0.0010	<0.0015	**2,000**
	6/30/2022	<0.0010	<0.0010	<0.0010	<0.0015	**2,000**
	8/30/2022	<0.0010	<0.0010	<0.0010	<0.0015	**1,900**
	11/10/2022	<0.0010	<0.0010	<0.0010	<0.0015	**1,900**
	3/6/2023	<0.0010	<0.0010	<0.0010	<0.0015	**2,000**
	6/20/2023	<0.0010	<0.0010	<0.0010	<0.0010	**2,160**
	9/13/2023	<0.0010	<0.0010	<0.0010	<0.0030	**2,090**
	12/15/2023	<0.0010	<0.0010	<0.0010	<0.0030	**2,190**
MW-2	12/13/2019	<0.0010	<0.0010	<0.0010	<0.0020	**1,800**
	4/20/2020	<0.0010	<0.0010	<0.0010	<0.0015	**2,000**
	11/16/2020	<0.0010	<0.0010	<0.0010	<0.0015	**1,600**
	4/1/2021	<0.0010	<0.0010	<0.0010	<0.0015	**2,000**
	6/16/2021	<0.0010	<0.0010	<0.0010	<0.0015	**1,900**
	9/13/2021	<0.0010	<0.0010	<0.0010	<0.0015	**1,900**
	11/29/2021	<0.0010	<0.0010	<0.0010	<0.0015	**1,800**
	3/17/2022	<0.0010	<0.0010	<0.0010	<0.0015	**1,800**
	6/30/2022	<0.0010	<0.0010	<0.0010	<0.0015	**1,800**
	8/30/2022	<0.0010	<0.0010	<0.0010	<0.0015	**1,700**
	11/10/2022	<0.0010	<0.0010	<0.0010	<0.0015	**1,700**
	3/6/2023	<0.0010	<0.0010	<0.0010	<0.0015	**1,800**
	6/20/2023	<0.0010	<0.0010	<0.0010	<0.0010	**2,000**
	9/13/2023	<0.0010	<0.0010	<0.0010	<0.0030	**1,970**
	12/15/2023	<0.0010	<0.0010	<0.0010	<0.0030	**2,000**

Table 4

Summary of Groundwater Analytical Results
O-6 Pipeline Release
Lea County, New Mexico
ET Gathering & Processing LLC
NMOCD 1RP-5177

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Chloride
NMWQCC Groundwater Standards		**0.005**	**1.0**	**0.7**	**0.62**	**250**
MW-3	12/13/2019	<0.0010	<0.0010	<0.0010	<0.0020	**1,900**
	4/20/2020	**0.024**	0.058	0.012	0.021	**2,000**
	11/16/2020	<0.0010	<0.0010	<0.0010	<0.0020	**1,800**
	4/1/2021	<0.0010	<0.0010	<0.0010	<0.0015	**2,000**
	6/16/2021	<0.0010	<0.0010	<0.0010	<0.0015	**1,900**
	9/13/2021	<0.0010	<0.0010	<0.0010	<0.0015	**2,000**
	11/29/2021	<0.0010	<0.0010	<0.0010	<0.0015	**2,000**
	3/17/2022	<0.0010	<0.0010	<0.0010	<0.0015	**1,800**
	6/30/2022	<0.0010	<0.0010	<0.0010	<0.0015	**1,800**
	8/30/2022	<0.0010	<0.0010	<0.0010	<0.0015	**1,700**
	11/10/2022	<0.0010	<0.0010	<0.0010	<0.0015	**1,700**
	3/6/2023	<0.0010	<0.0010	<0.0010	<0.0015	**1,800**
	6/20/2023	<0.0010	<0.0010	<0.0010	<0.0010	**2,020**
	9/13/2023	<0.0010	<0.0010	<0.0010	<0.0030	**1,950**
	12/15/2023	<0.0010	<0.0010	<0.0010	<0.0030	**2,020**

Notes:
1) Analytical results are presented in milligrams per liter (mg/L)
2) NMWQCC = New Mexico Water Quality Control Commission
3) < - Analyte was not detected at or above the laboratory reporting limit.
4) Shaded/bolded results exceed their respective NMWQCC groundwater quality standard.



0 1000 2000 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
O-6 PIPELINE RELEASE
NMOCD 1RP-5177

Project No. **12603935**
Date **March 2024**

SITE LOCATION MAP

FIGURE 1

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\562\12603935\Digital_Design\ACAD\Figures\RPT002\12603935-GHD-00-00-RPT-EN-D101_DL-002.dwg

Data Source: USGS 7.5 Minute Quad "Hobbs SW and Monument South, New Mexico"
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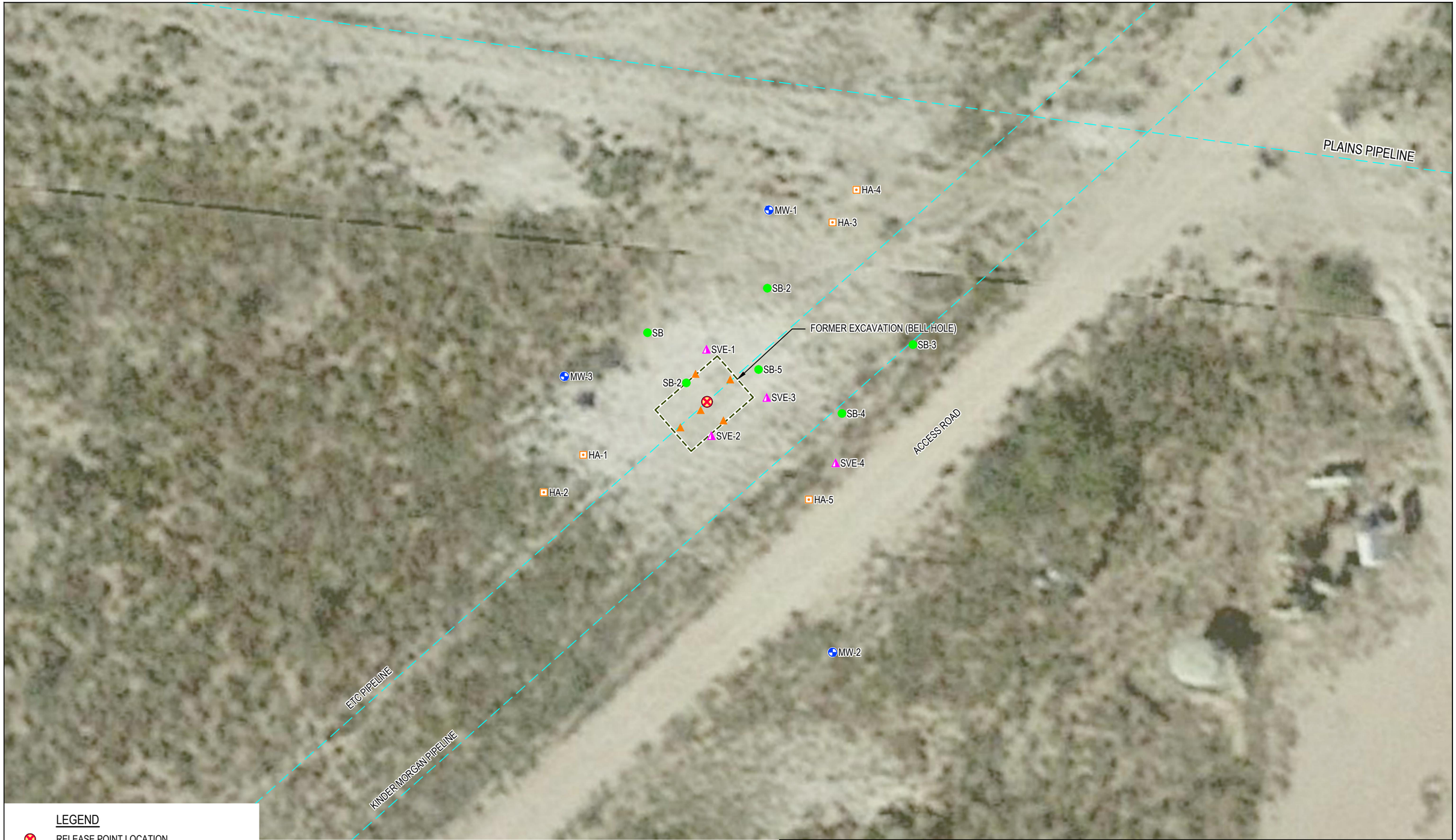


LEGEND

- RELEASE POINT LOCATION
- EXCAVATION SAMPLE LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- SOIL VAPOR EXTRACTION WELL LOCATION
- MONITORING WELL LOCATION
- FORMER EXCAVATION LIMITS (BELL HOLE)

0 10 20 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
O-6 PIPELINE RELEASE
NMOCD 1RP-5177

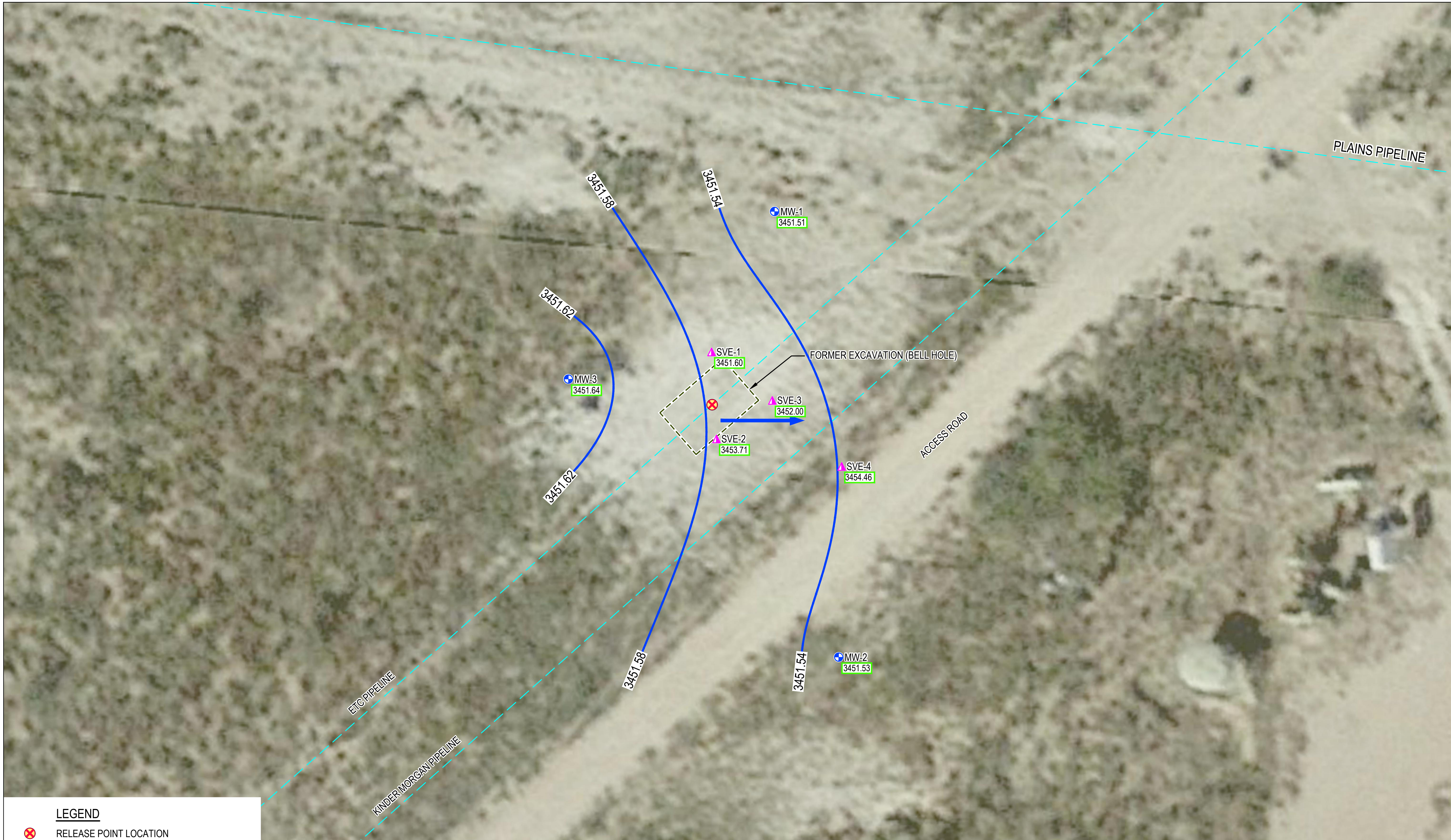
SITE DETAILS MAP

Project No. **12603935**
Date **July 2024**

FIGURE 2

Filename: \\ghdnefjohd\US\Albuquerque\Projects\56\12603935\Digital_Design\ACAD\Figures\RPT002\12603935-GHD-00-00-RPT-EN-D101_DL-002.dwg

Data Source: Image © 2018 Google - Imagery Date: November 2, 2017
Lat/Long: 32.545974° North, 103.246424° West



LEGEND

- RELEASE POINT LOCATION
- SOIL VAPOR EXTRACTION WELL LOCATION
- MONITORING WELL LOCATION
- FORMER EXCAVATION LIMITS (BELL HOLE)
- GROUNDWATER ELEVATION CONTOUR (INTERVAL = 0.04 ft)
- 3451.64 GROUNDWATER ELEVATION (ft)
- DIRECTION OF GROUNDWATER FLOW

NOTE:

1. THE SVE WELLS ARE NOT SCREENED IN THE SAME GROUNDWATER ZONE AS THE MONITORING WELLS AT THE SITE AND ARE THEREFORE NOT UTILIZED IN GENERATING THE POTENTIOMETRIC SURFACE.

0 10 20 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
O-6 PIPELINE RELEASE
NMOCD 1RP-5177

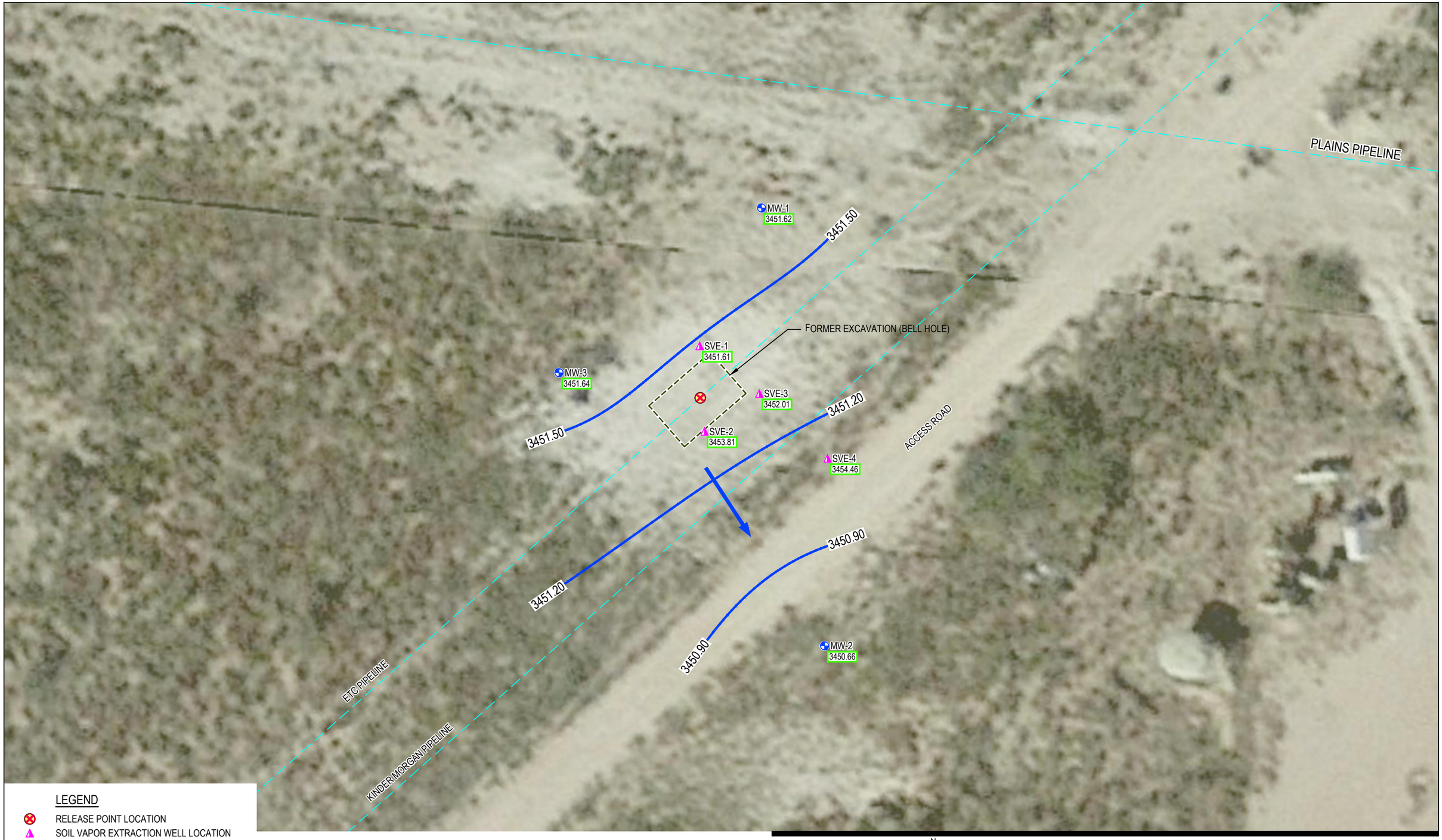
POTENTIOMETRIC SURFACE MAP
(MARCH 2023)

Project No. 12603935
Date July 2024

FIGURE 3

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\562\12603935\Digital_Design\ACAD\Figures\RPT002\12603935-GHD-00-00-RPT-EN-D101_DL-002.dwg

Data Source: Image © 2018 Google - Imagery Date: November 2, 2017
Lat/Long: 32.545974° North, 103.246424° West



LEGEND

- RELEASE POINT LOCATION
- SOIL VAPOR EXTRACTION WELL LOCATION
- MONITORING WELL LOCATION
- FORMER EXCAVATION LIMITS (BELL HOLE)
- GROUNDWATER ELEVATION CONTOUR (INTERVAL = 0.30 ft)
- 3451.64 GROUNDWATER ELEVATION (ft)
- DIRECTION OF GROUNDWATER FLOW

NOTE:

1. THE SVE WELLS ARE NOT SCREENED IN THE SAME GROUNDWATER ZONE AS THE MONITORING WELLS AT THE SITE AND ARE THEREFORE NOT UTILIZED IN GENERATING THE POTENTIOMETRIC SURFACE.

0 10 20 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
O-6 PIPELINE RELEASE
NMOCD 1RP-5177

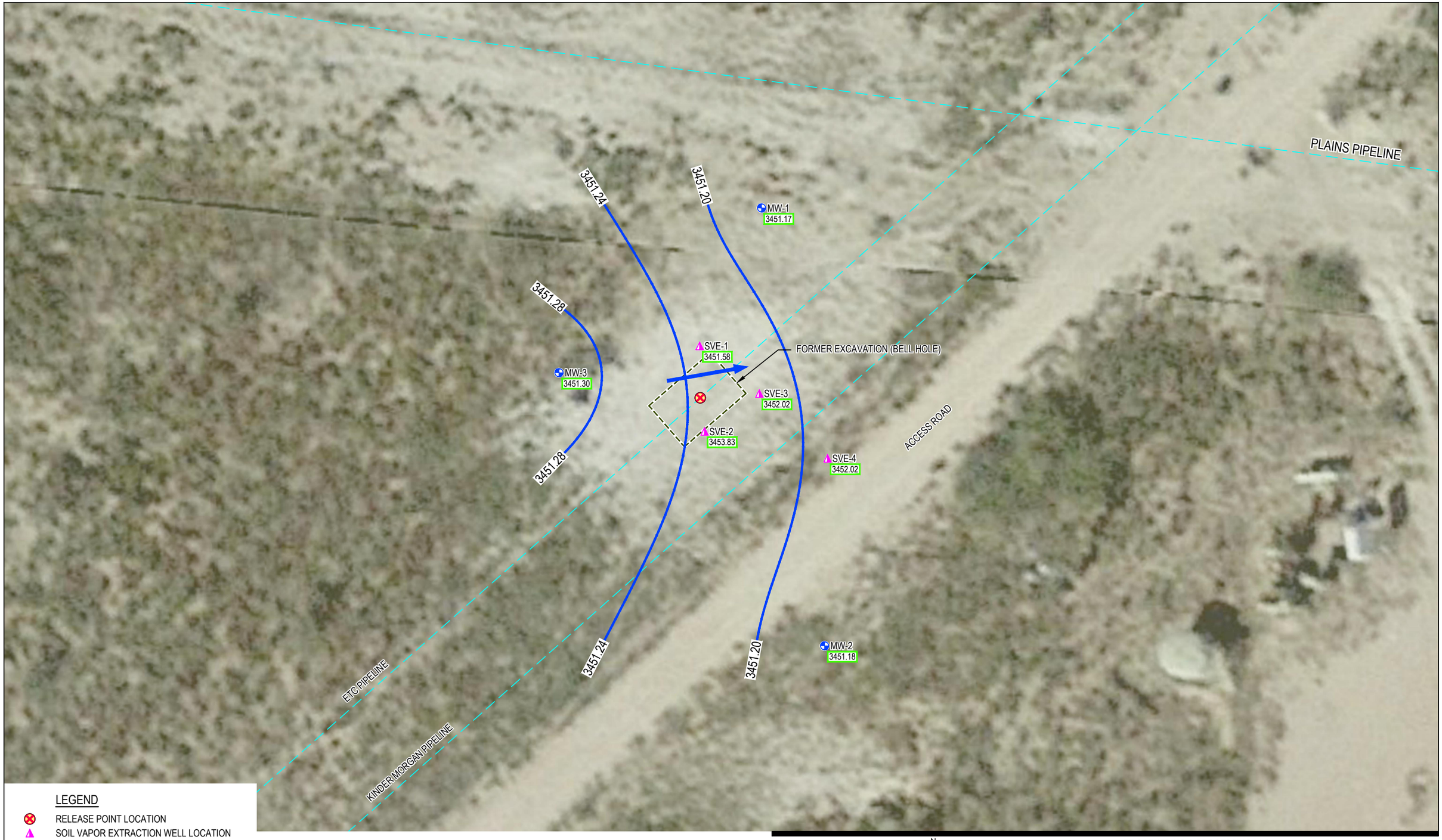
POTENTIOMETRIC SURFACE MAP
(JUNE 2023)

Project No. 12603935
Date March 2024

FIGURE 4

Filename: \\ghdnetfshdf\US\Albuquerque\Projects\56\12603935\Digital Design\ACAD\Figures\RPT002\12603935-GHD-00-00-RPT-EN-D101_DL-002.dwg

Data Source: Image © 2018 Google - Imagery Date: November 2, 2017
Lat/Long: 32.545974° North, 103.246424° West



LEGEND

- RELEASE POINT LOCATION
- SOIL VAPOR EXTRACTION WELL LOCATION
- MONITORING WELL LOCATION
- FORMER EXCAVATION LIMITS (BELL HOLE)
- GROUNDWATER ELEVATION CONTOUR (INTERVAL = 0.04 ft)
- 3451.30 GROUNDWATER ELEVATION (ft)
- DIRECTION OF GROUNDWATER FLOW

NOTE:

1. THE SVE WELLS ARE NOT SCREENED IN THE SAME GROUNDWATER ZONE AS THE MONITORING WELLS AT THE SITE AND ARE THEREFORE NOT UTILIZED IN GENERATING THE POTENTIOMETRIC SURFACE.

0 10 20 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
O-6 PIPELINE RELEASE
NMOCD 1RP-5177

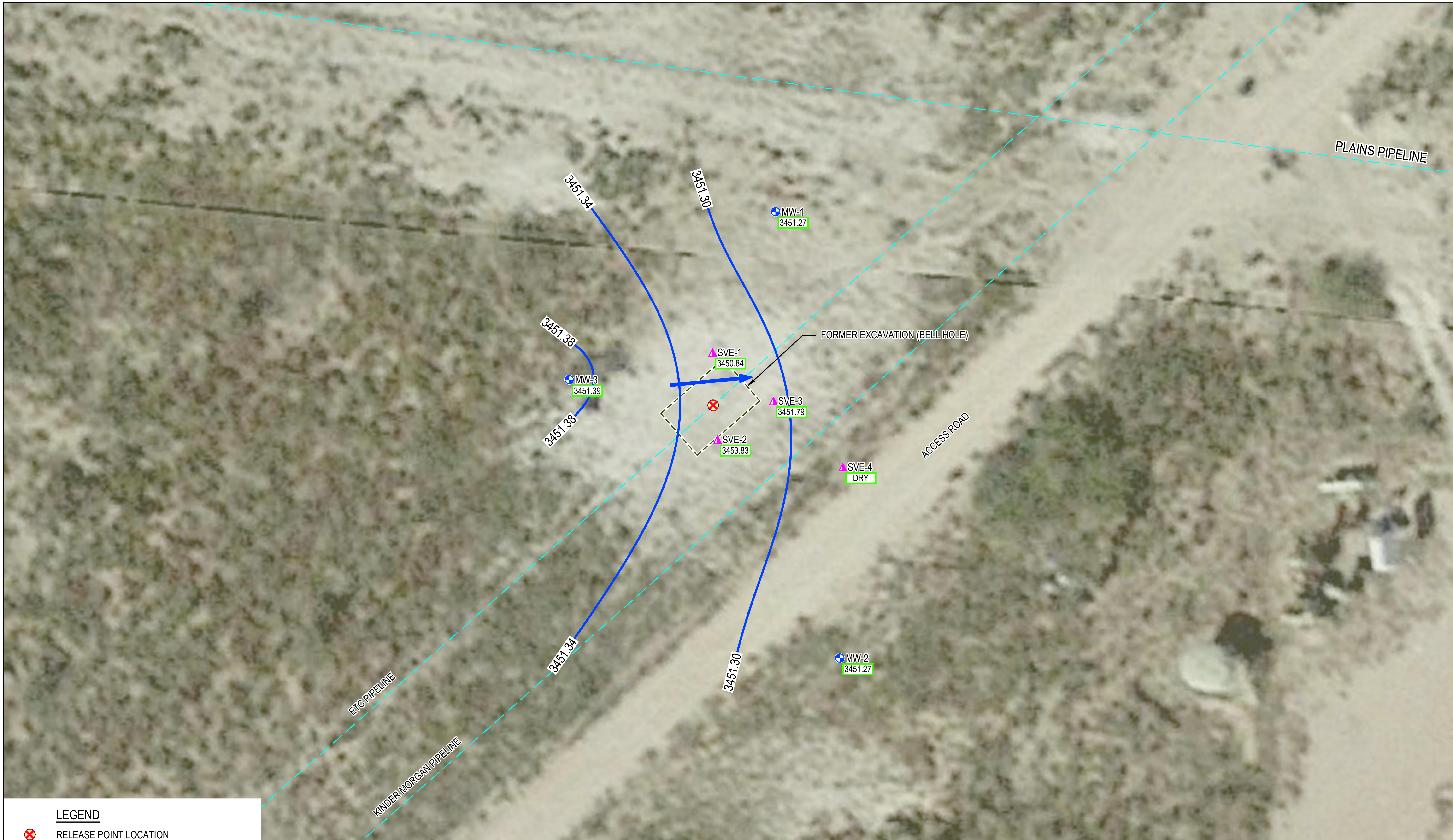
POTENTIOMETRIC SURFACE MAP
(SEPTEMBER 2023)

Project No. 12603935
Date July 2024

FIGURE 5

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\562\12603935\Digital Design\ACAD\Figures\RPT002\12603935-GHD-00-00-RPT-EN-D101_DL-002.dwg

Data Source: Image © 2018 Google - Imagery Date: November 2, 2017
Lat/Long: 32.545974° North, 103.246424° West



LEGEND

- RELEASE POINT LOCATION
- SOIL VAPOR EXTRACTION WELL LOCATION
- MONITORING WELL LOCATION
- FORMER EXCAVATION LIMITS (BELL HOLE)
- GROUNDWATER ELEVATION CONTOUR (INTERVAL = 0.04 ft)
- 3451.39 GROUNDWATER ELEVATION (ft)
- DIRECTION OF GROUNDWATER FLOW

NOTE:

1. THE SVE WELLS ARE NOT SCREENED IN THE SAME GROUNDWATER ZONE AS THE MONITORING WELLS AT THE SITE AND ARE THEREFORE NOT UTILIZED IN GENERATING THE POTENTIOMETRIC SURFACE.

0 10 20 ft

Coordinate System:
NAD 1983 (2011) StatePlane-New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
O-6 PIPELINE RELEASE
NMOCD 1RP-5177

POTENTIOMETRIC SURFACE MAP
(DECEMBER 2023)

Project No. 12603935
Date July 2024

FIGURE 6

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\562\12603935\Digital_Design\ACAD\Figures\RPT002\12603935-GHD-00-00-RPT-EN-D101_DL-002.dwg

Data Source: Image © 2018 Google - Imagery Date: November 2, 2017
Lat/Long: 32.545974° North, 103.246424° West

MW-1	3/6/2023	6/20/2023	9/13/2023	10/23/2023	12/15/2023
Chloride	**2000**	**2160**	**2090**	**2100**	**2190**

MW-3	3/6/2023	6/20/2023	9/13/2023	10/23/2023	12/15/2023
Chloride	**1800**	**2020**	**1950**	**1970**	**2020**

MW-2	3/6/2023	6/20/2023	9/13/2023	10/23/2023	12/15/2023
Chloride	**1800**	**2000**	**1970**	**1880**	**2000**

LEGEND

- RELEASE POINT LOCATION
- SOIL VAPOR EXTRACTION WELL LOCATION
- MONITORING WELL LOCATION
- FORMER EXCAVATION LIMITS (BELL HOLE)
- < ANALYTE WAS NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT

NOTES:

1. GROUNDWATER CONCENTRATIONS PRESENTED IN MILLIGRAMS PER LITER (mg/L).
2. HIGHLIGHTED CELLS EXCEED THE APPLICABLE NMWQCC REGULATORY LIMIT.
3. SHADED CELLS INDICATE CONCENTRATION EXCEEDS ITS RESPECTIVE NMWQCC STANDARD.

0 10 20 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
O-6 PIPELINE RELEASE
NMOCD 1RP-5177

COC CONCENTRATIONS IN GROUNDWATER MAP (2023)

Project No. 12603935
Date March 2024

FIGURE 7

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\562\12603935\Digital_Design\ACAD\Figures\RPT002\12603935-GHD-00-00-RPT-EN-D101_DL-002.dwg

Data Source: Image © 2018 Google - Imagery Date: November 2, 2017
Lat/Long: 32.545974° North, 103.246424° West

MW-1 11/28/2018			
Depth	20'	50'	53'
Benzene	<0.029	<0.023	<0.024
BTEX	<0.215	<0.207	<0.216
TPH	<63.6	<63.3	<62.4
GRO+DRO	<14.6	<14.3	<14.4
Chloride	120	290	230

HA-4 11/27/2018		
Depth	1'	3'
Benzene	<0.024	<0.025
BTEX	<0.215	<0.221
TPH	<64.7	<63.6
GRO+DRO	<14.7	<14.6
Chloride	<30	<30

HA-3 11/27/2018		
Depth	1'	3'
Benzene	<0.024	<0.025
BTEX	<0.215	<0.221
TPH	<64.7	<63.6
GRO+DRO	<14.7	<14.6
Chloride	<30	<30

SVE-1 11/27/2018				
Depth	15'	20'	35'	51'
Benzene	<0.12	2.1	<0.49	<0.023
BTEX	7.98	157.1	56.69	0.569
TPH	1,520	1,900	2,700	492
GRO+DRO	650	3,300	2,470	132
Chloride	160	790	250	180

SB-5 10/23/2023	
Depth	15'
BTEX	<0.0002
TPH	154
GRO+DRO	140
Chloride	47.2

SB-2* 11/27/2018			
Depth	5'	10'	20'
Benzene	<0.024	<0.024	<0.024
BTEX	<0.219	<0.217	<0.217
TPH	<63.6	<62.5	<64.8
GRO+DRO	<14.6	<14.5	<14.8
Chloride	57	52	150

SB 05/15/2018								
Depth	5'	10'	15'	20'	25'	30'	35'	40'
Benzene	<0.023	--	<0.023	--	--	--	--	<0.024
BTEX	<0.208	--	<0.207	--	--	--	--	<0.22
TPH	63.4	--	63.5	--	--	--	--	<64.9
GRO+DRO	<14.4	--	--	--	--	--	--	<14.9
Chloride	<30	<30	190	280	370	280	280	230

SB-2 07/30/2018					
Depth	20'	25'	30'	35'	40'
Benzene	4.23	2.21	--	--	1.03
BTEX	222	107	--	--	90.4
TPH	2,794	1,527	--	--	1,406
GRO+DRO	2,794	1,527	--	--	1,406
Chloride	800	688	320	320	320

SB-3 10/23/2023	
Depth	25'
BTEX	<0.0059
TPH	190
GRO+DRO	70
Chloride	758

East Wall 03/28/2018	
Depth	4'
Benzene	<2.00
BTEX	70.4
TPH	6,950
GRO+DRO	5,350
Chloride	912

MW-3 12/12/2019		
Depth	20-22'	50-52'
Benzene	<0.024	<0.023
BTEX	<0.215	<0.207
TPH	<62.3	16
GRO+DRO	<14.3	16
Chloride	<61	290

SB-4 10/23/2023	
Depth	7'
BTEX	<0.0053
TPH	11.5
GRO+DRO	6.4
Chloride	9.41

SVE-3 12/04/2019			
Depth	10-12'	47-49'	52'
Benzene	<0.25	18	<0.12
BTEX	17.52	568	17.4
TPH	2,460	13,100	530
GRO+DRO	1,260	10,400	390
Chloride	340	140	170

West Wall 03/28/2018	
Depth	4'
Benzene	<0.300
BTEX	<0.050
TPH	69.4
GRO+DRO	69.4
Chloride	752

South Wall 03/28/2018	
Depth	4'
Benzene	<0.300
BTEX	<0.050
TPH	56.1
GRO+DRO	26.9
Chloride	1,010

HA-1 11/27/2018		
Depth	1'	3'
Benzene	<0.025	<0.024
BTEX	<0.225	<0.219
TPH	<63.8	<68.9
GRO+DRO	<14.8	<18.9
Chloride	<30	<30

SVE-4 12/12/2019		
Depth	45-47'	50-51'
Benzene	<0.023	<0.024
BTEX	<0.211	0.53
TPH	<60.7	166
GRO+DRO	<13.7	56
Chloride	250	250

HA-2 11/27/2018		
Depth	1'	3'
Benzene	<0.025	<0.023
BTEX	<0.222	<0.208
TPH	<63.6	<63.4
GRO+DRO	<14.6	<14.4
Chloride	<30	<30

North Wall 03/28/2018	
Depth	4'
Benzene	<2.00
BTEX	51.0
TPH	3,339
GRO+DRO	2,349
Chloride	5,840

HA-5 11/29/2018		
Depth	5'	8'
Benzene	<0.024	<0.024
BTEX	<0.213	<0.219
TPH	<64.7	<63.7
GRO+DRO	<14.7	<14.7
Chloride	<30	<30

Vertical		
Date	03/28/2018	04/03/2018
Depth	12'	20'
Benzene	18.1	21.1
BTEX	652	877
TPH	18,190	16,390
GRO+DRO	16,370	16,390
Chloride	256	432

MW-2 12/13/2019		
Depth	45-47'	55'
Benzene	<0.025	<0.023
BTEX	<0.224	<0.208
TPH	173	16
GRO+DRO	43	16
Chloride	330	140

SVE-2			
Depth	12/03/2019	12/04/2019	
Depth	10-12'	45-47'	49'
Benzene	<0.46	1.6	0.23
BTEX	38.9	87.6	26.93
TPH	4,900	2,700	850
GRO+DRO	2,800	2,120	640
Chloride	190	240	270

PLAINS PIPELINE

FORMER EXCAVATION (BELL HOLE)

ACCESS ROAD

ETC PIPELINE

KINDER MORGAN PIPELINE

MW-1 MW-2 MW-3 HA-1 HA-2 HA-3 HA-4 HA-5 SB SB-2 SB-3 SB-4 SB-5 SVE-1 SVE-2 SVE-3 SVE-4

LEGEND

- RELEASE POINT LOCATION
- EXCAVATION SAMPLE LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- SOIL VAPOR EXTRACTION WELL LOCATION
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- FORMER EXCAVATION LIMITS (BELL HOLE)
- BTEX — BENZENE, TOLUENE, ETHYLBENZENE AND XYLENES CONCENTRATION
- TPH — TOTAL PETROLEUM HYDROCARBONS - GAS RANGE, DIESEL RANGE, AND OIL RANGE CONCENTRATION
- GRO+DRO — GASOLINE RANGE ORGANICS + DIESEL RANGE ORGANICS
- -- — NOT ANALYZED

NOTES:

1. SOIL CONCENTRATIONS PRESENTED IN MILLIGRAMS PER KILOGRAM (mg/kg).
2. SHADED CELLS INDICATED EXCEEDANCE OF THE NMAC CLOSURE CRITERIA FOR THE SITE.

0 ## #####

Coordinate System: NAD 1983 (2011) StatePlane- New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
O-6 PIPELINE RELEASE
NMOCD 1RP-5177

COC CONCENTRATIONS IN SOIL MAP (2023)

Project No. 12603935
Date June 2024

FIGURE 8

Filename: \\ghdnefiohd\US\Albuquerque\Projects\56\12603935\Digital_Design\ACAD\Figures\RPT002\12603935-GHD-00-00-RPT-EN-D102_DL-002.dwg

Data Source: Image © 2018 Google - Imagery Date: November 2, 2017
Lat/Long: 32.545974° North, 103.246424° West

Appendices

Appendix A

Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 16, 2023

Blair Owen
GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX

RE: 0 6 OrderNo.: 2303429

Dear Blair Owen:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/8/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2303429**
Date Reported: **3/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** MW-1
Project: 0 6 **Collection Date:** 3/6/2023 4:00:00 PM
Lab ID: 2303429-001 **Matrix:** GROUNDWA **Received Date:** 3/8/2023 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	2000	100	*	mg/L	200	3/14/2023 12:57:03 PM	R95273
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	3/13/2023 11:28:00 PM	SL95226
Toluene	ND	1.0		µg/L	1	3/13/2023 11:28:00 PM	SL95226
Ethylbenzene	ND	1.0		µg/L	1	3/13/2023 11:28:00 PM	SL95226
Xylenes, Total	ND	1.5		µg/L	1	3/13/2023 11:28:00 PM	SL95226
Surr: 1,2-Dichloroethane-d4	95.8	70-130		%Rec	1	3/13/2023 11:28:00 PM	SL95226
Surr: 4-Bromofluorobenzene	95.5	70-130		%Rec	1	3/13/2023 11:28:00 PM	SL95226
Surr: Dibromofluoromethane	95.0	70-130		%Rec	1	3/13/2023 11:28:00 PM	SL95226
Surr: Toluene-d8	100	70-130		%Rec	1	3/13/2023 11:28:00 PM	SL95226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303429**
Date Reported: **3/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** MW-3
Project: 0 6 **Collection Date:** 3/6/2023 4:20:00 PM
Lab ID: 2303429-002 **Matrix:** GROUNDWA **Received Date:** 3/8/2023 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	1800	100	*	mg/L	200	3/14/2023 1:09:54 PM	R95273
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	3/14/2023 12:37:00 AM	SL95226
Toluene	ND	1.0		µg/L	1	3/14/2023 12:37:00 AM	SL95226
Ethylbenzene	ND	1.0		µg/L	1	3/14/2023 12:37:00 AM	SL95226
Xylenes, Total	ND	1.5		µg/L	1	3/14/2023 12:37:00 AM	SL95226
Surr: 1,2-Dichloroethane-d4	92.6	70-130		%Rec	1	3/14/2023 12:37:00 AM	SL95226
Surr: 4-Bromofluorobenzene	94.9	70-130		%Rec	1	3/14/2023 12:37:00 AM	SL95226
Surr: Dibromofluoromethane	93.2	70-130		%Rec	1	3/14/2023 12:37:00 AM	SL95226
Surr: Toluene-d8	101	70-130		%Rec	1	3/14/2023 12:37:00 AM	SL95226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303429**
Date Reported: **3/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** MW-2
Project: 0 6 **Collection Date:** 3/6/2023 4:40:00 PM
Lab ID: 2303429-003 **Matrix:** GROUNDWA **Received Date:** 3/8/2023 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	1800	100	*	mg/L	200	3/14/2023 1:22:47 PM	R95273
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	3/14/2023 1:00:00 AM	SL95226
Toluene	ND	1.0		µg/L	1	3/14/2023 1:00:00 AM	SL95226
Ethylbenzene	ND	1.0		µg/L	1	3/14/2023 1:00:00 AM	SL95226
Xylenes, Total	ND	1.5		µg/L	1	3/14/2023 1:00:00 AM	SL95226
Surr: 1,2-Dichloroethane-d4	92.6	70-130		%Rec	1	3/14/2023 1:00:00 AM	SL95226
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	3/14/2023 1:00:00 AM	SL95226
Surr: Dibromofluoromethane	91.5	70-130		%Rec	1	3/14/2023 1:00:00 AM	SL95226
Surr: Toluene-d8	101	70-130		%Rec	1	3/14/2023 1:00:00 AM	SL95226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303429**
Date Reported: **3/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** DUP01
Project: 0 6 **Collection Date:** 3/6/2023
Lab ID: 2303429-004 **Matrix:** GROUNDWA **Received Date:** 3/8/2023 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	1900	100	*	mg/L	200	3/14/2023 1:35:38 PM	R95273
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	3/14/2023 1:23:00 AM	SL95226
Toluene	ND	1.0		µg/L	1	3/14/2023 1:23:00 AM	SL95226
Ethylbenzene	ND	1.0		µg/L	1	3/14/2023 1:23:00 AM	SL95226
Xylenes, Total	ND	1.5		µg/L	1	3/14/2023 1:23:00 AM	SL95226
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%Rec	1	3/14/2023 1:23:00 AM	SL95226
Surr: 4-Bromofluorobenzene	97.8	70-130		%Rec	1	3/14/2023 1:23:00 AM	SL95226
Surr: Dibromofluoromethane	91.9	70-130		%Rec	1	3/14/2023 1:23:00 AM	SL95226
Surr: Toluene-d8	99.7	70-130		%Rec	1	3/14/2023 1:23:00 AM	SL95226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303429**
Date Reported: **3/16/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** Trip Blank
Project: 0 6 **Collection Date:**
Lab ID: 2303429-005 **Matrix:** TRIP BLANK **Received Date:** 3/8/2023 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
Toluene	ND	1.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
Ethylbenzene	ND	1.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
Naphthalene	ND	2.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
1-Methylnaphthalene	ND	4.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
2-Methylnaphthalene	ND	4.0		µg/L	1	3/14/2023 1:47:00 AM	SL95226
Xylenes, Total	ND	1.5		µg/L	1	3/14/2023 1:47:00 AM	SL95226
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%Rec	1	3/14/2023 1:47:00 AM	SL95226
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	1	3/14/2023 1:47:00 AM	SL95226
Surr: Dibromofluoromethane	92.1	70-130		%Rec	1	3/14/2023 1:47:00 AM	SL95226
Surr: Toluene-d8	100	70-130		%Rec	1	3/14/2023 1:47:00 AM	SL95226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303429**

16-Mar-23

Client: GHD

Project: 0 6

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R95273**	RunNo: **95273**							
Prep Date:	Analysis Date: **3/14/2023**	SeqNo: **3445817**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R95273**	RunNo: **95273**							
Prep Date:	Analysis Date: **3/14/2023**	SeqNo: **3445818**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303429**

16-Mar-23

Client: GHD

Project: 0 6

Sample ID: **2303429-001ams**	SampType: **MS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **MW-1**	Batch ID: **SL95226**	RunNo: **95226**
Prep Date:	Analysis Date: **3/13/2023**	SeqNo: **3444170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.5	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.1	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.8	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.7	70	130			
Surr: Toluene-d8	10		10.00		99.9	70	130			

Sample ID: **2303429-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **MW-1**	Batch ID: **SL95226**	RunNo: **95226**
Prep Date:	Analysis Date: **3/14/2023**	SeqNo: **3444171** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.4	70	130	3.49	20	
Toluene	20	1.0	20.00	0	99.0	70	130	3.57	20	
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.5		10.00		95.4	70	130	0	0	
Surr: Dibromofluoromethane	9.6		10.00		95.6	70	130	0	0	
Surr: Toluene-d8	10		10.00		99.7	70	130	0	0	

Sample ID: **100ng lcs 2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **SL95226**	RunNo: **95226**
Prep Date:	Analysis Date: **3/13/2023**	SeqNo: **3444190** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.4	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.4	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.1	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID: **mb 2**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **SL95226**	RunNo: **95226**
Prep Date:	Analysis Date: **3/13/2023**	SeqNo: **3444191** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303429**
16-Mar-23

Client: GHD
Project: 0 6

Sample ID: **mb 2**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **SL95226**	RunNo: **95226**
Prep Date:	Analysis Date: **3/13/2023**	SeqNo: **3444191** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.5	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.5	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.9	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: GHD | Work Order Number: 2303429 | RcptNo: 1

Received By: Juan Rojas 3/8/2023 10:20:00 AM

Completed By: Sean Livingston 3/8/2023 11:19:23 AM

Reviewed By: JR 3/8/23

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Client		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JR 3-8-23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Not Present	Morty		

Chain-of-Custody Record

Client: SHD

Mailing Address: 6121 Indian School Rd.
ABQ, NM, 87110

Phone #: 505-934-0902

email or Fax#: Simon.Kozik@shd.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: O-6

Project #: 12603935

Project Manager: Blair Owen

Sampler: SK

On Ice: ☑ Yes ☐ No

# of Coolers: 1 Morty

Cooler Temp(including CF): 1.8-0.1=1.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2303429	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) BTEX	8270 (Semi-VOA)	Total Coliform (Present/Absent)
3/6	1600	GW	MW-1	3 VOA 40ml	HCl/none	001							X	X		
3/6	1626	GW	MW-3	3 VOA 40ml	HCl/none	002							X	X		
3/6	1640	GW	MW-2	3 VOA 40ml	HCl/none	003							X	X		
3/6	—	GW	DUP01	3 VOA 40ml	HCl/none	004							X	X		
			TRIP Blank per sample bottle													
			3-8-23													

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
3/8	1020				3/8/23	10:20
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 28, 2023

Blair Owen
GHD
11451 Katy Fwy
Suite 400
Houston, TX 77079

Work Order: **HS23061537**

Laboratory Results for: **12603935 - SU O-6 2023**

Dear Blair Owen,

ALS Environmental received 5 sample(s) on Jun 22, 2023 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: JUMOKE.LAWAL
James Guin

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
Work Order: HS23061537

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23061537-01	12603935_TB01	Water	CG-041923-619	20-Jun-2023 00:00	22-Jun-2023 09:25	☐
HS23061537-02	MW-1-20230620	Water		20-Jun-2023 15:20	22-Jun-2023 09:25	☐
HS23061537-03	MW-2-20230620	Water		20-Jun-2023 16:30	22-Jun-2023 09:25	☐
HS23061537-04	MW-3-20230620	Water		20-Jun-2023 16:00	22-Jun-2023 09:25	☐
HS23061537-05	DUP01	Water		20-Jun-2023 00:00	22-Jun-2023 09:25	☐

ALS Houston, US Date: 28-Jun-23

Client: GHD **CASE NARRATIVE**
Project: 12603935 - SU O-6 2023
Work Order: HS23061537

GCMS Volatiles by Method SW8260

Batch ID: R439798

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300

Batch ID: R440055

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: 12603935_TB01
Collection Date: 20-Jun-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23061537
Lab ID:HS23061537-01
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: FT
Benzene		U	0.0010	mg/L	1	24-Jun-2023 00:28
Ethylbenzene		U	0.0010	mg/L	1	24-Jun-2023 00:28
Toluene		U	0.0010	mg/L	1	24-Jun-2023 00:28
Xylenes, Total		U	0.0010	mg/L	1	24-Jun-2023 00:28
Surr: 1,2-Dichloroethane-d4	*112*		*70-126*	*%REC*	*1*	*24-Jun-2023 00:28*
Surr: 4-Bromofluorobenzene	*94.7*		*77-113*	*%REC*	*1*	*24-Jun-2023 00:28*
Surr: Dibromofluoromethane	*107*		*77-123*	*%REC*	*1*	*24-Jun-2023 00:28*
Surr: Toluene-d8	*102*		*82-127*	*%REC*	*1*	*24-Jun-2023 00:28*

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

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: MW-1-20230620
Collection Date: 20-Jun-2023 15:20

ANALYTICAL REPORT
WorkOrder:HS23061537
Lab ID:HS23061537-02
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: FT
Benzene		U	0.0010	mg/L	1	24-Jun-2023 06:55
Ethylbenzene		U	0.0010	mg/L	1	24-Jun-2023 06:55
Toluene		U	0.0010	mg/L	1	24-Jun-2023 06:55
Xylenes, Total		U	0.0010	mg/L	1	24-Jun-2023 06:55
Surr: 1,2-Dichloroethane-d4	*110*		*70-126*	*%REC*	*1*	*24-Jun-2023 06:55*
Surr: 4-Bromofluorobenzene	*94.3*		*77-113*	*%REC*	*1*	*24-Jun-2023 06:55*
Surr: Dibromofluoromethane	*108*		*77-123*	*%REC*	*1*	*24-Jun-2023 06:55*
Surr: Toluene-d8	*103*		*82-127*	*%REC*	*1*	*24-Jun-2023 06:55*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**2,160**		**25.0**	**mg/L**	50	27-Jun-2023 18:36

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

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: MW-2-20230620
Collection Date: 20-Jun-2023 16:30

ANALYTICAL REPORT
WorkOrder:HS23061537
Lab ID:HS23061537-03
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: FT
Benzene		U	0.0010	mg/L	1	24-Jun-2023 07:18
Ethylbenzene		U	0.0010	mg/L	1	24-Jun-2023 07:18
Toluene		U	0.0010	mg/L	1	24-Jun-2023 07:18
Xylenes, Total		U	0.0010	mg/L	1	24-Jun-2023 07:18
Surr: 1,2-Dichloroethane-d4	*112*		*70-126*	*%REC*	*1*	*24-Jun-2023 07:18*
Surr: 4-Bromofluorobenzene	*97.2*		*77-113*	*%REC*	*1*	*24-Jun-2023 07:18*
Surr: Dibromofluoromethane	*107*		*77-123*	*%REC*	*1*	*24-Jun-2023 07:18*
Surr: Toluene-d8	*102*		*82-127*	*%REC*	*1*	*24-Jun-2023 07:18*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**2,000**		**25.0**	**mg/L**	50	27-Jun-2023 18:42

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

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: MW-3-20230620
Collection Date: 20-Jun-2023 16:00

ANALYTICAL REPORT
WorkOrder:HS23061537
Lab ID:HS23061537-04
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: FT
Benzene		U	0.0010	mg/L	1	24-Jun-2023 07:41
Ethylbenzene		U	0.0010	mg/L	1	24-Jun-2023 07:41
Toluene		U	0.0010	mg/L	1	24-Jun-2023 07:41
Xylenes, Total		U	0.0010	mg/L	1	24-Jun-2023 07:41
Surr: 1,2-Dichloroethane-d4	*112*		*70-126*	*%REC*	*1*	*24-Jun-2023 07:41*
Surr: 4-Bromofluorobenzene	*96.3*		*77-113*	*%REC*	*1*	*24-Jun-2023 07:41*
Surr: Dibromofluoromethane	*109*		*77-123*	*%REC*	*1*	*24-Jun-2023 07:41*
Surr: Toluene-d8	*102*		*82-127*	*%REC*	*1*	*24-Jun-2023 07:41*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**2,020**		**25.0**	**mg/L**	50	27-Jun-2023 19:16

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

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: DUP01
Collection Date: 20-Jun-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23061537
Lab ID:HS23061537-05
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: FT
Benzene		U	0.0010	mg/L	1	24-Jun-2023 08:04
Ethylbenzene		U	0.0010	mg/L	1	24-Jun-2023 08:04
Toluene		U	0.0010	mg/L	1	24-Jun-2023 08:04
Xylenes, Total		U	0.0010	mg/L	1	24-Jun-2023 08:04
Surr: 1,2-Dichloroethane-d4	*114*		*70-126*	*%REC*	*1*	*24-Jun-2023 08:04*
Surr: 4-Bromofluorobenzene	*95.3*		*77-113*	*%REC*	*1*	*24-Jun-2023 08:04*
Surr: Dibromofluoromethane	*108*		*77-123*	*%REC*	*1*	*24-Jun-2023 08:04*
Surr: Toluene-d8	*99.5*		*82-127*	*%REC*	*1*	*24-Jun-2023 08:04*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**2,150**		**25.0**	**mg/L**	50	27-Jun-2023 19:22

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

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23061537

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R439798 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** Water	
HS23061537-01	12603935_TB01	20 Jun 2023 00:00			24 Jun 2023 00:28	1
HS23061537-02	MW-1-20230620	20 Jun 2023 15:20			24 Jun 2023 06:55	1
HS23061537-03	MW-2-20230620	20 Jun 2023 16:30			24 Jun 2023 07:18	1
HS23061537-04	MW-3-20230620	20 Jun 2023 16:00			24 Jun 2023 07:41	1
HS23061537-05	DUP01	20 Jun 2023 00:00			24 Jun 2023 08:04	1
Batch ID: R440055 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS23061537-02	MW-1-20230620	20 Jun 2023 15:20			27 Jun 2023 18:36	50
HS23061537-03	MW-2-20230620	20 Jun 2023 16:30			27 Jun 2023 18:42	50
HS23061537-04	MW-3-20230620	20 Jun 2023 16:00			27 Jun 2023 19:16	50
HS23061537-05	DUP01	20 Jun 2023 00:00			27 Jun 2023 19:22	50

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23061537

QC BATCH REPORT

Batch ID: R439798 (0) **Instrument: VOA4** **Method: LOW LEVEL VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKW-230623** Units: **ug/L** Analysis Date: **24-Jun-2023 00:05**
Client ID: Run ID: **VOA4_439798** SeqNo: **7383421** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	1.0								
Surr: 1,2-Dichloroethane-d4	*55.34*	*1.0*	*50*	*0*	*111*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*48.12*	*1.0*	*50*	*0*	*96.2*	*77 - 113*				
Surr: Dibromofluoromethane	*53.78*	*1.0*	*50*	*0*	*108*	*73 - 126*				
Surr: Toluene-d8	*49.85*	*1.0*	*50*	*0*	*99.7*	*81 - 120*				

LCS Sample ID: **VLCSW-230623** Units: **ug/L** Analysis Date: **23-Jun-2023 23:19**
Client ID: Run ID: **VOA4_439798** SeqNo: **7383420** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.23	1.0	20	0	91.2	74 - 120				
Ethylbenzene	19.16	1.0	20	0	95.8	77 - 117				
Toluene	19.84	1.0	20	0	99.2	77 - 118				
Xylenes, Total	57.17	1.0	60	0	95.3	75 - 122				
Surr: 1,2-Dichloroethane-d4	*51.79*	*1.0*	*50*	*0*	*104*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*49.91*	*1.0*	*50*	*0*	*99.8*	*77 - 113*				
Surr: Dibromofluoromethane	*52.04*	*1.0*	*50*	*0*	*104*	*73 - 126*				
Surr: Toluene-d8	*51.01*	*1.0*	*50*	*0*	*102*	*81 - 120*				

MS Sample ID: **HS23061202-02MS** Units: **ug/L** Analysis Date: **24-Jun-2023 03:07**
Client ID: Run ID: **VOA4_439798** SeqNo: **7383429** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.08	1.0	20	0	90.4	70 - 127				
Ethylbenzene	18.16	1.0	20	0	90.8	70 - 124				
Toluene	18.98	1.0	20	0	94.9	70 - 123				
Xylenes, Total	55.84	1.0	60	0	93.1	70 - 130				
Surr: 1,2-Dichloroethane-d4	*53.72*	*1.0*	*50*	*0*	*107*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*49.75*	*1.0*	*50*	*0*	*99.5*	*77 - 113*				
Surr: Dibromofluoromethane	*52.31*	*1.0*	*50*	*0*	*105*	*77 - 123*				
Surr: Toluene-d8	*49.87*	*1.0*	*50*	*0*	*99.7*	*82 - 127*				

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23061537

QC BATCH REPORT

Batch ID: R439798 (0) **Instrument: VOA4** **Method: LOW LEVEL VOLATILES BY SW8260C**

MSD Sample ID: **HS23061202-02MSD** Units: **ug/L** Analysis Date: **24-Jun-2023 03:30**
Client ID: Run ID: **VOA4_439798** SeqNo: **7383430** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	17.23	1.0	20	0	86.1	70 - 127	18.08	4.8	20	
Ethylbenzene	17.73	1.0	20	0	88.7	70 - 124	18.16	2.37	20	
Toluene	18.27	1.0	20	0	91.4	70 - 123	18.98	3.81	20	
Xylenes, Total	54.23	1.0	60	0	90.4	70 - 130	55.84	2.91	20	
Surr: 1,2-Dichloroethane-d4	*55.33*	*1.0*	*50*	*0*	*111*	*70 - 126*	*53.72*	*2.95*	*20*	
Surr: 4-Bromofluorobenzene	*49.32*	*1.0*	*50*	*0*	*98.6*	*77 - 113*	*49.75*	*0.879*	*20*	
Surr: Dibromofluoromethane	*52.87*	*1.0*	*50*	*0*	*106*	*77 - 123*	*52.31*	*1.06*	*20*	
Surr: Toluene-d8	*50.56*	*1.0*	*50*	*0*	*101*	*82 - 127*	*49.87*	*1.37*	*20*	

The following samples were analyzed in this batch: HS23061537-01 HS23061537-02 HS23061537-03 HS23061537-04 HS23061537-05

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23061537

QC BATCH REPORT

Batch ID: R440055 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **27-Jun-2023 16:11**
Client ID: Run ID: **ICS-Integrion_440055** SeqNo: **7389273** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **27-Jun-2023 16:22**
Client ID: Run ID: **ICS-Integrion_440055** SeqNo: **7389274** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.01	0.500	20	0	100	90 - 110				

MS Sample ID: **HS23061837-02MS** Units: **mg/L** Analysis Date: **27-Jun-2023 18:18**
Client ID: Run ID: **ICS-Integrion_440055** SeqNo: **7389290** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	180	2.50	50	132.9	94.3	80 - 120				

MS Sample ID: **HS23061837-01MS** Units: **mg/L** Analysis Date: **27-Jun-2023 18:01**
Client ID: Run ID: **ICS-Integrion_440055** SeqNo: **7389287** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	10.54	0.500	10	0.572	99.7	80 - 120				

MSD Sample ID: **HS23061837-02MSD** Units: **mg/L** Analysis Date: **27-Jun-2023 18:24**
Client ID: Run ID: **ICS-Integrion_440055** SeqNo: **7389291** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	179.2	2.50	50	132.9	92.6	80 - 120	180	0.468	20	

MSD Sample ID: **HS23061837-01MSD** Units: **mg/L** Analysis Date: **27-Jun-2023 18:07**
Client ID: Run ID: **ICS-Integrion_440055** SeqNo: **7389288** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	10.47	0.500	10	0.572	98.9	80 - 120	10.54	0.695	20	

The following samples were analyzed in this batch: HS23061537-02 HS23061537-03 HS23061537-04 HS23061537-05

ALS Houston, US Date: 28-Jun-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: **HS23061537**

QUALIFIERS, ACRONYMS, UNITS

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

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

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-37	30-Jun-2023
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 28-Jun-23

Sample Receipt Checklist

Work Order ID: HS23061537 **Date/Time Received:** 22-Jun-2023 09:25

Client Name: GHDHouston **Received by:** Corey Grandits

Completed By:	/S/ Belinda Gomez	22-Jun-2023 15:50	**Reviewed by:**	/S/ James Guin	23-Jun-2023 07:28
	eSignature	Date/Time		eSignature	Date/Time

Matrices: w Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:268250
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.9uc/2.8	ir31	
Cooler(s)/Kit(s):	49803		
Date/Time sample(s) sent to storage:	06/22/2023 1600		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Middletown, PA +1 717 944 5541
Spring City, PA +1 610 948 4903
Salt Lake City, UT +1 801 266 7700
South Charleston, WV +1 304 356 3168
York, PA +1 717 505 5280

Chain of Custody Form

Page ____ of ____

COC ID: 268250

ALS Project Manager: | ALS Work Order #:

Customer Information

Purchase Order	E-19002-GL-21300014 Stacy Boul
Work Order	
Company Name	GHD
Send Report To	Blair Owen
Address	11451 Katy Fwy Suite 400
City/State/Zip	Houston, TX 77079
Phone	(713) 734-3090
Fax	(713) 734-3391
e-Mail Address	blair.owen@ghd.com

Project Information

Project Name	12603935 - SU O-6 2023
Project Number	12603649
Bill To Company	Energy Transfer
Invoice Attn	Stacy Boultinghouse
Address	P.O Box 132400
City/State/Zip	Dallas TX 75313
Phone	
Fax	
e-Mail Address	Stacy.Boultinghouse@energytransfer.co

Parameter/Method Request for Analysis

A	8260_LL_W (8260 BTEX) [3xVOA HCl]
B	300_W (300 Cl) [120ml P Neat]
C	8260_LL_W (Trip Blank: 8260 BTEX) [2xVOA HCl]
D	
E	
F	
G	
H	
I	
J	

HS23061537
GHD
12603935 - SU O-6 2023

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	12603935_TB01			Water	1	2			X								
2	MW-1-20230620	6/20/23	1520	GW	1,8	4	X	X									
3	MW-2-20230620	6/20/23	1630	GW	1,8	4	X	X									
4	MW-3-20230620	6/20/23	1600	GW	1,8	4	X	X									
5	DUP01	6/20/23	—	GW	1,8	4	X	X									
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign

Shipment Method

Required Turnaround Time: (Check Box) [X] STD 10 Wk Days [ ] 5 Wk Days [ ] 2 Wk Days [ ] 24 Hour [ ] Other ______

Results Due Date:

Relinquished by: [signature]	Date: 6/21/23	Time: 1500	Received by:
Relinquished by:	Date:	Time:	Received by (Laboratory): CL 6-22-23 0925
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

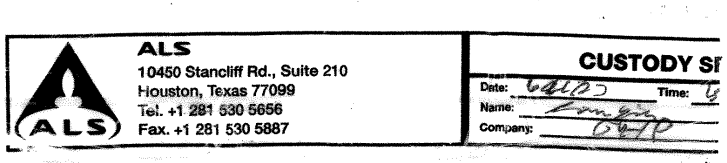
Notes: ETC O-6 Lea County

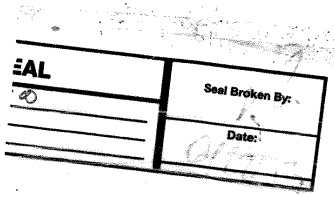
Cooler ID	Cooler Temp.
49803 .021	2.9°

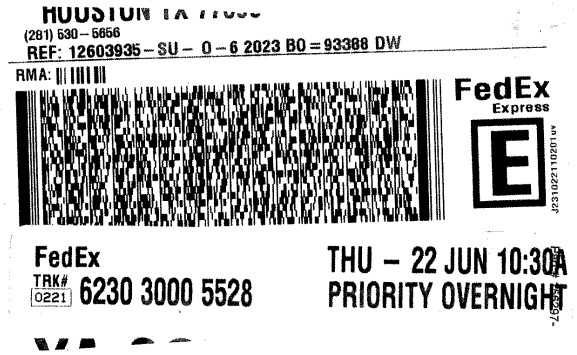
QC Package: (Check One Box Below)
[X] Level II Std QC
[ ] Level III Std QC/Raw Date
[ ] Level IV SW846/CLP
[ ] Other ______
[ ] TRRP Checklist
[ ] TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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







10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

September 28, 2023

Blair Owen
GHD
11451 Katy Fwy
Suite 400
Houston, TX 77079

Work Order: **HS23090925**

Laboratory Results for: **12603935 - SU O-6 2023**

Dear Blair Owen,

ALS Environmental received 5 sample(s) on Sep 15, 2023 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: JUMOKE.LAWAL
James Guin

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
Work Order: HS23090925

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23090925-01	1260935-TB01	Groundwater	CG-071023-838	13-Sep-2023 00:00	15-Sep-2023 10:00	☐
HS23090925-02	MW-1-20230913	Groundwater		13-Sep-2023 17:45	15-Sep-2023 10:00	☐
HS23090925-03	MW-2-20230913	Groundwater		13-Sep-2023 17:55	15-Sep-2023 10:00	☐
HS23090925-04	MW-3-20230913	Groundwater		13-Sep-2023 17:15	15-Sep-2023 10:00	☐
HS23090925-05	DUP-01-20230913	Groundwater		13-Sep-2023 00:00	15-Sep-2023 10:00	☐

ALS Houston, US Date: 28-Sep-23

Client: GHD **CASE NARRATIVE**
Project: 12603935 - SU O-6 2023
Work Order: HS23090925

GCMS Volatiles by Method SW8260

Batch ID: R446724

Sample ID: HS23090736-01MS

- MS and MSD are for an unrelated sample

Batch ID: R446759

Sample ID: HS23090958-01MS

- MS and MSD are for an unrelated sample

WetChemistry by Method E300

Batch ID: R447536

Sample ID: HS23090943-04MS

- MS and MSD are for an unrelated sample

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: 1260935-TB01
Collection Date: 13-Sep-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23090925
Lab ID:HS23090925-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: PC
Benzene		U	0.0010	mg/L	1	19-Sep-2023 04:27
Ethylbenzene		U	0.0010	mg/L	1	19-Sep-2023 04:27
Toluene		U	0.0010	mg/L	1	19-Sep-2023 04:27
Xylenes, Total		U	0.0030	mg/L	1	19-Sep-2023 04:27
Surr: 1,2-Dichloroethane-d4	*104*		*70-126*	*%REC*	*1*	*19-Sep-2023 04:27*
Surr: 4-Bromofluorobenzene	*84.7*		*77-113*	*%REC*	*1*	*19-Sep-2023 04:27*
Surr: Dibromofluoromethane	*98.9*		*77-123*	*%REC*	*1*	*19-Sep-2023 04:27*
Surr: Toluene-d8	*110*		*82-127*	*%REC*	*1*	*19-Sep-2023 04:27*

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

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: MW-1-20230913
Collection Date: 13-Sep-2023 17:45

ANALYTICAL REPORT
WorkOrder:HS23090925
Lab ID:HS23090925-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
Benzene		U	0.0010	mg/L	1	19-Sep-2023 17:01
Ethylbenzene		U	0.0010	mg/L	1	19-Sep-2023 17:01
Toluene		U	0.0010	mg/L	1	19-Sep-2023 17:01
Xylenes, Total		U	0.0030	mg/L	1	19-Sep-2023 17:01
Surr: 1,2-Dichloroethane-d4	*103*		*70-126*	*%REC*	*1*	*19-Sep-2023 17:01*
Surr: 4-Bromofluorobenzene	*85.4*		*77-113*	*%REC*	*1*	*19-Sep-2023 17:01*
Surr: Dibromofluoromethane	*106*		*77-123*	*%REC*	*1*	*19-Sep-2023 17:01*
Surr: Toluene-d8	*111*		*82-127*	*%REC*	*1*	*19-Sep-2023 17:01*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**2,090**		**25.0**	**mg/L**	50	27-Sep-2023 18:25

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

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: MW-2-20230913
Collection Date: 13-Sep-2023 17:55

ANALYTICAL REPORT
WorkOrder:HS23090925
Lab ID:HS23090925-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
Benzene		U	0.0010	mg/L	1	19-Sep-2023 17:23
Ethylbenzene		U	0.0010	mg/L	1	19-Sep-2023 17:23
Toluene		U	0.0010	mg/L	1	19-Sep-2023 17:23
Xylenes, Total		U	0.0030	mg/L	1	19-Sep-2023 17:23
Surr: 1,2-Dichloroethane-d4	*106*		*70-126*	*%REC*	*1*	*19-Sep-2023 17:23*
Surr: 4-Bromofluorobenzene	*84.7*		*77-113*	*%REC*	*1*	*19-Sep-2023 17:23*
Surr: Dibromofluoromethane	*104*		*77-123*	*%REC*	*1*	*19-Sep-2023 17:23*
Surr: Toluene-d8	*112*		*82-127*	*%REC*	*1*	*19-Sep-2023 17:23*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**1,970**		**25.0**	**mg/L**	50	27-Sep-2023 18:31

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

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: MW-3-20230913
Collection Date: 13-Sep-2023 17:15

ANALYTICAL REPORT
WorkOrder:HS23090925
Lab ID:HS23090925-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
Benzene		U	0.0010	mg/L	1	19-Sep-2023 17:45
Ethylbenzene		U	0.0010	mg/L	1	19-Sep-2023 17:45
Toluene		U	0.0010	mg/L	1	19-Sep-2023 17:45
Xylenes, Total		U	0.0030	mg/L	1	19-Sep-2023 17:45
Surr: 1,2-Dichloroethane-d4	*103*		*70-126*	*%REC*	*1*	*19-Sep-2023 17:45*
Surr: 4-Bromofluorobenzene	*86.5*		*77-113*	*%REC*	*1*	*19-Sep-2023 17:45*
Surr: Dibromofluoromethane	*99.7*		*77-123*	*%REC*	*1*	*19-Sep-2023 17:45*
Surr: Toluene-d8	*113*		*82-127*	*%REC*	*1*	*19-Sep-2023 17:45*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**1,950**		**25.0**	**mg/L**	50	27-Sep-2023 19:06

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

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: DUP-01-20230913
Collection Date: 13-Sep-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23090925
Lab ID:HS23090925-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
Benzene		U	0.0010	mg/L	1	19-Sep-2023 18:08
Ethylbenzene		U	0.0010	mg/L	1	19-Sep-2023 18:08
Toluene		U	0.0010	mg/L	1	19-Sep-2023 18:08
Xylenes, Total		U	0.0030	mg/L	1	19-Sep-2023 18:08
Surr: 1,2-Dichloroethane-d4	*104*		*70-126*	*%REC*	*1*	*19-Sep-2023 18:08*
Surr: 4-Bromofluorobenzene	*84.4*		*77-113*	*%REC*	*1*	*19-Sep-2023 18:08*
Surr: Dibromofluoromethane	*105*		*77-123*	*%REC*	*1*	*19-Sep-2023 18:08*
Surr: Toluene-d8	*112*		*82-127*	*%REC*	*1*	*19-Sep-2023 18:08*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**1,890**		**25.0**	**mg/L**	50	27-Sep-2023 19:11

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

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23090925

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R446724 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** Groundwater	
HS23090925-01	1260935-TB01	13 Sep 2023 00:00			19 Sep 2023 04:27	1
Batch ID: R446759 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** Groundwater	
HS23090925-02	MW-1-20230913	13 Sep 2023 17:45			19 Sep 2023 17:01	1
HS23090925-03	MW-2-20230913	13 Sep 2023 17:55			19 Sep 2023 17:23	1
HS23090925-04	MW-3-20230913	13 Sep 2023 17:15			19 Sep 2023 17:45	1
HS23090925-05	DUP-01-20230913	13 Sep 2023 00:00			19 Sep 2023 18:08	1
Batch ID: R447536 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Groundwater	
HS23090925-02	MW-1-20230913	13 Sep 2023 17:45			27 Sep 2023 18:25	50
HS23090925-03	MW-2-20230913	13 Sep 2023 17:55			27 Sep 2023 18:31	50
HS23090925-04	MW-3-20230913	13 Sep 2023 17:15			27 Sep 2023 19:06	50
HS23090925-05	DUP-01-20230913	13 Sep 2023 00:00			27 Sep 2023 19:11	50

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23090925

QC BATCH REPORT

Batch ID: R446724 (0) **Instrument: VOA9** **Method: LOW LEVEL VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKW-230918** Units: **ug/L** Analysis Date: **19-Sep-2023 00:43**
Client ID: Run ID: **VOA9_446724** SeqNo: **7551401** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	*52.51*	*1.0*	*50*	*0*	*105*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*42.87*	*1.0*	*50*	*0*	*85.7*	*77 - 113*				
Surr: Dibromofluoromethane	*50.42*	*1.0*	*50*	*0*	*101*	*73 - 126*				
Surr: Toluene-d8	*55.81*	*1.0*	*50*	*0*	*112*	*81 - 120*				

LCS Sample ID: **VLCSW-230918** Units: **ug/L** Analysis Date: **18-Sep-2023 23:58**
Client ID: Run ID: **VOA9_446724** SeqNo: **7551400** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.74	1.0	20	0	98.7	74 - 120				
Ethylbenzene	20.11	1.0	20	0	101	77 - 117				
Toluene	20.94	1.0	20	0	105	77 - 118				
Xylenes, Total	58.05	3.0	60	0	96.7	75 - 122				
Surr: 1,2-Dichloroethane-d4	*55.04*	*1.0*	*50*	*0*	*110*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*50.86*	*1.0*	*50*	*0*	*102*	*77 - 113*				
Surr: Dibromofluoromethane	*53.72*	*1.0*	*50*	*0*	*107*	*73 - 126*				
Surr: Toluene-d8	*54.08*	*1.0*	*50*	*0*	*108*	*81 - 120*				

MS Sample ID: **HS23090736-01MS** Units: **ug/L** Analysis Date: **19-Sep-2023 01:50**
Client ID: Run ID: **VOA9_446724** SeqNo: **7551404** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	163	1.0	20	136.5	133	70 - 127				SO
Ethylbenzene	25.42	1.0	20	1.273	121	70 - 124				
Toluene	39.24	1.0	20	12.2	135	70 - 123				S
Xylenes, Total	71.04	3.0	60	1.997	115	70 - 130				
Surr: 1,2-Dichloroethane-d4	*50.59*	*1.0*	*50*	*0*	*101*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*48.11*	*1.0*	*50*	*0*	*96.2*	*77 - 113*				
Surr: Dibromofluoromethane	*47.9*	*1.0*	*50*	*0*	*95.8*	*77 - 123*				
Surr: Toluene-d8	*58.2*	*1.0*	*50*	*0*	*116*	*82 - 127*				

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23090925

QC BATCH REPORT

Batch ID: R446724 (0) **Instrument:** VOA9 **Method:** LOW LEVEL VOLATILES BY SW8260C

MSD Sample ID: **HS23090736-01MSD** Units: **ug/L** Analysis Date: **19-Sep-2023 02:12**
Client ID: Run ID: **VOA9_446724** SeqNo: **7551405** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	156.1	1.0	20	136.5	98.1	70 - 127	163	4.31	20	O
Ethylbenzene	24.51	1.0	20	1.273	116	70 - 124	25.42	3.62	20	
Toluene	36.55	1.0	20	12.2	122	70 - 123	39.24	7.1	20	
Xylenes, Total	69.52	3.0	60	1.997	113	70 - 130	71.04	2.16	20	
Surr: 1,2-Dichloroethane-d4	*50.78*	*1.0*	*50*	*0*	*102*	*70 - 126*	*50.59*	*0.363*	*20*	
Surr: 4-Bromofluorobenzene	*48.55*	*1.0*	*50*	*0*	*97.1*	*77 - 113*	*48.11*	*0.896*	*20*	
Surr: Dibromofluoromethane	*49.58*	*1.0*	*50*	*0*	*99.2*	*77 - 123*	*47.9*	*3.44*	*20*	
Surr: Toluene-d8	*56.59*	*1.0*	*50*	*0*	*113*	*82 - 127*	*58.2*	*2.8*	*20*	

The following samples were analyzed in this batch: HS23090925-01

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23090925

QC BATCH REPORT

Batch ID: R446759 (0) **Instrument: VOA9** **Method: LOW LEVEL VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKW-230919** Units: **ug/L** Analysis Date: **19-Sep-2023 12:32**
Client ID: Run ID: **VOA9_446759** SeqNo: **7552099** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	*52.08*	*1.0*	*50*	*0*	*104*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*43.22*	*1.0*	*50*	*0*	*86.4*	*77 - 113*				
Surr: Dibromofluoromethane	*49.37*	*1.0*	*50*	*0*	*98.7*	*73 - 126*				
Surr: Toluene-d8	*55.99*	*1.0*	*50*	*0*	*112*	*81 - 120*				

LCS Sample ID: **VLCSW-230919** Units: **ug/L** Analysis Date: **19-Sep-2023 11:47**
Client ID: Run ID: **VOA9_446759** SeqNo: **7552098** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.17	1.0	20	0	101	74 - 120				
Ethylbenzene	20.22	1.0	20	0	101	77 - 117				
Toluene	21.53	1.0	20	0	108	77 - 118				
Xylenes, Total	59.08	3.0	60	0	98.5	75 - 122				
Surr: 1,2-Dichloroethane-d4	*53.16*	*1.0*	*50*	*0*	*106*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*52.88*	*1.0*	*50*	*0*	*106*	*77 - 113*				
Surr: Dibromofluoromethane	*53.02*	*1.0*	*50*	*0*	*106*	*73 - 126*				
Surr: Toluene-d8	*54.57*	*1.0*	*50*	*0*	*109*	*81 - 120*				

MS Sample ID: **HS23090958-01MS** Units: **ug/L** Analysis Date: **19-Sep-2023 14:46**
Client ID: Run ID: **VOA9_446759** SeqNo: **7552105** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.9	1.0	20	0	114	70 - 127				
Ethylbenzene	23.08	1.0	20	0	115	70 - 124				
Toluene	25	1.0	20	0	125	70 - 123				S
Xylenes, Total	67.72	3.0	60	0	113	70 - 130				
Surr: 1,2-Dichloroethane-d4	*49.39*	*1.0*	*50*	*0*	*98.8*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*48.9*	*1.0*	*50*	*0*	*97.8*	*77 - 113*				
Surr: Dibromofluoromethane	*47.85*	*1.0*	*50*	*0*	*95.7*	*77 - 123*				
Surr: Toluene-d8	*57.16*	*1.0*	*50*	*0*	*114*	*82 - 127*				

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23090925

QC BATCH REPORT

Batch ID: R446759 (0) **Instrument:** VOA9 **Method:** LOW LEVEL VOLATILES BY SW8260C

MSD Sample ID: **HS23090958-01MSD** Units: **ug/L** Analysis Date: **19-Sep-2023 15:09**
Client ID: Run ID: **VOA9_446759** SeqNo: **7552349** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	22.1	1.0	20	0	110	70 - 127	22.9	3.57	20	
Ethylbenzene	23.64	1.0	20	0	118	70 - 124	23.08	2.38	20	
Toluene	24.08	1.0	20	0	120	70 - 123	25	3.74	20	
Xylenes, Total	66.62	3.0	60	0	111	70 - 130	67.72	1.63	20	
Surr: 1,2-Dichloroethane-d4	*50.27*	*1.0*	*50*	*0*	*101*	*70 - 126*	*49.39*	*1.75*	*20*	
Surr: 4-Bromofluorobenzene	*48.58*	*1.0*	*50*	*0*	*97.2*	*77 - 113*	*48.9*	*0.665*	*20*	
Surr: Dibromofluoromethane	*51.21*	*1.0*	*50*	*0*	*102*	*77 - 123*	*47.85*	*6.78*	*20*	
Surr: Toluene-d8	*56.51*	*1.0*	*50*	*0*	*113*	*82 - 127*	*57.16*	*1.14*	*20*	

The following samples were analyzed in this batch: HS23090925-02 HS23090925-03 HS23090925-04 HS23090925-05

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23090925

QC BATCH REPORT

Batch ID: R447536 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **27-Sep-2023 14:34**
Client ID: Run ID: **ICS-Integrion_447536** SeqNo: **7569632** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **27-Sep-2023 14:45**
Client ID: Run ID: **ICS-Integrion_447536** SeqNo: **7569633** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.38	0.500	20	0	102	90 - 110				

MS Sample ID: **HS23091613-02MS** Units: **mg/L** Analysis Date: **27-Sep-2023 15:09**
Client ID: Run ID: **ICS-Integrion_447536** SeqNo: **7569637** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	33.85	0.500	10	24.75	91.0	80 - 120				

MS Sample ID: **HS23090943-04MS** Units: **mg/L** Analysis Date: **27-Sep-2023 16:52**
Client ID: Run ID: **ICS-Integrion_447536** SeqNo: **7569652** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	688.8	5.00	100	624.6	64.1	80 - 120				SO

MSD Sample ID: **HS23091613-02MSD** Units: **mg/L** Analysis Date: **27-Sep-2023 15:14**
Client ID: Run ID: **ICS-Integrion_447536** SeqNo: **7569638** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	33.96	0.500	10	24.75	92.1	80 - 120	33.85	0.327	20	

MSD Sample ID: **HS23090943-04MSD** Units: **mg/L** Analysis Date: **27-Sep-2023 16:58**
Client ID: Run ID: **ICS-Integrion_447536** SeqNo: **7569653** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	689.7	5.00	100	624.6	65.1	80 - 120	688.8	0.141	20	SO

The following samples were analyzed in this batch: HS23090925-02 HS23090925-03 HS23090925-04 HS23090925-05

ALS Houston, US Date: 28-Sep-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: **HS23090925**

QUALIFIERS, ACRONYMS, UNITS

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

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

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US Date: 28-Sep-23

Sample Receipt Checklist

Work Order ID: HS23090925 **Date/Time Received:** 15-Sep-2023 10:00

Client Name: GHDHouston **Received by:** Olatunde Akinola

Completed By:	/S/ Nilesh D. Ranchod	16-Sep-2023 12:33	**Reviewed by:**	/S/ Nieka.Carson	18-Sep-2023 10:48
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **GW** Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☑	Not Present ☐
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:307509
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.8UC, 404C	IR31	
Cooler(s)/Kit(s):	48661		
Date/Time sample(s) sent to storage:	09162023		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

Page _____ of _____

COC ID: 307509

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	E-19002-GL-21300014 Stacy Boul	Project Name	12603935 - SU O-6 2023	A	8260_LL_W (8260 BTEX) [3xVOA HCl]
Work Order		Project Number	12603649	B	300_W (300 Cl) [120ml P Neat]
Company Name	GHD	Bill To Company	Energy Transfer	C	8260_LL_W (Trip Blank: 8260 BTEX) [2xVOA HCl]
Send Report To	Blair Owen	Invoice Attn	Stacy Boultinghouse	D	
Address	11451 Katy Fwy Suite 400	Address	P.O Box 132400	E	
				F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Dallas TX 75313	G	
Phone	(713) 734-3090	Phone		H	
Fax	(713) 734-3391	Fax		I	
e-Mail Address	blair.owen@ghd.com	e-Mail Address	Stacy.Boultinghouse@energytransfer.co	J	

HS23090925

GHD

12603935 - SU O-6 2023

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	12603935_TB01	9/13/23		Water	1	2			X								
2	MW-1-20230913	9/13/23	17:45	GW	1,8	4	X	X									
3	MW-2-20230913	9/13/23	17:55	GW	1,8	4	X	X									
4	MW-3-20230913	9/13/23	17:15	GW	1,8	4	X	X									
5	DUP-01-20230913	9/13/23	—	GW	1,8	4	X	X									
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Elizabeth Fain

Shipment Method:

Required Turnaround Time: (Check Box) ☐ Other ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date: 9/14/23	Time: 1410	Received by:	Notes: ETC O-6 Lea County
Relinquished by:	Date:	Time:	Received by (Laboratory): 9-15-23 1000	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

Cooler ID	Cooler Temp.
98061	4.5°
IR1	

QC Package: (Check One Box Below)
☒ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

November 16, 2023

Blair Owen
GHD
11451 Katy Fwy
Suite 400
Houston, TX 77079

Work Order: **HS23101721**

Laboratory Results for: **12603935 - SU O-6 2023**

Dear Blair Owen,

ALS Environmental received 23 sample(s) on Oct 25, 2023 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: JUMOKE.LAWAL
James Guin

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
Work Order: HS23101721

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23101721-01	SB-3(0ft)-20231023	Soil		23-Oct-2023 14:10	25-Oct-2023 09:30	☑
HS23101721-02	SB-3(5ft)-20231023	Soil		23-Oct-2023 14:15	25-Oct-2023 09:30	☑
HS23101721-03	SB-3(10ft)-20231023	Soil		23-Oct-2023 14:20	25-Oct-2023 09:30	☑
HS23101721-04	SB-3(15ft)-20231023	Soil		23-Oct-2023 14:25	25-Oct-2023 09:30	☑
HS23101721-05	SB-3(20ft)-20231023	Soil		23-Oct-2023 14:30	25-Oct-2023 09:30	☑
HS23101721-06	SB-3(25ft)-20231023	Soil		23-Oct-2023 14:35	25-Oct-2023 09:30	☐
HS23101721-07	SB-3(30ft)-20231023	Soil		23-Oct-2023 14:40	25-Oct-2023 09:30	☑
HS23101721-08	Waste-Char-20231023	Soil		23-Oct-2023 15:00	25-Oct-2023 09:30	☑
HS23101721-09	Trip Blank-CG-100323-258	Water		23-Oct-2023 00:00	25-Oct-2023 09:30	☑
HS23101721-10	SB-4(5ft)-20231023	Soil		23-Oct-2023 11:25	25-Oct-2023 09:30	☑
HS23101721-11	SB-4(7ft)-20231023	Soil		23-Oct-2023 11:30	25-Oct-2023 09:30	☐
HS23101721-12	SB-4(10ft)-20231023	Soil		23-Oct-2023 11:35	25-Oct-2023 09:30	☑
HS23101721-13	SB-4(15ft)-20231023	Soil		23-Oct-2023 11:40	25-Oct-2023 09:30	☑
HS23101721-14	SB-4(20ft)-20231023	Soil		23-Oct-2023 11:45	25-Oct-2023 09:30	☑
HS23101721-15	SB-4(25ft)-20231023	Soil		23-Oct-2023 11:50	25-Oct-2023 09:30	☑
HS23101721-16	SB-4(30ft)-20231023	Soil		23-Oct-2023 11:55	25-Oct-2023 09:30	☑
HS23101721-17	SB-5(0ft)-20231023	Soil		23-Oct-2023 12:15	25-Oct-2023 09:30	☑
HS23101721-18	SB-5(5ft)-20231023	Soil		23-Oct-2023 12:20	25-Oct-2023 09:30	☑
HS23101721-19	SB-5(10ft)-20231023	Soil		23-Oct-2023 12:25	25-Oct-2023 09:30	☑
HS23101721-20	SB-5(15ft)-20231023	Soil		23-Oct-2023 12:30	25-Oct-2023 09:30	☐
HS23101721-21	SB-5(20ft)-20231023	Soil		23-Oct-2023 12:35	25-Oct-2023 09:30	☑
HS23101721-22	SB-5(25ft)-20231023	Soil		23-Oct-2023 12:40	25-Oct-2023 09:30	☑
HS23101721-23	SB-5(30ft)-20231023	Soil		23-Oct-2023 12:50	25-Oct-2023 09:30	☑

ALS Houston, US Date: 16-Nov-23

Client: GHD **CASE NARRATIVE**
Project: 12603935 - SU O-6 2023
Work Order: HS23101721

GC Semivolatiles by Method SW8015C

Batch ID: 203003

Sample ID: SB-3(25ft)-20231023 (HS23101721-06MSD)

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

GC Semivolatiles by Method SW8015M

Batch ID: 203003

Sample ID: SB-3(25ft)-20231023 (HS23101721-06MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

GC Volatiles by Method SW8015

Batch ID: R450703

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260

Batch ID: R450347

Sample ID: HS23101700-11MS

- MS and MSD are for an unrelated sample

Batch ID: R450348

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method ASTM D2216

Batch ID: R450597

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300

Batch ID: 202816

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: SB-3(25ft)-20231023
Collection Date: 23-Oct-2023 14:35

ANALYTICAL REPORT
WorkOrder:HS23101721
Lab ID:HS23101721-06
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene		U	0.0059	mg/Kg-dry	1	28-Oct-2023 00:44
Ethylbenzene		U	0.0059	mg/Kg-dry	1	28-Oct-2023 00:44
Toluene		U	0.0059	mg/Kg-dry	1	28-Oct-2023 00:44
Xylenes, Total		U	0.0059	mg/Kg-dry	1	28-Oct-2023 00:44
Surr: 1,2-Dichloroethane-d4	*78.7*		*70-126*	*%REC*	*1*	*28-Oct-2023 00:44*
Surr: 4-Bromofluorobenzene	*99.4*		*70-130*	*%REC*	*1*	*28-Oct-2023 00:44*
Surr: Dibromofluoromethane	*91.1*		*70-130*	*%REC*	*1*	*28-Oct-2023 00:44*
Surr: Toluene-d8	*98.1*		*70-130*	*%REC*	*1*	*28-Oct-2023 00:44*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: TS
Gasoline Range Organics		U	0.058	mg/Kg-dry	1	01-Nov-2023 18:57
Surr: 4-Bromofluorobenzene	*81.4*		*70-123*	*%REC*	*1*	*01-Nov-2023 18:57*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 03-Nov-2023		Analyst: SAM
TPH (Diesel Range)	**70**		**1.9**	**mg/Kg-dry**	1	04-Nov-2023 09:13
TPH (Motor Oil Range)	**120**		**19**	**mg/Kg-dry**	5	06-Nov-2023 11:54
Surr: 2-Fluorobiphenyl	*72.0*		*60-129*	*%REC*	*1*	*04-Nov-2023 09:13*
Surr: 2-Fluorobiphenyl	*79.3*		*60-129*	*%REC*	*5*	*06-Nov-2023 11:54*
MOISTURE - ASTM D2216		**Method:ASTM D2216**				Analyst: MR
Percent Moisture	**13.5**		**0.0100**	**wt%**	1	31-Oct-2023 13:10
ANIONS BY E300.0, REV 2.1, 1993 MODIFIED FOR SOIL		**Method:E300**		Prep:E300 / 01-Nov-2023		Analyst: TH
Chloride	**758**		**28.1**	**mg/Kg-dry**	5	04-Nov-2023 22:19

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

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: SB-4(7ft)-20231023
Collection Date: 23-Oct-2023 11:30

ANALYTICAL REPORT
WorkOrder:HS23101721
Lab ID:HS23101721-11
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene		U	0.0053	mg/Kg-dry	1	27-Oct-2023 23:05
Ethylbenzene		U	0.0053	mg/Kg-dry	1	27-Oct-2023 23:05
Toluene		U	0.0053	mg/Kg-dry	1	27-Oct-2023 23:05
Xylenes, Total		U	0.0053	mg/Kg-dry	1	27-Oct-2023 23:05
Surr: 1,2-Dichloroethane-d4	*109*		*70-126*	*%REC*	*1*	*27-Oct-2023 23:05*
Surr: 4-Bromofluorobenzene	*95.4*		*70-130*	*%REC*	*1*	*27-Oct-2023 23:05*
Surr: Dibromofluoromethane	*94.0*		*70-130*	*%REC*	*1*	*27-Oct-2023 23:05*
Surr: Toluene-d8	*99.2*		*70-130*	*%REC*	*1*	*27-Oct-2023 23:05*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: TS
Gasoline Range Organics		U	0.053	mg/Kg-dry	1	01-Nov-2023 19:13
Surr: 4-Bromofluorobenzene	*80.8*		*70-123*	*%REC*	*1*	*01-Nov-2023 19:13*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 03-Nov-2023		Analyst: SAM
TPH (Diesel Range)	**6.4**		**1.8**	**mg/Kg-dry**	1	04-Nov-2023 08:26
TPH (Motor Oil Range)	**5.1**		**3.7**	**mg/Kg-dry**	1	04-Nov-2023 08:26
Surr: 2-Fluorobiphenyl	*88.5*		*60-129*	*%REC*	*1*	*04-Nov-2023 08:26*
MOISTURE - ASTM D2216		**Method:ASTM D2216**				Analyst: MR
Percent Moisture	**7.95**		**0.0100**	**wt%**	1	31-Oct-2023 13:10
ANIONS BY E300.0, REV 2.1, 1993 MODIFIED FOR SOIL		**Method:E300**		Prep:E300 / 01-Nov-2023		Analyst: TH
Chloride	**9.41**		**5.40**	**mg/Kg-dry**	1	04-Nov-2023 22:24

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

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: SB-5(15ft)-20231023
Collection Date: 23-Oct-2023 12:30

ANALYTICAL REPORT
WorkOrder:HS23101721
Lab ID:HS23101721-20
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene		U	0.0062	mg/Kg-dry	1	28-Oct-2023 00:31
Ethylbenzene		U	0.0062	mg/Kg-dry	1	28-Oct-2023 00:31
Toluene		U	0.0062	mg/Kg-dry	1	28-Oct-2023 00:31
Xylenes, Total		U	0.0062	mg/Kg-dry	1	28-Oct-2023 00:31
Surr: 1,2-Dichloroethane-d4	*103*		*70-126*	*%REC*	*1*	*28-Oct-2023 00:31*
Surr: 4-Bromofluorobenzene	*93.7*		*70-130*	*%REC*	*1*	*28-Oct-2023 00:31*
Surr: Dibromofluoromethane	*90.4*		*70-130*	*%REC*	*1*	*28-Oct-2023 00:31*
Surr: Toluene-d8	*100*		*70-130*	*%REC*	*1*	*28-Oct-2023 00:31*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: TS
Gasoline Range Organics		U	0.064	mg/Kg-dry	1	01-Nov-2023 19:28
Surr: 4-Bromofluorobenzene	*76.2*		*70-123*	*%REC*	*1*	*01-Nov-2023 19:28*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 03-Nov-2023		Analyst: SAM
TPH (Diesel Range)	**140**		**11**	**mg/Kg-dry**	5	04-Nov-2023 09:59
TPH (Motor Oil Range)	**14**		**4.3**	**mg/Kg-dry**	1	04-Nov-2023 08:49
Surr: 2-Fluorobiphenyl	*83.7*		*60-129*	*%REC*	*1*	*04-Nov-2023 08:49*
Surr: 2-Fluorobiphenyl	*84.9*		*60-129*	*%REC*	*5*	*04-Nov-2023 09:59*
MOISTURE - ASTM D2216		**Method:ASTM D2216**				Analyst: MR
Percent Moisture	**20.7**		**0.0100**	**wt%**	1	31-Oct-2023 13:10
ANIONS BY E300.0, REV 2.1, 1993 MODIFIED FOR SOIL		**Method:E300**		Prep:E300 / 01-Nov-2023		Analyst: TH
Chloride	**47.2**		**6.07**	**mg/Kg-dry**	1	04-Nov-2023 22:30

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

ALS Houston, US

Date: 16-Nov-23

Weight / Prep Log

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23101721

Batch ID: 6493 **Start Date:** 27 Oct 2023 10:02 **End Date:** 27 Oct 2023 10:02
Method: VOLATILES BY SW8260C

Sample ID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS23101721-06	1	4.9 (g)	5 (mL)	1.02	Bulk (5030B)
HS23101721-11	1	5.111 (g)	5 (mL)	0.98	Bulk (5030B)
HS23101721-20	1	5.055 (g)	5 (mL)	0.99	Bulk (5030B)

Batch ID: 6505 **Start Date:** 01 Nov 2023 10:07 **End Date:** 01 Nov 2023 10:07
Method: GASOLINE RANGE ORGANICS BY SW8015C **Prep Code:**

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23101721-06	1	4.96 (g)	5 (mL)	1.01	Bulk (5030B)
HS23101721-11	1	5.162 (g)	5 (mL)	0.97	Bulk (5030B)
HS23101721-20	1	4.97 (g)	5 (mL)	1.01	Bulk (5030B)

Batch ID: 202816 **Start Date:** 01 Nov 2023 10:00 **End Date:** 01 Nov 2023 10:00
Method: 300 ANIONS SOIL PREP **Prep Code:** 300_S_PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23101721-06		5.1375 (g)	50 (mL)	9.732	4-oz glass, Neat
HS23101721-11		5.0303 (g)	50 (mL)	9.94	4-oz glass, Neat
HS23101721-20		5.1966 (g)	50 (mL)	9.622	4-oz glass, Neat

Batch ID: 203003 **Start Date:** 03 Nov 2023 10:00 **End Date:** 03 Nov 2023 10:00
Method: SOPREP: 3541 TPH **Prep Code:** 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23101721-06		30.24 (g)	1 (mL)	0.03307	4-oz glass, Neat
HS23101721-11		30.24 (g)	1 (mL)	0.03307	4-oz glass, Neat
HS23101721-20		30.11 (g)	1 (mL)	0.03321	4-oz glass, Neat

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23101721

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 202816 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993 MODIFIED FOR SOIL				**Matrix:** Soil	
HS23101721-06	SB-3(25ft)-20231023	23 Oct 2023 14:35		01 Nov 2023 10:00	04 Nov 2023 22:19	5
HS23101721-11	SB-4(7ft)-20231023	23 Oct 2023 11:30		01 Nov 2023 10:00	04 Nov 2023 22:24	1
HS23101721-20	SB-5(15ft)-20231023	23 Oct 2023 12:30		01 Nov 2023 10:00	04 Nov 2023 22:30	1
Batch ID: 203003 (0)	**Test Name :** TPH DRO/ORO BY SW8015C				**Matrix:** Soil	
HS23101721-06	SB-3(25ft)-20231023	23 Oct 2023 14:35		03 Nov 2023 10:00	06 Nov 2023 11:54	5
HS23101721-06	SB-3(25ft)-20231023	23 Oct 2023 14:35		03 Nov 2023 10:00	04 Nov 2023 09:13	1
HS23101721-11	SB-4(7ft)-20231023	23 Oct 2023 11:30		03 Nov 2023 10:00	04 Nov 2023 08:26	1
HS23101721-20	SB-5(15ft)-20231023	23 Oct 2023 12:30		03 Nov 2023 10:00	04 Nov 2023 09:59	5
HS23101721-20	SB-5(15ft)-20231023	23 Oct 2023 12:30		03 Nov 2023 10:00	04 Nov 2023 08:49	1
Batch ID: R450347 (0)	**Test Name :** VOLATILES BY SW8260C				**Matrix:** Soil	
HS23101721-06	SB-3(25ft)-20231023	23 Oct 2023 14:35			28 Oct 2023 00:44	1
Batch ID: R450348 (0)	**Test Name :** VOLATILES BY SW8260C				**Matrix:** Soil	
HS23101721-11	SB-4(7ft)-20231023	23 Oct 2023 11:30			27 Oct 2023 23:05	1
HS23101721-20	SB-5(15ft)-20231023	23 Oct 2023 12:30			28 Oct 2023 00:31	1
Batch ID: R450597 (0)	**Test Name :** MOISTURE - ASTM D2216				**Matrix:** Soil	
HS23101721-06	SB-3(25ft)-20231023	23 Oct 2023 14:35			31 Oct 2023 13:10	1
HS23101721-11	SB-4(7ft)-20231023	23 Oct 2023 11:30			31 Oct 2023 13:10	1
HS23101721-20	SB-5(15ft)-20231023	23 Oct 2023 12:30			31 Oct 2023 13:10	1
Batch ID: R450703 (0)	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C				**Matrix:** Soil	
HS23101721-06	SB-3(25ft)-20231023	23 Oct 2023 14:35			01 Nov 2023 18:57	1
HS23101721-11	SB-4(7ft)-20231023	23 Oct 2023 11:30			01 Nov 2023 19:13	1
HS23101721-20	SB-5(15ft)-20231023	23 Oct 2023 12:30			01 Nov 2023 19:28	1

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23101721

QC BATCH REPORT

Batch ID: 203003 (0) **Instrument: FID23** **Method: TPH DRO/ORO BY SW8015C**

MBLK Sample ID: **MBLK-203003** Units: **mg/Kg** Analysis Date: **06-Nov-2023 15:48**
Client ID: Run ID: **FID23_451176** SeqNo: **7657857** PrepDate: **03-Nov-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	U	1.7								
TPH (Motor Oil Range)	U	3.4								
Surr: 2-Fluorobiphenyl	*2.692*	*0.10*	*3.33*	*0*	*80.8*	*70 - 130*				

LCS Sample ID: **LCS-203003** Units: **mg/Kg** Analysis Date: **04-Nov-2023 08:49**
Client ID: Run ID: **FID23_451176** SeqNo: **7657860** PrepDate: **03-Nov-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	23.52	1.7	33.33	0	70.6	70 - 130				
TPH (Motor Oil Range)	27.05	3.4	33.33	0	81.2	70 - 130				
Surr: 2-Fluorobiphenyl	*2.355*	*0.10*	*3.33*	*0*	*70.7*	*70 - 130*				

MS Sample ID: **HS23101721-06MS** Units: **mg/Kg** Analysis Date: **06-Nov-2023 11:31**
Client ID: **SB-3(25ft)-20231023** Run ID: **FID23_451176** SeqNo: **7657885** PrepDate: **03-Nov-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	83.27	1.7	33.04	60.38	69.3	70 - 130				SE
TPH (Motor Oil Range)	106.1	3.4	33.04	76.17	90.7	70 - 130				E
Surr: 2-Fluorobiphenyl	*2.544*	*0.099*	*3.301*	*0*	*77.1*	*60 - 129*				

MSD Sample ID: **HS23101721-06MSD** Units: **mg/Kg** Analysis Date: **04-Nov-2023 09:59**
Client ID: **SB-3(25ft)-20231023** Run ID: **FID23_451176** SeqNo: **7657862** PrepDate: **03-Nov-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	87.21	1.7	33.32	60.38	80.5	70 - 130	83.27	4.63	30	E
TPH (Motor Oil Range)	111.1	3.4	33.32	76.17	105	70 - 130	106.1	4.59	30	E
Surr: 2-Fluorobiphenyl	*2.637*	*0.10*	*3.329*	*0*	*79.2*	*60 - 129*	*2.544*	*3.6*	*30*	

The following samples were analyzed in this batch: HS23101721-06 HS23101721-11 HS23101721-20

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23101721

QC BATCH REPORT

Batch ID: R450703 (0) **Instrument:** FID-20 **Method:** GASOLINE RANGE ORGANICS BY SW8015C

MBLK Sample ID: **MBLK-231101** Units: **mg/Kg** Analysis Date: **01-Nov-2023 18:42**
Client ID: Run ID: **FID-20_450703** SeqNo: **7647073** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	U	0.050								
Surr: 4-Bromofluorobenzene	*0.08293*	*0.0050*	*0.1*	*0*	*82.9*	*75 - 121*				

LCS Sample ID: **LCS-231101** Units: **mg/Kg** Analysis Date: **01-Nov-2023 18:11**
Client ID: Run ID: **FID-20_450703** SeqNo: **7647071** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8222	0.050	1	0	82.2	72 - 121				
Surr: 4-Bromofluorobenzene	*0.1003*	*0.0050*	*0.1*	*0*	*100*	*75 - 121*				

LCSD Sample ID: **LCSD-231101** Units: **mg/Kg** Analysis Date: **01-Nov-2023 18:26**
Client ID: Run ID: **FID-20_450703** SeqNo: **7647072** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.075	0.050	1	0	107	72 - 121	0.8222	26.6	30	
Surr: 4-Bromofluorobenzene	*0.1034*	*0.0050*	*0.1*	*0*	*103*	*75 - 121*	*0.1003*	*3.05*	*30*	

The following samples were analyzed in this batch: HS23101721-06 HS23101721-11 HS23101721-20

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23101721

QC BATCH REPORT

Batch ID: R450347 (0) **Instrument: VOA8** **Method: VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKS2-102723** Units: **ug/Kg** Analysis Date: **27-Oct-2023 20:22**
Client ID: Run ID: **VOA8_450347** SeqNo: **7639761** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	*40.17*	*0*	*50*	*0*	*80.3*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*50.09*	*0*	*50*	*0*	*100*	*80 - 120*				
Surr: Dibromofluoromethane	*46.24*	*0*	*50*	*0*	*92.5*	*80 - 119*				
Surr: Toluene-d8	*50*	*0*	*50*	*0*	*100.0*	*81 - 118*				

LCS Sample ID: **VLCSS2-102723** Units: **ug/Kg** Analysis Date: **27-Oct-2023 19:38**
Client ID: Run ID: **VOA8_450347** SeqNo: **7639760** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.88	5.0	50	0	95.8	75 - 124				
Ethylbenzene	49.44	5.0	50	0	98.9	70 - 123				
Toluene	49.22	5.0	50	0	98.4	76 - 122				
Xylenes, Total	151.1	15	150	0	101	77 - 128				
Surr: 1,2-Dichloroethane-d4	*48.78*	*0*	*50*	*0*	*97.6*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*50.4*	*0*	*50*	*0*	*101*	*80 - 120*				
Surr: Dibromofluoromethane	*50.79*	*0*	*50*	*0*	*102*	*80 - 119*				
Surr: Toluene-d8	*49.06*	*0*	*50*	*0*	*98.1*	*81 - 118*				

MS Sample ID: **HS23101700-11MS** Units: **ug/Kg** Analysis Date: **27-Oct-2023 22:11**
Client ID: Run ID: **VOA8_450347** SeqNo: **7639766** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.08	4.9	49	0	45.1	70 - 130				S
Ethylbenzene	24.46	4.9	49	0	49.9	70 - 130				S
Toluene	23.78	4.9	49	0	48.5	70 - 130				S
Xylenes, Total	72.15	15	147	0	49.1	70 - 130				S
Surr: 1,2-Dichloroethane-d4	*48.66*	*0*	*49*	*0*	*99.3*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*49.5*	*0*	*49*	*0*	*101*	*70 - 130*				
Surr: Dibromofluoromethane	*50.29*	*0*	*49*	*0*	*103*	*70 - 130*				
Surr: Toluene-d8	*48.1*	*0*	*49*	*0*	*98.2*	*70 - 130*				

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23101721

QC BATCH REPORT

Batch ID: R450347 (0) **Instrument: VOA8** **Method: VOLATILES BY SW8260C**

MSD Sample ID: **HS23101700-11MSD** Units: **ug/Kg** Analysis Date: **27-Oct-2023 22:33**
Client ID: Run ID: **VOA8_450347** SeqNo: **7639767** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	26.5	4.8	48	0	55.2	70 - 130	22.08	18.2	30	S
Ethylbenzene	28.64	4.8	48	0	59.7	70 - 130	24.46	15.8	30	S
Toluene	28.57	4.8	48	0	59.5	70 - 130	23.78	18.3	30	S
Xylenes, Total	85.35	14	144	0	59.3	70 - 130	72.15	16.8	30	S
Surr: 1,2-Dichloroethane-d4	*47.24*	*0*	*48*	*0*	*98.4*	*70 - 126*	*48.66*	*2.96*	*30*	
Surr: 4-Bromofluorobenzene	*48.18*	*0*	*48*	*0*	*100*	*70 - 130*	*49.5*	*2.72*	*30*	
Surr: Dibromofluoromethane	*49.63*	*0*	*48*	*0*	*103*	*70 - 130*	*50.29*	*1.33*	*30*	
Surr: Toluene-d8	*47.17*	*0*	*48*	*0*	*98.3*	*70 - 130*	*48.1*	*1.95*	*30*	

The following samples were analyzed in this batch: HS23101721-06

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23101721

QC BATCH REPORT

Batch ID: R450348 (0) **Instrument: VOA5** **Method: VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKS2-102723** Units: **ug/Kg** Analysis Date: **27-Oct-2023 20:35**
Client ID: Run ID: **VOA5_450348** SeqNo: **7639794** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	*52.85*	*0*	*50*	*0*	*106*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*47.35*	*0*	*50*	*0*	*94.7*	*80 - 120*				
Surr: Dibromofluoromethane	*49.69*	*0*	*50*	*0*	*99.4*	*80 - 119*				
Surr: Toluene-d8	*49.48*	*0*	*50*	*0*	*99.0*	*81 - 118*				

LCS Sample ID: **VLCSS2-102723** Units: **ug/Kg** Analysis Date: **27-Oct-2023 19:52**
Client ID: Run ID: **VOA5_450348** SeqNo: **7639793** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.64	5.0	50	0	97.3	75 - 124				
Ethylbenzene	44.15	5.0	50	0	88.3	70 - 123				
Toluene	47.01	5.0	50	0	94.0	76 - 122				
Xylenes, Total	131	15	150	0	87.3	77 - 128				
Surr: 1,2-Dichloroethane-d4	*55.25*	*0*	*50*	*0*	*110*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*51.42*	*0*	*50*	*0*	*103*	*80 - 120*				
Surr: Dibromofluoromethane	*51.93*	*0*	*50*	*0*	*104*	*80 - 119*				
Surr: Toluene-d8	*49.7*	*0*	*50*	*0*	*99.4*	*81 - 118*				

MS Sample ID: **HS23101721-15MS** Units: **ug/Kg** Analysis Date: **27-Oct-2023 22:00**
Client ID: **SB-4(25ft)-20231023** Run ID: **VOA5_450348** SeqNo: **7639798** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.67	5.0	50	0	93.3	70 - 130				
Ethylbenzene	41.33	5.0	50	0	82.7	70 - 130				
Toluene	45.59	5.0	50	0	91.2	70 - 130				
Xylenes, Total	124.1	15	150	0	82.8	70 - 130				
Surr: 1,2-Dichloroethane-d4	*56.77*	*0*	*50*	*0*	*114*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*52.42*	*0*	*50*	*0*	*105*	*70 - 130*				
Surr: Dibromofluoromethane	*53.5*	*0*	*50*	*0*	*107*	*70 - 130*				
Surr: Toluene-d8	*48.7*	*0*	*50*	*0*	*97.4*	*70 - 130*				

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23101721

QC BATCH REPORT

Batch ID: R450348 (0) **Instrument:** VOA5 **Method:** VOLATILES BY SW8260C

MSD Sample ID: **HS23101721-15MSD** Units: **ug/Kg** Analysis Date: **27-Oct-2023 22:22**
Client ID: **SB-4(25ft)-20231023** Run ID: **VOA5_450348** SeqNo: **7639799** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	44.18	5.0	50	0	88.4	70 - 130	46.67	5.48	30	
Ethylbenzene	39.97	5.0	50	0	79.9	70 - 130	41.33	3.34	30	
Toluene	43.14	5.0	50	0	86.3	70 - 130	45.59	5.52	30	
Xylenes, Total	119.9	15	150	0	79.9	70 - 130	124.1	3.5	30	
Surr: 1,2-Dichloroethane-d4	*54.53*	*0*	*50*	*0*	*109*	*70 - 126*	*56.77*	*4.02*	*30*	
Surr: 4-Bromofluorobenzene	*51.6*	*0*	*50*	*0*	*103*	*70 - 130*	*52.42*	*1.57*	*30*	
Surr: Dibromofluoromethane	*51.06*	*0*	*50*	*0*	*102*	*70 - 130*	*53.5*	*4.67*	*30*	
Surr: Toluene-d8	*50.2*	*0*	*50*	*0*	*100*	*70 - 130*	*48.7*	*3.02*	*30*	

The following samples were analyzed in this batch: HS23101721-11 HS23101721-20

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23101721

QC BATCH REPORT

Batch ID: 202816 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993 MODIFIED FOR SOIL**

MBLK Sample ID: **MBLK-202816** Units: **mg/Kg** Analysis Date: **04-Nov-2023 20:29**
Client ID: Run ID: **ICS-Integrion_450939** SeqNo: **7652655** PrepDate: **03-Nov-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	5.00								

LCS Sample ID: **LCS-202816** Units: **mg/Kg** Analysis Date: **04-Nov-2023 20:34**
Client ID: Run ID: **ICS-Integrion_450939** SeqNo: **7652656** PrepDate: **03-Nov-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	198.7	5.00	200	0	99.3	90 - 110				

MS Sample ID: **HS23101942-01MS** Units: **mg/Kg** Analysis Date: **04-Nov-2023 21:03**
Client ID: Run ID: **ICS-Integrion_450939** SeqNo: **7652660** PrepDate: **03-Nov-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	116.2	4.93	98.5	16.07	102	75 - 125				

MS Sample ID: **HS23101938-16MS** Units: **mg/Kg** Analysis Date: **04-Nov-2023 19:31**
Client ID: Run ID: **ICS-Integrion_450939** SeqNo: **7652647** PrepDate: **01-Nov-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	185.9	4.90	97.92	76.74	111	75 - 125				

MSD Sample ID: **HS23101942-01MSD** Units: **mg/Kg** Analysis Date: **04-Nov-2023 21:09**
Client ID: Run ID: **ICS-Integrion_450939** SeqNo: **7652661** PrepDate: **03-Nov-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	117	4.99	99.74	16.07	101	75 - 125	116.2	0.69	20	

MSD Sample ID: **HS23101938-16MSD** Units: **mg/Kg** Analysis Date: **04-Nov-2023 19:37**
Client ID: Run ID: **ICS-Integrion_450939** SeqNo: **7652648** PrepDate: **01-Nov-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	181.8	4.80	95.95	76.74	109	75 - 125	185.9	2.21	20	

The following samples were analyzed in this batch: HS23101721-06 HS23101721-11 HS23101721-20

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23101721

QC BATCH REPORT

Batch ID: R450597 (0) **Instrument:** Balance1 **Method:** MOISTURE - ASTM D2216

DUP Sample ID: **HS23101865-05DUP** Units: **wt%** Analysis Date: **31-Oct-2023 13:10**
Client ID: Run ID: **Balance1_450597** SeqNo: **7644641** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture	16.2	0.0100					16.3	0.615	20	

The following samples were analyzed in this batch: HS23101721-06 HS23101721-11 HS23101721-20

ALS Houston, US Date: 16-Nov-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: **HS23101721**

QUALIFIERS, ACRONYMS, UNITS

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

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

Unit Reported	Description
mg/Kg-dry	Milligrams per Kilogram- Dry weight corrected

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US Date: 16-Nov-23

Sample Receipt Checklist

Work Order ID: HS23101721 **Date/Time Received:** 25-Oct-2023 09:30

Client Name: GHDHouston **Received by:** Corey Grandits

Completed By:	/S/ Nelson D. Dusara	27-Oct-2023 00:25	**Reviewed by:**	/S/ Nieka.Carson	27-Oct-2023 10:25
	eSignature	Date/Time		eSignature	Date/Time

Matrices: Soil/Water Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	3 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:309098 , 309096 , 309097
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	3.0/2.9 C UC/C	IR 31
Cooler(s)/Kit(s):	51050	
Date/Time sample(s) sent to storage:	OCT/26/2023 16:40	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Form

Page _____ of _____

COC ID: 309098

HS23101721

GHD

12603935 - SU O-6 2023

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	E-19002-GL-21300014 Stacy Boul	Project Name	12603935 - SU O-6 2023	A	300_S (300 Cl)
Work Order		Project Number	12603935	B	8015_GRO_S (8015 TPH-GRO)
Company Name	GHD	Bill To Company	Energy Transfer	C	8015M_S_LL (8015 TPH DRO/ORO)
Send Report To	Blair Owen	Invoice Attn	Stacy Boultinghouse	D	8260_S (8260 BTEX)
Address	11451 Katy Fwy Suite 400	Address	P.O Box 132400	E	MOIST_ASTM (Moisture %)
				F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Dallas TX 75313	G	
Phone	(713) 734-3090	Phone		H	
Fax	(713) 734-3391	Fax		I	
e-Mail Address	blair.owen@ghd.com	e-Mail Address	Stacy.Boultinghouse@energytransfer.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-3(0ft)-20231023	10/23/23	1410	S	8	1											
2	SB-3(5ft)-20231023		1415	S	8	1											
3	SB-3(10ft)-20231023		1420	S	8	1											
4	SB-3(15ft)-20231023		1425	S	8	1											
5	SB-3(20ft)-20231023		1430	S	8	1											
6	SB-3(25ft)-20231023		1435	S	8	1											
7	SB-3(30ft)-20231023		1440	S	8	1											
8	Waste-char-20231023		1500	S	8	1											
9	trip blank				8	1											
10	temp blank				8	1											

Sampler(s) Please Print & Sign: Elizabeth Fain

Shipment Method:

Required Turnaround Time: (Check Box) [X] STD 10 Wk Days [ ] 5 Wk Days [ ] 2 Wk Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by: Elizabeth Fain	Date: 10/24/23	Time: 1600	Received by:	Notes: ETC O-6 Lea County	
Relinquished by:	Date:	Time:	Received by (Laboratory): CG 10-25-23 0830	Cooler ID	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	S1090	3.0c
				1R31	

QC Package: (Check One Box Below)
[X] Level II Std QC
[ ] Level III Std QC/Raw Data
[ ] Level IV SW846/CLP
[ ] Other
[ ] TRRP Checklist
[ ] TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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

CVF-0.1

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Everett, WA +1 425 356 2600
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Chain of Custody Form

Page _____ of _____

COC ID: 309096

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	E-19002-GL-21300014 Stacy Boul	Project Name	12603935 - SU O-6 2023	A	300_S (300 Cl)
Work Order		Project Number	12603935	B	8015_GRO_S (8015 TPH-GRO)
Company Name	GHD	Bill To Company	Energy Transfer	C	8015M_S_LL (8015 TPH DRO/ORO)
Send Report To	Blair Owen	Invoice Attn	Stacy Boultinghouse	D	8260_S (8260 BTEX)
Address	11451 Katy Fwy Suite 400	Address	P.O Box 132400	E	MOIST ASTM (Moisture %)
				F	
City/State/Zip	Houston, TX 77079	City/State/Zip	Dallas TX 75313	G	
Phone	(713) 734-3090	Phone		H	
Fax	(713) 734-3391	Fax		I	
e-Mail Address	blair.owen@ghd.com	e-Mail Address	Stacy.Boultinghouse@energytransfer.com	J	

HS23101721
GHD
12603935 - SU O-6 2023

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Void
1	SB-4(5ft)-20231023	10/23/23	1125	S	8	1											
2	SB-4(7ft)-20231023		1130	S	8	1											
3	SB-4(10ft)-20231023		1135	S	8	1											
4	SB-4(15ft)-20231023		1140	S	8	1											
5	SB-4(20ft)-20231023		1145	S	8	1											
6	SB-4(25ft)-20231023		1150	S	8	1											
7	SB-4(30ft)-20231023		1155	S	8	1											
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Elizabeth Fair

Shipment Method:

Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Elizabeth Fair	10/24/23	1600	
Relinquished by:	Date:	Time:	Received by (Laboratory):
			LG 10-24-23 0436
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: ETC O-6 Lea County

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
☒ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Everett, WA +1 425 356 2600
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Chain of Custody Form

Page _____ of _____

COC ID: 309097

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	E-19002-GL-21300014 Stacy Boul	Project Name	12603935 - SU O-6 2023	A	300_S (300 Cl)
Work Order		Project Number	12603935	B	8015_GRO_S (8015 TPH-GRO)
Company Name	GHD	Bill To Company	Energy Transfer	C	8015M_S_LL (8015 TPH DRO/ORO)
Send Report To	Blair Owen	Invoice Attn	Stacy Boultinghouse	D	8260_S (8260 BTEX)
Address	11451 Katy Fwy Suite 400	Address	P.O Box 132400	E	MOIST_ASTM (Moisture %)
City/State/Zip	Houston, TX 77079	City/State/Zip	Dallas TX 75313	F	
Phone	(713) 734-3090	Phone		G	
Fax	(713) 734-3391	Fax		H	
e-Mail Address	blair.owen@ghd.com	e-Mail Address	Stacy.Boultinghouse@energytransfer.com	I	
				J	

HS23101721
GHD
12603935 - SU O-6 2023

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	J
1	SB-5 (0 ft) - 20231023	10/23/23	1215	S	8	1						
2	SB-5 (5 ft) - 20231023		1220	S	8	1						
3	SB-5 (10 ft) - 20231023		1225	S	8	1						
4	SB-5 (15 ft) - 20231023		1230	S	8	1						
5	SB-5 (20 ft) - 20231023		1235	S	8	1						
6	SB-5 (25 ft) - 20231023		1240	S	8	1						
7	SB-5 (30 ft) - 20231023		~~1245~~ 1250	S	8	1						
8												
9												
10												

Sampler(s) Please Print & Sign: Elizabeth Fain

Shipment Method:

Required Turnaround Time: (Check Box) [X] STD 10 Wk Days [ ] 5 Wk Days [ ] 2 Wk Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Elizabeth Fain	10/24/23	1000	
Relinquished by:	Date:	Time:	Received by (Laboratory):
			CA 10-25-23 0430
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: ETC O-6 Lea County

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
[X] Level II Std QC
[ ] Level III Std QC/Raw Date
[ ] Level IV SW846/CLP
[ ] Other
[ ] TRRP Checklist
[ ] TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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

51050

CUSTODY SEAL

Date: 10/24/23 Time: 1600
Name: Elizabeth Fain
Company: GHD

Seal Broken By:
JM
Date:
10/25/23

51050 OCT 25 2023

ELIZABETH FAIN
GHD
5313 GRANITE AVE NE

ALBUQUERQUE, NM 87110
UNITED STATES US

ACTWGT: 1.00 LB MAN
CAD: 0166029/CAFE3753

TO SAMPLE RECEIVING
ALS LIMITED
10450 STANCLIFF RD STE 210

51050

HOUSTON TX 77099
(281) 530-5666
REF: 12603935-SU-0-6=BO 96431-JG

RMA:

FedEx Express

FedEx
TRK# 0221 6220 8005 5303

WED - 25 OCT 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH

#5628003 10/24 583J1/BC88

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

December 26, 2023

Blair Owen
GHD
11451 Katy Fwy
Suite 400
Houston, TX 77079

Work Order: **HS23121140**

Laboratory Results for: **12603935 - SU O-6 2023**

Dear Blair Owen,

ALS Environmental received 5 sample(s) on Dec 16, 2023 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: DAYNA.FISHER
James Guin

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
Work Order: HS23121140

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23121140-01	12603935_TB01	Water		15-Dec-2023 10:00	16-Dec-2023 10:25	☐
HS23121140-02	MW-1-20231215	GW		15-Dec-2023 10:00	16-Dec-2023 10:25	☐
HS23121140-03	MW-2-20231215	GW		15-Dec-2023 10:35	16-Dec-2023 10:25	☐
HS23121140-04	MW-3-20231215	GW		15-Dec-2023 09:40	16-Dec-2023 10:25	☐
HS23121140-05	DUP-01-20231215	GW		15-Dec-2023 00:00	16-Dec-2023 10:25	☐

ALS Houston, US Date: 26-Dec-23

Client: GHD **CASE NARRATIVE**
Project: 12603935 - SU O-6 2023
Work Order: HS23121140

Work Order Comments

• Login Comments: Sample Dup-01-20231215 vials have headspace.

GCMS Volatiles by Method SW8260

Batch ID: R454788

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: R454686

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: R454664

Sample ID: HS23121125-03MS

• MS and MSD are for an unrelated sample

WetChemistry by Method E300

Batch ID: R455027

Sample ID: HS23121105-01MS

• MS and MSD are for an unrelated sample (Chloride)

Sample ID: HS23121328-01MS

• MS and MSD are for an unrelated sample (Chloride)

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: 12603935_TB01
Collection Date: 15-Dec-2023 10:00

ANALYTICAL REPORT
WorkOrder:HS23121140
Lab ID:HS23121140-01
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: PC
Benzene		U	0.0010	mg/L	1	19-Dec-2023 23:20
Ethylbenzene		U	0.0010	mg/L	1	19-Dec-2023 23:20
Toluene		U	0.0010	mg/L	1	19-Dec-2023 23:20
Xylenes, Total		U	0.0030	mg/L	1	19-Dec-2023 23:20
Surr: 1,2-Dichloroethane-d4	*108*		*70-126*	*%REC*	*1*	*19-Dec-2023 23:20*
Surr: 4-Bromofluorobenzene	*93.4*		*77-113*	*%REC*	*1*	*19-Dec-2023 23:20*
Surr: Dibromofluoromethane	*104*		*77-123*	*%REC*	*1*	*19-Dec-2023 23:20*
Surr: Toluene-d8	*101*		*82-127*	*%REC*	*1*	*19-Dec-2023 23:20*

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

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: MW-1-20231215
Collection Date: 15-Dec-2023 10:00

ANALYTICAL REPORT
WorkOrder:HS23121140
Lab ID:HS23121140-02
Matrix:GW

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: FT
Benzene		U	0.0010	mg/L	1	21-Dec-2023 02:53
Ethylbenzene		U	0.0010	mg/L	1	21-Dec-2023 02:53
Toluene		U	0.0010	mg/L	1	21-Dec-2023 02:53
Xylenes, Total		U	0.0030	mg/L	1	21-Dec-2023 02:53
Surr: 1,2-Dichloroethane-d4	*88.4*		*70-126*	*%REC*	*1*	*21-Dec-2023 02:53*
Surr: 4-Bromofluorobenzene	*100*		*77-113*	*%REC*	*1*	*21-Dec-2023 02:53*
Surr: Dibromofluoromethane	*85.4*		*77-123*	*%REC*	*1*	*21-Dec-2023 02:53*
Surr: Toluene-d8	*102*		*82-127*	*%REC*	*1*	*21-Dec-2023 02:53*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**2,190**		**25.0**	**mg/L**	50	22-Dec-2023 17:39

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

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: MW-2-20231215
Collection Date: 15-Dec-2023 10:35

ANALYTICAL REPORT
WorkOrder:HS23121140
Lab ID:HS23121140-03
Matrix:GW

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: FT
Benzene		U	0.0010	mg/L	1	21-Dec-2023 03:15
Ethylbenzene		U	0.0010	mg/L	1	21-Dec-2023 03:15
Toluene		U	0.0010	mg/L	1	21-Dec-2023 03:15
Xylenes, Total		U	0.0030	mg/L	1	21-Dec-2023 03:15
Surr: 1,2-Dichloroethane-d4	*89.3*		*70-126*	*%REC*	*1*	*21-Dec-2023 03:15*
Surr: 4-Bromofluorobenzene	*100*		*77-113*	*%REC*	*1*	*21-Dec-2023 03:15*
Surr: Dibromofluoromethane	*86.7*		*77-123*	*%REC*	*1*	*21-Dec-2023 03:15*
Surr: Toluene-d8	*102*		*82-127*	*%REC*	*1*	*21-Dec-2023 03:15*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**2,000**		**25.0**	**mg/L**	50	22-Dec-2023 17:44

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

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: MW-3-20231215
Collection Date: 15-Dec-2023 09:40

ANALYTICAL REPORT
WorkOrder:HS23121140
Lab ID:HS23121140-04
Matrix:GW

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
Benzene		U	0.0010	mg/L	1	20-Dec-2023 04:36
Ethylbenzene		U	0.0010	mg/L	1	20-Dec-2023 04:36
Toluene		U	0.0010	mg/L	1	20-Dec-2023 04:36
Xylenes, Total		U	0.0030	mg/L	1	20-Dec-2023 04:36
Surr: 1,2-Dichloroethane-d4	*118*		*70-126*	*%REC*	*1*	*20-Dec-2023 04:36*
Surr: 4-Bromofluorobenzene	*91.3*		*77-113*	*%REC*	*1*	*20-Dec-2023 04:36*
Surr: Dibromofluoromethane	*113*		*77-123*	*%REC*	*1*	*20-Dec-2023 04:36*
Surr: Toluene-d8	*101*		*82-127*	*%REC*	*1*	*20-Dec-2023 04:36*
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**				Analyst: TH
Chloride	**2,020**		**25.0**	**mg/L**	50	22-Dec-2023 17:50

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

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
Sample ID: DUP-01-20231215
Collection Date: 15-Dec-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23121140
Lab ID:HS23121140-05
Matrix:GW

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: FT
Benzene		U	0.0010	mg/L	1	19-Dec-2023 16:48
Ethylbenzene		U	0.0010	mg/L	1	19-Dec-2023 16:48
Toluene		U	0.0010	mg/L	1	19-Dec-2023 16:48
Xylenes, Total		U	0.0030	mg/L	1	19-Dec-2023 16:48
Surr: 1,2-Dichloroethane-d4	*93.5*		*70-126*	*%REC*	*1*	*19-Dec-2023 16:48*
Surr: 4-Bromofluorobenzene	*99.4*		*77-113*	*%REC*	*1*	*19-Dec-2023 16:48*
Surr: Dibromofluoromethane	*86.7*		*77-123*	*%REC*	*1*	*19-Dec-2023 16:48*
Surr: Toluene-d8	*99.5*		*82-127*	*%REC*	*1*	*19-Dec-2023 16:48*

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

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23121140

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R454664 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** GW	
HS23121140-05	DUP-01-20231215	15 Dec 2023 00:00			19 Dec 2023 16:48	1
Batch ID: R454686 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** GW	
HS23121140-04	MW-3-20231215	15 Dec 2023 09:40			20 Dec 2023 04:36	1
Batch ID: R454686 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** Water	
HS23121140-01	12603935_TB01	15 Dec 2023 10:00			19 Dec 2023 23:20	1
Batch ID: R454788 (0)	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** GW	
HS23121140-02	MW-1-20231215	15 Dec 2023 10:00			21 Dec 2023 02:53	1
HS23121140-03	MW-2-20231215	15 Dec 2023 10:35			21 Dec 2023 03:15	1
Batch ID: R455027 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** GW	
HS23121140-02	MW-1-20231215	15 Dec 2023 10:00			22 Dec 2023 17:39	50
HS23121140-03	MW-2-20231215	15 Dec 2023 10:35			22 Dec 2023 17:44	50
HS23121140-04	MW-3-20231215	15 Dec 2023 09:40			22 Dec 2023 17:50	50

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23121140

QC BATCH REPORT

Batch ID: R454664 (0) **Instrument: VOA12** **Method: LOW LEVEL VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKW-231219** Units: **ug/L** Analysis Date: **19-Dec-2023 15:20**
Client ID: Run ID: **VOA12_454664** SeqNo: **7739135** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	*44.65*	*1.0*	*50*	*0*	*89.3*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*50.57*	*1.0*	*50*	*0*	*101*	*77 - 113*				
Surr: Dibromofluoromethane	*44.65*	*1.0*	*50*	*0*	*89.3*	*73 - 126*				
Surr: Toluene-d8	*50.6*	*1.0*	*50*	*0*	*101*	*81 - 120*				

LCS Sample ID: **VLCSW-231219** Units: **ug/L** Analysis Date: **19-Dec-2023 14:34**
Client ID: Run ID: **VOA12_454664** SeqNo: **7739134** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	17.95	1.0	20	0	89.7	74 - 120				
Ethylbenzene	18.2	1.0	20	0	91.0	77 - 117				
Toluene	21.27	1.0	20	0	106	77 - 118				
Xylenes, Total	57.11	3.0	60	0	95.2	75 - 122				
Surr: 1,2-Dichloroethane-d4	*44.77*	*1.0*	*50*	*0*	*89.5*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*50.34*	*1.0*	*50*	*0*	*101*	*77 - 113*				
Surr: Dibromofluoromethane	*42.99*	*1.0*	*50*	*0*	*86.0*	*73 - 126*				
Surr: Toluene-d8	*49.84*	*1.0*	*50*	*0*	*99.7*	*81 - 120*				

MS Sample ID: **HS23121125-03MS** Units: **ug/L** Analysis Date: **19-Dec-2023 16:04**
Client ID: Run ID: **VOA12_454664** SeqNo: **7739137** PrepDate: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1324	100	2000	0	66.2	70 - 127				S
Ethylbenzene	2345	100	2000	1109	61.8	70 - 124				S
Toluene	1561	100	2000	0	78.1	70 - 123				
Xylenes, Total	5458	300	6000	1508	65.8	70 - 130				S
Surr: 1,2-Dichloroethane-d4	*4473*	*100*	*5000*	*0*	*89.5*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*5120*	*100*	*5000*	*0*	*102*	*77 - 113*				
Surr: Dibromofluoromethane	*4256*	*100*	*5000*	*0*	*85.1*	*77 - 123*				
Surr: Toluene-d8	*5096*	*100*	*5000*	*0*	*102*	*82 - 127*				

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23121140

QC BATCH REPORT

Batch ID: R454664 (0) **Instrument:** VOA12 **Method:** LOW LEVEL VOLATILES BY SW8260C

MSD Sample ID: **HS23121125-03MSD** Units: **ug/L** Analysis Date: **19-Dec-2023 16:26**
Client ID: Run ID: **VOA12_454664** SeqNo: **7739138** PrepDate: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1554	100	2000	0	77.7	70 - 127	1324	16	20	
Ethylbenzene	2600	100	2000	1109	74.6	70 - 124	2345	10.3	20	
Toluene	1779	100	2000	0	88.9	70 - 123	1561	13	20	
Xylenes, Total	5912	300	6000	1508	73.4	70 - 130	5458	8	20	
Surr: 1,2-Dichloroethane-d4	*4600*	*100*	*5000*	*0*	*92.0*	*70 - 126*	*4473*	*2.78*	*20*	
Surr: 4-Bromofluorobenzene	*4939*	*100*	*5000*	*0*	*98.8*	*77 - 113*	*5120*	*3.6*	*20*	
Surr: Dibromofluoromethane	*4556*	*100*	*5000*	*0*	*91.1*	*77 - 123*	*4256*	*6.79*	*20*	
Surr: Toluene-d8	*5029*	*100*	*5000*	*0*	*101*	*82 - 127*	*5096*	*1.31*	*20*	

The following samples were analyzed in this batch: HS23121140-05

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23121140

QC BATCH REPORT

Batch ID: R454686 (0) **Instrument: VOA11** **Method: LOW LEVEL VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKW-231219** Units: **ug/L** Analysis Date: **19-Dec-2023 22:38**
Client ID: Run ID: **VOA11_454686** SeqNo: **7744611** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	*52.07*	*1.0*	*50*	*0*	*104*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*47.96*	*1.0*	*50*	*0*	*95.9*	*77 - 113*				
Surr: Dibromofluoromethane	*51.11*	*1.0*	*50*	*0*	*102*	*73 - 126*				
Surr: Toluene-d8	*51.74*	*1.0*	*50*	*0*	*103*	*81 - 120*				

LCS Sample ID: **VLCSW-231219** Units: **ug/L** Analysis Date: **19-Dec-2023 21:35**
Client ID: Run ID: **VOA11_454686** SeqNo: **7744609** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.6	1.0	20	0	103	74 - 120				
Ethylbenzene	22.24	1.0	20	0	111	77 - 117				
Toluene	21.47	1.0	20	0	107	77 - 118				
Xylenes, Total	67.85	3.0	60	0	113	75 - 122				
Surr: 1,2-Dichloroethane-d4	*48.96*	*1.0*	*50*	*0*	*97.9*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*51.22*	*1.0*	*50*	*0*	*102*	*77 - 113*				
Surr: Dibromofluoromethane	*49.14*	*1.0*	*50*	*0*	*98.3*	*73 - 126*				
Surr: Toluene-d8	*51.46*	*1.0*	*50*	*0*	*103*	*81 - 120*				

LCSD Sample ID: **VLCSDW-231219** Units: **ug/L** Analysis Date: **19-Dec-2023 21:56**
Client ID: Run ID: **VOA11_454686** SeqNo: **7744610** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.53	1.0	20	0	103	74 - 120	20.6	0.318	20	
Ethylbenzene	22.82	1.0	20	0	114	77 - 117	22.24	2.61	20	
Toluene	21.57	1.0	20	0	108	77 - 118	21.47	0.449	20	
Xylenes, Total	68.88	3.0	60	0	115	75 - 122	67.85	1.5	20	
Surr: 1,2-Dichloroethane-d4	*47.39*	*1.0*	*50*	*0*	*94.8*	*70 - 123*	*48.96*	*3.26*	*20*	
Surr: 4-Bromofluorobenzene	*50.92*	*1.0*	*50*	*0*	*102*	*77 - 113*	*51.22*	*0.601*	*20*	
Surr: Dibromofluoromethane	*47.14*	*1.0*	*50*	*0*	*94.3*	*73 - 126*	*49.14*	*4.16*	*20*	
Surr: Toluene-d8	*50.81*	*1.0*	*50*	*0*	*102*	*81 - 120*	*51.46*	*1.28*	*20*	

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23121140

QC BATCH REPORT

Batch ID:	R454686 (0)	Instrument:	VOA11	Method:	LOW LEVEL VOLATILES BY SW8260C

The following samples were analyzed in this batch: HS23121140-01 HS23121140-04

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23121140

QC BATCH REPORT

Batch ID: R454788 (0) **Instrument: VOA12** **Method: LOW LEVEL VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKW-231220** Units: **ug/L** Analysis Date: **20-Dec-2023 21:16**
Client ID: Run ID: **VOA12_454788** SeqNo: **7741980** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	*45.96*	*1.0*	*50*	*0*	*91.9*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*49.51*	*1.0*	*50*	*0*	*99.0*	*77 - 113*				
Surr: Dibromofluoromethane	*43.4*	*1.0*	*50*	*0*	*86.8*	*73 - 126*				
Surr: Toluene-d8	*51.04*	*1.0*	*50*	*0*	*102*	*81 - 120*				

LCS Sample ID: **VLCSW-231220** Units: **ug/L** Analysis Date: **20-Dec-2023 20:31**
Client ID: Run ID: **VOA12_454788** SeqNo: **7741979** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	17.13	1.0	20	0	85.7	74 - 120				
Ethylbenzene	16.78	1.0	20	0	83.9	77 - 117				
Toluene	20.63	1.0	20	0	103	77 - 118				
Xylenes, Total	53	3.0	60	0	88.3	75 - 122				
Surr: 1,2-Dichloroethane-d4	*42.99*	*1.0*	*50*	*0*	*86.0*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*49.76*	*1.0*	*50*	*0*	*99.5*	*77 - 113*				
Surr: Dibromofluoromethane	*43.02*	*1.0*	*50*	*0*	*86.0*	*73 - 126*				
Surr: Toluene-d8	*50.89*	*1.0*	*50*	*0*	*102*	*81 - 120*				

MS Sample ID: **HS23121058-02MS** Units: **ug/L** Analysis Date: **20-Dec-2023 23:09**
Client ID: Run ID: **VOA12_454788** SeqNo: **7741985** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.17	1.0	20	5.089	85.4	70 - 127				
Ethylbenzene	17.53	1.0	20	0	87.7	70 - 124				
Toluene	20.83	1.0	20	0	104	70 - 123				
Xylenes, Total	53.5	3.0	60	0	89.2	70 - 130				
Surr: 1,2-Dichloroethane-d4	*44.67*	*1.0*	*50*	*0*	*89.3*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*49.34*	*1.0*	*50*	*0*	*98.7*	*77 - 113*				
Surr: Dibromofluoromethane	*43.36*	*1.0*	*50*	*0*	*86.7*	*77 - 123*				
Surr: Toluene-d8	*50.05*	*1.0*	*50*	*0*	*100*	*82 - 127*				

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23121140

QC BATCH REPORT

Batch ID: R454788 (0) **Instrument:** VOA12 **Method:** LOW LEVEL VOLATILES BY SW8260C

MSD Sample ID: **HS23121058-02MSD** Units: **ug/L** Analysis Date: **20-Dec-2023 23:31**
Client ID: Run ID: **VOA12_454788** SeqNo: **7741986** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	22.44	1.0	20	5.089	86.7	70 - 127	22.17	1.21	20	
Ethylbenzene	17.22	1.0	20	0	86.1	70 - 124	17.53	1.83	20	
Toluene	20.62	1.0	20	0	103	70 - 123	20.83	1	20	
Xylenes, Total	52.3	3.0	60	0	87.2	70 - 130	53.5	2.26	20	
Surr: 1,2-Dichloroethane-d4	*44.01*	*1.0*	*50*	*0*	*88.0*	*70 - 126*	*44.67*	*1.49*	*20*	
Surr: 4-Bromofluorobenzene	*48.8*	*1.0*	*50*	*0*	*97.6*	*77 - 113*	*49.34*	*1.11*	*20*	
Surr: Dibromofluoromethane	*41.16*	*1.0*	*50*	*0*	*82.3*	*77 - 123*	*43.36*	*5.21*	*20*	
Surr: Toluene-d8	*51.21*	*1.0*	*50*	*0*	*102*	*82 - 127*	*50.05*	*2.29*	*20*	

The following samples were analyzed in this batch: HS23121140-02 HS23121140-03

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: HS23121140

QC BATCH REPORT

Batch ID: R455027 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **22-Dec-2023 14:13**
Client ID: Run ID: **ICS-Integrion_455027** SeqNo: **7747377** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **22-Dec-2023 14:19**
Client ID: Run ID: **ICS-Integrion_455027** SeqNo: **7747378** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.38	0.500	20	0	102	90 - 110				

MS Sample ID: **HS23121328-01MS** Units: **mg/L** Analysis Date: **22-Dec-2023 15:00**
Client ID: Run ID: **ICS-Integrion_455027** SeqNo: **7747384** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	145.5	0.500	10	138.8	67.4	80 - 120				SEO

MS Sample ID: **HS23121105-01MS** Units: **mg/L** Analysis Date: **22-Dec-2023 14:37**
Client ID: Run ID: **ICS-Integrion_455027** SeqNo: **7747380** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	119.3	0.500	10	114.5	48.1	80 - 120				SEO

MSD Sample ID: **HS23121328-01MSD** Units: **mg/L** Analysis Date: **22-Dec-2023 15:06**
Client ID: Run ID: **ICS-Integrion_455027** SeqNo: **7747385** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	145.3	0.500	10	138.8	65.9	80 - 120	145.5	0.103	20	SEO

MSD Sample ID: **HS23121105-01MSD** Units: **mg/L** Analysis Date: **22-Dec-2023 14:43**
Client ID: Run ID: **ICS-Integrion_455027** SeqNo: **7747381** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	119.8	0.500	10	114.5	53.8	80 - 120	119.3	0.483	20	SEO

The following samples were analyzed in this batch: HS23121140-02 HS23121140-03 HS23121140-04

ALS Houston, US Date: 26-Dec-23

Client: GHD
Project: 12603935 - SU O-6 2023
WorkOrder: **HS23121140**

QUALIFIERS, ACRONYMS, UNITS

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

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

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231-23-32	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US Date: 26-Dec-23

Sample Receipt Checklist

Work Order ID: HS23121140 **Date/Time Received:** 16-Dec-2023 10:25

Client Name: GHDHouston **Received by:** Corey Grandits

Completed By: /S/ Belinda Gomez (eSignature) 18-Dec-2023 11:26 (Date/Time) **Reviewed by:** (eSignature) (Date/Time)

Matrices: Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:304561
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.8uc/3.7c	ir31	
Cooler(s)/Kit(s):	47058		
Date/Time sample(s) sent to storage:	12/18/23 1127		
Water - VOA vials have zero headspace?	Yes ☐	No ☑	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes: Login Comments: Sample Dup-01-20231215 vials have headspace.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Middletown, PA +1 717 944 5541
Spring City, PA +1 610 948 4903
Salt Lake City, UT +1 801 266 7700
South Charleston, WV +1 304 356 3168
York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 304561

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis
Purchase Order	E-19002-GL-21300014 Stacy Boul	Project Name	12603935 - SU O-6 2023	A 8260_LL_W (8260 BTEX) [3xVOA HCl]
Work Order		Project Number	12603649	B 300_W (300 Cl) [120ml P Neat]
Company Name	GHD	Bill To Company	Energy Transfer	C 8260_LL_W (Trip Blank: 8260 BTEX) [2xVOA HCl]
Send Report To	Blair Owen	Invoice Attn	Stacy Boultinghouse	D
Address	11451 Katy Fwy Suite 400	Address	P.O Box 132400	E F
City/State/Zip	Houston, TX 77079	City/State/Zip	Dallas TX 75313	G
Phone	(713) 734-3090	Phone		H
Fax	(713) 734-3391	Fax		I
e-Mail Address	blair.owen@ghd.com	e-Mail Address	Stacy.Boultinghouse@energytransfer.co	J

HS23121140
GHD
12603935 - SU O-6 2023

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	12603935_TB01	12/15/23	—	Water	1	2			X								
2	MW-1-20231215	12/15/23	1600	GW	1,8	4	X	X									
3	MW-2-20231215	12/15/23	1035	GW	1,8	4	X	X									
4	MW-3-20231215	12/15/23	0940	GW	1,8	4	X	X									
5	DUP-01-20231215	12/15/23	—	GW	1,8	3	X										
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Elizabeth Fain

Shipment Method: FedEx cooler

Required Turnaround Time: (Check Box) [X] STD 10 Wk Days [ ] 5 Wk Days [ ] 2Wk Days [ ] 24 Hour [ ] Other

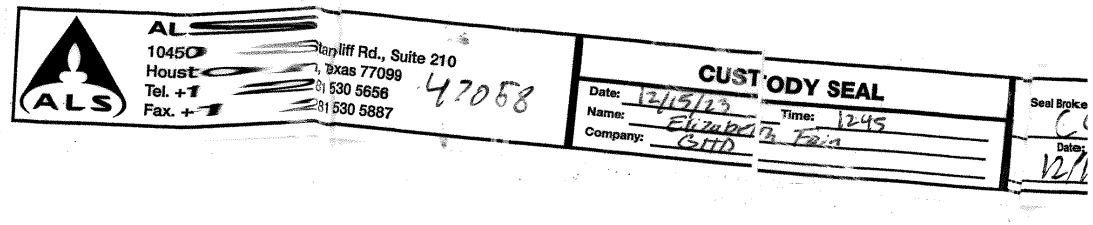
Results Due Date:

Relinquished by: Elizabeth Fain	Date: 12/15/23	Time: 1245	Received by:	Notes: ETC O-6 Lea County	
Relinquished by:	Date:	Time:	Received by (Laboratory): LH 12-16-23 1025	Cooler ID: 47058 / 12131	Cooler Temp: 3.8°
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

QC Package: (Check One Box Below)
[X] Level II Std QC [ ] TRRP CheckList
[ ] Level III Std QC/Raw Data [ ] TRRP Level IV
[ ] Level IV SW846/CLP
[ ] Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 367288

CONDITIONS

Operator: ETC Texas Pipeline, Ltd. 8111 Westchester Drive Dallas, TX 75225	OGRID: 371183
	Action Number: 367288
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2023 Annual Groundwater Monitoring Report: content satisfactory 1. Continue to conduct groundwater monitoring on a semi-annual schedule as requested. 2. BTEX may be suspended from the sampling analyses as there have been at least eight consecutive quarters sampled below the WQCC human health standards. 3. Install absorbent socks for passive recovery in the SVE 3 and SVE 1 4. If not already completed, please continue with addition soil sampling as proposed for further delineation at depth greater than 30 ft. 5. Submit the 2024 annual monitoring report with recommendations from findings for soil and/or groundwater results.	8/20/2024