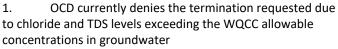
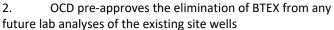
Received by OCD: 3/31/

Review of 2020 Annual Groundwater Monitoring Report and 2021 Work Scope: **Content satisfactory** 





3. OCD pre-approves semi-annual monitor well sampling for 2022

4. OCD requires the installation of a background well (temporary or permanent) to evaluate chloride and TDS. Deadline for the installation is June 30, 2022

5. Development and sampling of the up-gradient monitor or temporary well will be analyzed initially for BTEX per US EPA Method 8260B (full suite), TDS, and chlorides

6. OCD will re-assess the site for closure upon receiving the initial monitor or temporary well lab report Submit summarized activities completed and their results in a 2021 Annual Report. Submittal to OCD expected no later than March 31,2022.

2020 Annual Groundwater

Monitoring Report and

2021 Work Scope

O-6-1 4" Lea County, New Mexico 1RP-4643

ETC Texas Pipeline, Ltd.



By Nelson Velez at 7:57 am, Feb 16, 2022









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### 1. Introduction

This report presents the results of a soil sampling event and the groundwater monitoring events performed quarterly at the ETC Texas Pipeline, Ltd. (ETC), O-6-1 4" pipeline release (Site) throughout 2020. The Site is located within Unit J, Section 20, Township 20 South, Range 37 East, in Lea County, New Mexico (**Figure 1**). The property is owned by the New Mexico State Land Office (NMSLO). Site details can be seen on **Figure 2**.

### 1.1 Background

On March 13, 2017, a release of approximately 150 barrels (bbls) of natural gas liquids/oil was reported to the New Mexico Oil Conservation Division (NMOCD) via Form C-141. The NMOCD then notified the NMSLO. External corrosion caused an approximate 1-inch hole to develop on a section of the 0-6-1 pipeline and was the cause of the release. Approximately 50 bbls of the fluids were recovered. Impacted soil were excavated and stockpiled on-Site and the excavation backfilled. NMOCD release number 1RP-4643 was assigned.

The impacted area had been initially excavated to a depth of approximately 15 feet below ground surface (ft bgs) and soil samples were collected by ETC from two locations within the base of the excavation. Concentrations of total petroleum hydrocarbons (TPH) exceeded 100 milligrams per kilogram (mg/Kg), the Recommended Remedial Action Limit (RRAL) for the Site (based on interpreted depth to groundwater of less than 50 ft bgs) at the time of assessment.

Vertical and horizontal assessment at the Site was performed on August 29 and 30, 2017 and included the advancement of six soil borings and the installation of one groundwater monitoring well (MW). Soil samples collected at depth from the six soil borings near the release point were found to be at concentrations below laboratory reporting limits for benzene, toluene, ethylbenzene, xylenes (BTEX) and TPH. Concentrations of TPH above RRAL were recorded in borings at the following depths: MW-1 from 5-22 ft bgs, BN-1 from 10-15 ft bgs, and BE-1 and BE-2 at 10 ft bgs. Additionally, the sample collected from soil boring MW-1 from 15-17 ft bgs returned a chloride concentration of 1,100 mg/Kg, above the RRAL of 600 mg/kg for the Site.

One soil boring advanced near the release point was converted to a groundwater monitoring well, MW-1. A groundwater sample was collected from MW-1 on September 20, 2017 and analyzed for BTEX, TPH, chloride and total dissolved solids (TDS). Benzene, chloride, and TDS were detected at concentrations in excess of New Mexico Water Quality Control Commission (NMWQCC) standards. A second groundwater sample was collected from MW-1 on October 17, 2017 again with similar concentrations above standard for these constituents.

As a result, GHD installed four additional monitoring wells and two air sparge (AS) wells at the Site between December 18, 2017 and January 31, 2018. Well MW-2 was installed to the north, MW-3 to the southeast, MW-4 to the south, and MW-5 to the west of MW-1. The air sparge wells were installed north and south of the 0-6-1 line to the west of MW-1.

Soil vapor extraction (SVE) and AS pilot studies were performed at the Site on January 30 and 31, 2018. The data and observations from the pilot studies indicate that AS/SVE is capable of removing petroleum hydrocarbons from the impacted subsurface. Based on vapor



concentrations extracted during the pilot test and using conservative operating parameters, it was estimated that 75 to 90 percent of the mass currently present would be removed in less than a year of operation. However, due to difficulties accessing electricity the system was not installed and no additional SVE or AS efforts were completed in 2018.

Throughout 2019 mobile dual phase extraction (MDPE) events were performed at the Site in place of SVE and AS. One event was performed on MW-1 and two events on MW-2. Each event consisted of 8 hours where vacuum was applied to the selected well and vapors and liquids were pulled from the subsurface. The MDPE events were conducted by Talon LPE (Talon) and overseen by GHD. The MDPE equipment destroyed approximately 1.97 equivalent gallons of hydrocarbons as vapors and removed 1,622 gallons of impacted groundwater. No liquid phase hydrocarbons were observed during the MDPE events. The extracted groundwater was disposed of at a permitted disposal facility and was overseen by ETC.

Groundwater monitoring was performed quarterly by GHD in February, May, August, and November 2020. Additionally, a soil sampling event by direct push technology (DPT) was conducted in July 2020.

# 2. Groundwater Monitoring Summary, Methodology, and Analytical Results

### 2.1 Groundwater Monitoring Summary

Quarterly groundwater monitoring events were performed in 2020 during February, May, August, and November. During each monitoring event, an oil/water interface probe was used to measure depth to groundwater and to check for the presence of LNAPL. Before and after each use, the oil/water interface probe was cleaned with an Alconox®/deionized water solution and rinsed with deionized water. Groundwater level gauging data and calculated groundwater elevations for the Site are presented in **Table 1**.

Groundwater flow direction during 2020 was towards the southeast, with a slightly more eastward flow in November. Groundwater gradient calculated for each monitoring period was approximately 0.0027 in February, 0.0022 in May, 0.0034 in August, and 0.0018 feet per foot (ft/ft) November 2020. Groundwater elevations, when compared to elevations at each well measured during the same quarter in 2019, generally declined on average during the first and fourth quarters while rising during the second and third quarters in 2020. A groundwater gradient map has been prepared for each groundwater monitoring event and are included as **Figures 3**, **4**, **5**, and **6**.

### 2.2 Groundwater Monitoring Methodology

During the 2020 quarterly groundwater monitoring events, monitoring wells were purged of at least three well casing volumes of water, or until dry, using a dedicated, polyethylene bailer prior to sampling. Groundwater quality parameters including pH, temperature, oxidation reduction potential, and conductivity were collected using a calibrated multi-parameter groundwater quality meter and were recorded on groundwater sampling field forms. A summary of field parameters is presented as **Table 2**.



Groundwater samples were placed in laboratory prepared bottles, packed on ice and shipped under chain-of-custody documentation to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico. Groundwater samples were analyzed for BTEX by Environmental Protection Agency (EPA) Method 8260, chloride by EPA Method 300.0, and TDS by Standard Method 2540.

### 2.3 Groundwater Monitoring Analytical Results

Groundwater samples collected from Site wells were below the NMWQCC standard for BTEX constituents for all of the 2020 monitoring events. Groundwater samples collected from MW-1 through MW-5 have consistently exceeded the NMWQCC standard for chloride of 250 mg/L. During the most recent sampling event in November 2020, chloride concentrations in Site wells ranged between 690 mg/L (MW-3) and 760 mg/L (MW-2). Concentrations of TDS have also consistently been above the NMWQCC standard of 1,000 mg/L with most recent concentrations ranging from 1,910 mg/L (MW-5) to 2,410 mg/L (MW-4) in November 2020.

A summary of groundwater laboratory analytical results is presented in **Table 3** and shown on **Figure 7**. Corresponding laboratory analytical reports are included as **Appendix A**.

# 3. Direct Push Technology Soil Sampling

A soil sampling event performed by DPT was completed on July 14, 2020. Discreet soil samples were collected during the one-day event to assess if current Site soil concentrations are below 100 mg/Kg TPH and 600 mg/Kg chloride, the Site-specific cleanup standards as described in the New Mexico Administrative Code (NMAC), Title 19, Chapter 15, Part 29 (19.15.29), Table 1 – Closure Criteria for Soils Impacted by a Release, for a site with groundwater less than 50 ft bgs.

Soil samples were collected at 5-foot intervals to a total depth of 20 ft in borings in the general area of the release, MW-1, and soil boring BN-1 where concentrations of TPH above 100 mg/Kg of TPH have been observed (**Table 4**). Soil samples were analyzed for TPH by EPA method 8015 and chloride by EPA Method 300.0.

The majority of soil samples were found to below standard for both TPH and Chloride with two exceptions. Boring DP-1 at 20 ft bgs was found to be above standard for chloride at a concentration of 750 mg/Kg and DP-5 at 5 and 10 ft bgs were found to be above standard for TPH at concentrations of 110 mg/Kg and 120 mg/Kg, respectively. A summary of soil analytical results can be found in **Table 4**.



### 4. Conclusions and 2021 Recommendations

### 4.1 Conclusions

Based on 2020 data, GHD makes the following conclusions:

- Groundwater sampled from MW-1 through MW-5, exceeds the NMWQCC standard for chlorides and TDS.
- Data gathered from the DPT soil sampling event completed in 2020, shows that TPH in shallow soils at the Site have been addressed with the exception of soils in the area of DP-5 at a depth of 5 to 10 ft bgs.
- Chloride data gathered from the DPT soil sampling event shows that chloride concentrations in ground water only exceed Site standards in one sample collected from DP-1 at 20 ft bgs.

### 4.2 2021 Recommendations

Based on the above conclusions, GHD recommends:

- The continuation of quarterly groundwater monitoring and reporting.
- Request Site closure based on the following:
  - TPH in Site soils at a concentration of 110 to 120 mg/Kg, slightly above the Site closure standard of 100 mg/Kg, are only present from 5 to 10 ft bgs at DP-5 with approximately 10 to 15 feet of separation from groundwater.
  - One soil sample collected from DP-1 at 20 ft bgs had a concentration of chloride of 750 mg/L slightly above the 600 mg/Kg Site standard.
  - Groundwater samples collected from Site wells have been below NMWQCC standards for BTEX constituents for eight consecutive quarters.
  - Although chloride and TDS concentrations in groundwater remain elevated above NMWQCC standards at the Site, concentration remain fairly low.
  - None of the above pose an immediate threat to human life or the environment.

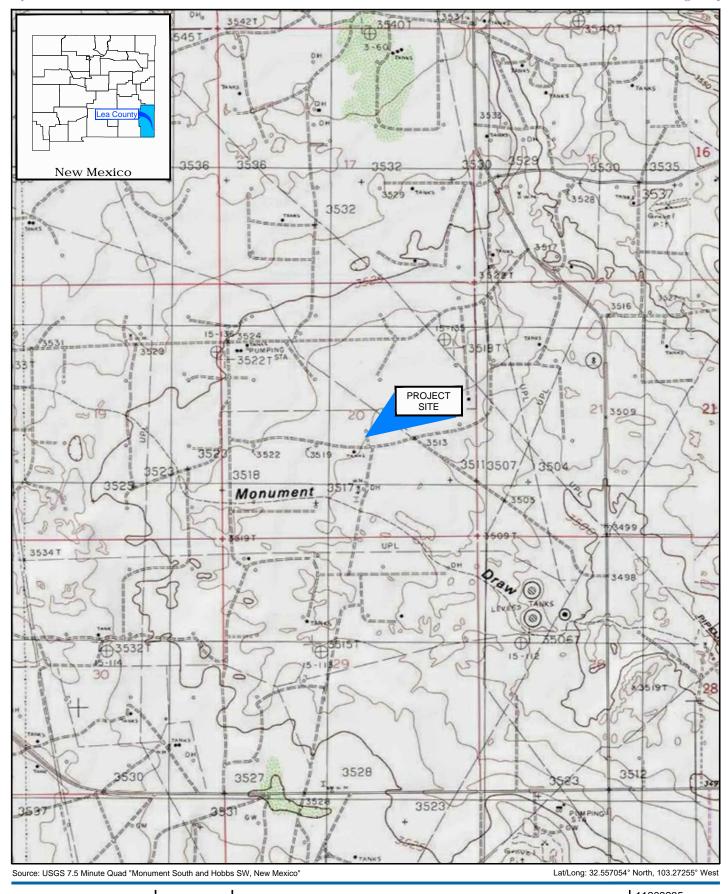
All of Which is Respectfully Submitted,

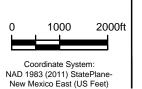
Charles Nhigh

**GHD** 

Charles Neligh Project Geologist Christine Mathews
Project Manager

**Figures** 





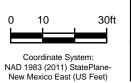


ETC TEXAS PIPELINE, LTD. LEA COUNTY, NEW MEXICO 0-6-1 4" LINE RELEASE

SITE LOCATION MAP

11209235 Feb 17, 2021





GHD

ETC TEXAS PIPELINE, LTD. LEA COUNTY, NEW MEXICO 0-6-1 4" LINE RELEASE

SITE DETAIL MAP

11209235 Mar 1, 2021





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

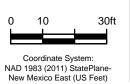


ETC TEXAS PIPELINE, LTD. LEA COUNTY, NEW MEXICO 0-6-1 4" LINE RELEASE

FEBRUARY 2020 GROUNDWATER POTENTIOMETRIC SURFACE MAP

11209235 Feb 17, 2021



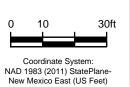


GHD

ETC TEXAS PIPELINE, LTD. LEA COUNTY, NEW MEXICO 0-6-1 4" LINE RELEASE

MAY 2020 GROUNDWATER POTENTIOMETRIC SURFACE MAP 11209235 Feb 17, 2021





GHD

ETC TEXAS PIPELINE, LTD. LEA COUNTY, NEW MEXICO 0-6-1 4" LINE RELEASE

AUGUST 2020 GROUNDWATER POTENTIOMETRIC SURFACE MAP

11209235 Feb 17, 2021



O 10 30ft

Coordinate System:
NAD 1983 (2011) StatePlaneNew Mexico East (US Feet)

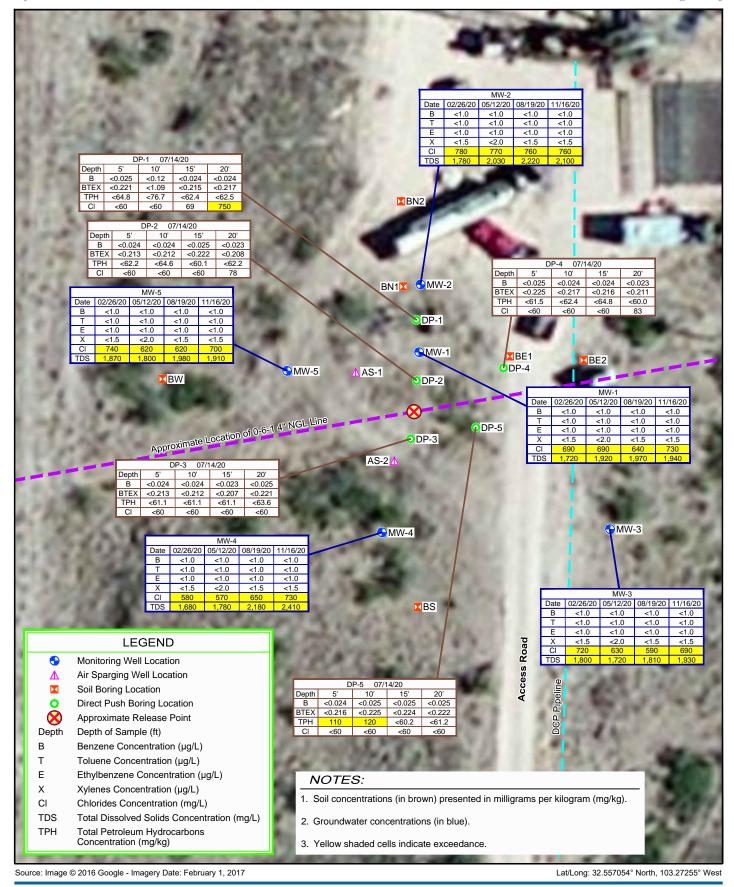


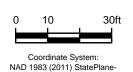
GHD

ETC TEXAS PIPELINE, LTD. LEA COUNTY, NEW MEXICO 0-6-1 4" LINE RELEASE

NOVEMBER 2020 GROUNDWATER POTENTIOMETRIC SURFACE MAP

11209235 Feb 17, 2021





New Mexico East (US Feet)





ETC TEXAS PIPELINE, LTD. LEA COUNTY, NEW MEXICO 0-6-1 4" LINE RELEASE 11209235 Mar 1, 2021

2020 CONCENTRATION MAP

**Tables** 

# Table 1 Monitoring Well Specifications and Groundwater Elevations O-6-1 4" Lea County, New Mexico ETC Texas Pipeline, Ltd.

Well	TOC Elevation	Pata	Depth to Water	GW Elevation
weii	(ft AMSL)	Date	(ft below TOC)	(ft AMSL)
		9/20/2017	24.70	3495.59
		10/17/2017	24.60	3495.69
		1/4/2018	24.43	3495.86
		4/2/2018	24.34	3495.95
		4/12/2018	24.33	3495.96
		4/26/2018	24.64	3495.65
		7/24/2018	24.96	3495.33
MW-1	3520.293	10/1/2018	25.03	3495.26
IVIVV - I	3520.293	3/28/2019	24.37	3495.92
		6/27/2019	24.63	3495.66
		9/25/2019	25.02	3495.27
		12/4/2019	24.82	3495.47
		2/25/2020	24.51	3495.78
		5/12/2020	24.27	3496.02
		8/19/2020	24.95	3495.34
		11/16/2020	25.15	3495.14
		1/4/2018	24.53	3495.76
		4/2/2018	24.41	3495.88
		4/12/2018	24.40	3496.02
		4/26/2018	24.53	3495.89
		7/24/2018	24.86	3495.56
		10/1/2018	25.13	3495.29
MW-2	3520.422	3/28/2019	24.49	3495.93
IVIVV-Z	3320.422	6/27/2019	24.71	3495.71
		9/25/2019	25.10	3495.32
		12/4/2019	24.96	3495.46
		2/25/2020	24.62	3495.80
		5/12/2020	24.35	3496.07
		8/19/2020	25.05	3495.37
		11/16/2020	25.25	3495.17
		1/4/2018	24.79	3495.66
		4/2/2018	24.34	3496.11
		4/12/2018	24.34	3496.11
		4/26/2018	24.77	3495.68
		7/24/2018	25.24	3495.21
		10/1/2018	25.40	3495.05
MW-3	3520.451	3/28/2019	24.74	3495.71
10100-0	3320.431	6/27/2019	24.96	3495.49
		9/25/2019	25.35	3495.10
		12/4/2019	25.12	3495.33
		2/25/2020	24.86	3495.59
		5/12/2020	24.61	3495.84
		8/19/2020	25.32	3495.13
		11/16/2020	25.50	3494.95

# Table 1 Monitoring Well Specifications and Groundwater Elevations O-6-1 4" Lea County, New Mexico

Lea County, New Me	XICC
ETC Texas Pipeline,	Ltd.

Well	TOC Elevation (ft AMSL)	Date	Depth to Water (ft below TOC)	GW Elevation (ft AMSL)
		1/4/2018	24.65	3495.70
		4/2/2018	24.54	3495.81
		4/12/2018	24.50	3495.85
		4/26/2018	24.42	3495.93
		7/24/2018	25.09	3495.26
		10/1/2018	25.25	3495.10
N 40 A /	0500.050	3/28/2019	24.60	3495.75
MW-4	3520.350	6/27/2019	24.83	3495.52
		9/25/2019	25.41	3494.94
		12/4/2019	24.98	3495.37
		2/25/2020	24.72	3495.63
		5/12/2020	24.45	3495.90
		8/19/2020	25.17	3495.18
		11/16/2020	25.35	3495.00
		1/4/2018	24.70	3495.87
		4/2/2018	24.58	3495.99
		4/12/2018	24.56	3496.01
		4/26/2018	24.68	3495.89
		7/24/2018	25.13	3495.44
		10/1/2018	25.31	3495.26
NA) 4/ 5	0500 570	3/28/2019	24.63	3495.94
MW-5	3520.572	6/27/2019	24.87	3495.70
		9/25/2019	25.29	3495.28
		12/4/2019	25.04	3495.53
		2/25/2020	24.76	3495.81
		5/12/2020	24.54	3496.03
		8/19/2020	25.19	3495.38
		11/16/2020	24.43	3496.14

Notes: ft AMSL=feet above mean sea level TOC=Top of Casing

Table 2
Field Parameters Summary
O-6-1 4"
Lea County, New Mexico
ETC Texas Pipeline, Ltd.

Well ID	Sample Date	Temperature (°C)	рН	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)
	9/20/2017	19.79	6.83	2302	0.42	-151.5
	10/17/2017	19.66	7.11	2587	1.88	-192.3
	1/4/2018	19.11	6.75	2605	2.59	-241.3
	4/12/2018	18.8	7.32	2841	9.37	15.8
	4/26/2018	17.86	7.18	3639		
	7/24/2018	17.62	7.06	2594	2.95	
	10/1/2018	22.01	7.51	2336	0.86	11.4
MW-1	3/28/2019	17.27	7.03	5152	1.84	-48.3
	6/27/2019	19.4	7.14	2801		
	9/25/2019	17.36	7.23			-73
	12/4/2019	18.71	7.03	2901	1.93	-260.3
	2/25/2020	18.5	7.41	2710	2.15	61.2
	5/12/2020	18.5	10.89	3250	1.2	-213
	8/19/2020	20.6	6.77	2840	1.98	76.8
	11/16/2020	20.46	7.44	3091	2.27	115.4
	1/4/2018	19.07	7.08	2627	2.9	-191.8
	4/12/2018	12/2018 18.08		2955	6.98	-50.6
	4/26/2018	17.58	7.27	3729		
	7/24/2018	18.15	6.63	2560	3.13	
	10/1/2018	23.29	7.68	2328	1.32	59.8
	3/28/2019	16.89	7	5066	2.54	-29.9
MW-2	6/27/2019	19	7.09	2715		66
	9/25/2019	17.93	7.24			-40.6
	12/4/2019					
	2/25/2020	19.1	7.42	2900	2.76	73.4
	5/12/2020	18.2	7.33	3250	1.95	-10.2
	8/19/2020	20.1	6.81	3190	1.97	12
	11/16/2020	20.03	7.33	3397	1.63	127.1
	1/4/2018	19.2	7.23	2638	3.67	-138
	4/12/2018	18.36	7.31	2979	10.99	-61.6
	4/26/2018	18	7.26	3880		
	7/24/2018	17.9	7.12	2745	2.22	
	10/1/2018	2182	7.66	2572	1.85	54.5
	3/28/2019	17.6	7.03	5489	2.26	37.4
MW-3	6/27/2019	19.8	7.13	2922		310
	9/25/2019	17.17	6.99			-96
	12/4/2019	18.95	6.91	3214	1.52	-220.1
	2/25/2020	19.6	7.35	2880	2.19	102.5
	5/12/2020	18.9	7.63	2800	1.95	-17.2
	8/19/2020	20.2	6.92	2700	1.69	10.5
	11/16/2020	20.03	7.34	3070	1.44	44.2

Page 2 of 2

Table 2
Field Parameters Summary
O-6-1 4"
Lea County, New Mexico
ETC Texas Pipeline, Ltd.

Well ID	Sample Date	Temperature (°C)	рН	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)
	1/4/2018	19.75	7.04	3081	2.15	-277.2
	4/12/2018	18.37	7.16	3688	3.78	-219.5
	4/26/2018	18.2	7.06	4750		
	7/24/2018	18.6	7.01	3632	2.55	
	10/1/2018	22.68	7.42	3213	1.09	-183.4
	3/28/2019	7.85	7	5537	2.71	-99.6
MW-4	6/27/2019	20.02	7	3376		345
	9/25/2019	18.17	6.71			-122.1
	12/4/2019	19.81	7.01	3151	1.45	-261.5
	2/25/2020	20	7.42	2720	1.64	-48.6
	5/12/2020	18.8	10.7	3070	1.03	-190.1
	8/19/2020	20.4	6.89	3250	1.27	-165.7
	11/16/2020	20.86	7.18	3680	1.23	-136.2
	1/4/2018	19.45	7.04	2955	2.06	-275.2
	4/12/2018	18.31	7.29	3131	8.93	-161.1
	4/26/2018	17.99	7.29	4024		
	7/24/2018	18.31	7.06	2953	6.17	
	10/1/2018	21.59	7.39	2636	1.35	-60.4
	3/28/2019	17.3	6.7	5726	2.49	-85.5
MW-5	6/27/2019	19.4	6.96	3060		379
	9/25/2019	17.51	6.8			-121.2
	12/4/2019	19.15	6.96	3027	1.42	-271.3
	2/25/2020	19.1	7.25	3010	1.68	0.5
	5/12/2020	18.3	9.03	2800	1.09	-115.7
	8/19/2020	20.1	6.89	2760	1.31	-65
	11/16/2020	20.55	7.24	3010	1.3	-55.4

Notes:

°C = degress celcius uS/cm = microsiemens per centimeter mg/L = milligrams per liter mV = millivolts

DO = dissolved oxygen

ORP = oxitation reduction potential

# Table 3 Groundwater Analytical Results Summary O-6-1 4" Lea County, New Mexico

ETC Texas Pipeline, Ltd.

Monitoring Date		Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Chlorides (mg/L)	TDS (mg/L)
NMWQCC	5	1000	700	620	250	1000	
	9/20/2017	200	77	87	87	580	2010
	10/17/2017	150	50	62	68	560	1620
	1/4/2018	130	<5.0	56	30	620	1720
	4/26/2018	23	<1.0	6.9	1.6	560	NA
	7/24/2018	<1.0	<1.0	<1.0	<1.5	580	1770
	10/1/2018	<1.0	<1.0	<1.0	< 2.0	630	1640
NAVA 4	3/28/2019	<1.0	<1.0	<1.0	<1.5	630	1730
MW-1	6/27/2019	<1.0	<1.0	<1.0	<2.0	640	1670
	9/25/2019	<1.0	<1.0	<1.0	<1.5	590	1800
	12/13/2019	<1.0	<1.0	<1.0	<1.5	570	1700
	2/26/2020	<1.0	<1.0	<1.0	<1.5	690	1720
	5/12/2020	<1.0	<1.0	<1.0	<1.5	690	1920
	8/19/2020	<1.0	<1.0	<1.0	<1.5	640	1970
	11/16/2020	<1.0	<1.0	<1.0	<1.5	730	1940
	1/4/2018	<1.0	<1.0	<1.0	<1.5	710	1840
	4/26/2018	<1.0	<1.0	<1.0	<1.5	590	NA
	7/24/2018	6.7	<1.0	<1.0	<1.5	540	1770
	10/1/2018	<1.0	<1.0	<1.0	< 2.0	630	1690
	3/28/2019	<1.0	<1.0	<1.0	< 2.0	630	1730
NAVA ( O	6/27/2019	<1.0	<1.0	<1.0	<2.0	640	1900
MW-2	9/25/2019	<1.0	<1.0	<1.0	<1.5	640	1980
	12/4/2019	<1.0	<1.0	<1.0	<1.5	600	1760
	2/26/2020	<1.0	<1.0	<1.0	<1.5	780	1780
	5/12/2020	<1.0	<1.0	<1.0	<1.5	770	2030
	8/19/2020	<1.0	<1.0	<1.0	<1.5	760	2220
	11/16/2020	<1.0	<1.0	<1.0	<1.5	760	2100
	1/4/2018	<1.0	<1.0	<1.0	<1.5	670	1930
	4/26/2018	<1.0	<1.0	<1.0	<1.5	280	NA
	7/24/2018	<1.0	<1.0	<1.0	<1.5	640	1980
	10/1/2018	<1.0	<1.0	<1.0	< 2.0	740	1880
	3/28/2019	1.5	<1.0	4.5	<1.5	580	1790
NAVA ( 0	6/27/2019	<1.0	<1.0	<1.0	<2.0	670	1810
MW-3	9/25/2019	<1.0	<1.0	<1.0	<1.5	650	2050
	12/4/2019	<1.0	<1.0	<1.0	<1.5	630	1910
	2/26/2020	<1.0	<1.0	<1.0	<1.5	720	1800
	5/12/2020	<1.0	<1.0	<1.0	<1.5	630	1720
	8/19/2020	<1.0	<1.0	<1.0	<1.5	590	1810
	11/16/2020	<1.0	<1.0	<1.0	<1.5	690	1930

Page 2 of 2

# Table 3 Groundwater Analytical Results Summary O-6-1 4"

Lea County, New Mexico ETC Texas Pipeline, Ltd.

Monitoring Date		Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Chlorides (mg/L)	TDS (mg/L)
NMWQCC	5	1000	700	620	250	1000	
	1/4/2018	320	<1.0	140	8.9	670	2010
	4/26/2018	170	<1.0	160	<1.5	600	NA
	7/24/2018	130	<1.0	130	<1.5	670	2430
	10/1/2018	40	<1.0	49	< 2.0	750	2430
	3/28/2019	1.5	<1.0	4.5	<1.5	580	1790
N 4) 4 / 4	6/27/2019	<1.0	<1.0	3.6	<2.0	670	2200
MW-4	9/25/2019	<1.0	<1.0	1.6	<1.5	550	2000
	12/4/2019	<1.0	<1.0	<1.0	<1.5	530	2000
	2/26/2020	<1.0	<1.0	<1.0	<1.5	580	1680
	5/12/2020	<1.0	<1.0	<1.0	<1.5	570	1780
	8/19/2020	<1.0	<1.0	<1.0	<1.5	650	2180
	11/16/2020	<1.0	<1.0	<1.0	<1.5	730	2410
	1/4/2018	130	15	77	47	690	1920
	4/26/2018	28	<1.0	26	20	590	NA
	7/24/2018	6	<1.0	5.5	<1.5	610	2080
	10/1/2018	1.2	<1.0	1.4	< 2.0	680	1950
	3/28/2019	1.5	<1.0	4.3	<1.5	570	1780
N 4) A / F	6/27/2019	<1.0	<1.0	<1.0	<2.0	640	1900
MW-5	9/25/2019	<1.0	<1.0	<1.0	<1.5	640	2030
	12/4/2019	<1.0	<1.0	<1.0	<1.5	570	1820
	2/26/2020	<1.0	<1.0	<1.0	<1.5	740	1870
	5/12/2020	<1.0	<1.0	<1.0	<1.5	620	1800
	8/19/2020	<1.0	<1.0	<1.0	<1.5	620	1980
	11/16/2020	<1.0	<1.0	<1.0	<1.5	700	1910

Notes:

TDS = Total dissolved solids

NE = Not established

mg/L = Milligrams per liter (parts per million) ug/L = Micrograms per liter (parts per billion)

NMWQCC = New Mexico Water Quality Control Commission

NA = Not analyzed

**BOLD** = Concentrations that exceed the NMWQCC groundwater quality standard

# Table 4 Soil Analytical Results Summary O-6-1 4" Lea County, New Mexico ETC Texas Pipeline, Ltd.

Sample ID	Date	Sample Depth (ft.)	Chlorides (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (C6-C10) (mg/kg)	TPH DRO (C10-C28) (mg/kg)	TPH ORO (C28-C36) (mg/kg)	Total TPH (C6-C36) (mg/kg)	Field Screen - Hydrocarbons (ppm)
NMOCD Remediation Acti	on Levels		600	10		NE		50		NE		100	NE
Floor 15.5*	3/7/2017	15.5	32	0.084	0.570	0.974	2.62	4.248	45.6	96.2	71.5	213.3	NA
Floor Middle Hole 15.5'*	3/8/2017	15.5	16	< 0.050	0.076	0.21	0.692	0.978	12.1	51.7	68.4	132.2	NA
MW-1	8/29/2017	5-7											1883
MW-1	8/29/2017	10-12											690
S-11135241-082917-MG-MW-1-15-17	8/29/2017	15-17	1,100	0.032	<0.048	<0.048	<0.096	0.032	<4.8	<9.8	<49	<63.6	0.0
S-11135241-082917-MG-MW-1-20-22	8/29/2017	20-22	170	< 0.025	< 0.050	< 0.050	< 0.099	<0.224	<5.0	<9.4	<47	<61.4	111
S-11135241-082917-MG-MW-1-25-27	8/29/2017	25-27	81	<0.024	<0.047	< 0.047	<0.094	<0.212	<4.7	<9.7	<46	<62.4	19
BN-1	8/29/2017	10											398.6
BN-1	8/29/2017	15											124.6
BN-1	8/29/2017	20											7.0
BN-2	8/29/2017	5											0.5
BN-2	8/29/2017	10											1.5
S-11135241-082917-MG-BN-2-15	8/29/2017	15	210	<0.023	<0.047	<0.047	<0.093	<0.210	<4.7	<9.2	<46	<59.9	1.7
S-11135241-082917-MG-BN2-20	8/29/2017	20	130	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<9.4	<47	<61.1	2.3
BW	8/29/2017	5											0.9
BW	8/29/2017	10											2.1
S-11135241-082917-MG-BW-15	8/29/2017	15	430	<0.024	<0.048	<0.048	< 0.097	<0.217	<4.8	<9.3	<47	<61.1	9.7
S-11135241-082917-MG-BW-20	8/29/2017	20	54	<0.024	<0.048	<0.048	< 0.096	<0.216	<4.8	<9.5	<48	<62.3	7.4
BS	8/30/2017	5											42
BS	8/30/2017	10											72
S-11135241-083017-MG-BS-15	8/30/2017	15	360	<0.024	<0.049	< 0.049	<0.098	<0.220	<4.9	<9.5	<47	<61.4	27
S-11135241-083017-MG-BS-20	8/30/2017	20	140	< 0.023	<0.047	< 0.047	< 0.094	<0.211	<4.7	<9.1	<46	<59.8	63
BE-1	8/30/2017	5											195
BE-2	8/30/2017	5											228
BE-2	8/30/2017	10											60
S-11135241-083017-MG-BE2-15	8/30/2017	15	75	< 0.025	< 0.049	< 0.049	<0.098	<0.221	<4.9	<9.7	<48	<62.6	72
S-11135241-083017-MG-BE2-20	8/30/2017	20	72	< 0.023	<0.046	<0.046	<0.091	<0.206	<4.6	<9.5	<48	<62.1	28
S-11135241-121817-MG-MW-2-5	12/18/2017	5	36	< 0.023	< 0.047	< 0.047	< 0.094	<0.211	<4.7	<9.8	<49	<63.5	
S-11135241-121817-MG-MW-2-10	12/18/2017	10	86	< 0.023	<0.046	<0.046	<0.092	<0.207	<4.6	<9.0	<45	<58.6	
S-11135241-121817-MG-MW-2-20	12/18/2017	20	57	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<9.8	<48	<62.5	
S-11135241-121917-MG-MW-3-15	12/19/2017	15	140	<0.023	<0.047	<0.047	<0.094	<0.211	<4.6	<9.6	<48	<62.2	
S-11135241-121917-MG-MW-3-20	12/19/2017	20	120	<0.024	<0.048	<0.048	<0.097	<0.217	<4.8	<10	<50	<64.8	
S-11135241-121917-MG-MW-3-35	12/19/2017	35	90	<0.025	<0.050	< 0.050	<0.010	<0.225	<5.0	<9.6	<48	<62.6	
S-11135241-121917-MG-MW-4-10	12/19/2017	10	46	<0.024	<0.048	<0.048	<0.095	<0.215	<4.8	<9.8	<49	<63.6	359
S-11135241-121917-MG-MW-4-15	12/19/2017	15	35	< 0.023	<0.047	<0.047	< 0.093	<0.210	<4.7	<9.8	<49	<63.5	128
S-11135241-121917-MG-MW-4-20	12/19/2017	20	130	<0.024	<0.048	<0.048	< 0.096	<0.216	<4.8	<9.9	<49	<63.7	292
S-11135241-122017-MG-MW-5-10	12/20/2017	10	<30	< 0.025	< 0.050	< 0.050	<0.010	< 0.225	<5.0	<9.5	<48	<62.5	199
S-11135241-122017-MG-MW-5-20	12/20/2017	20	<30	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.5	<48	<62.3	99
S-11135241-122017-MG-MW-5-25	12/20/2017	25	73	<0.023	<0.047	<0.047	<0.093	<0.210	<4.7	<9.4	<47	<61.1	104
S-11135241-122017-MG-AS-1-10	12/20/2017	10	46	<0.024	<0.048	<0.048	< 0.096	<0.216	<4.8	<9.9	<50	<64.7	159
S-11135241-122017-MG-AS-1-15	12/20/2017	15	50	<0.023	<0.046	<0.046	< 0.093	<0.208	<4.6	<9.3	<46	<59.9	81
S-11135241-122017-MG-AS-1-20	12/20/2017	20	97	<0.023	<0.047	<0.047	<0.094	<0.211	<4.7	<9.5	<47	<61.2	70
S-11135241-122117-MG-AS-2-10	12/21/2017	10	<30	<0.025	<0.049	<0.049	<0.098	<0.221	<4.9	<9.8	<49	<63.7	102
S-11135241-122117-MG-AS-2-15	12/21/2017	15	<30	<0.023	<0.046	<0.046	<0.092	<0.207	<4.6	<9.3	<47	<60.9	292
S-11135241-122117-MG-AS-2-20	12/21/2017	20	<30	<0.024	<0.049	<0.049	<0.097	<0.220	<4.9	<9.5	<48	<62.4	188
S-11135241-071420-CN-DP1-5	7/14/2020	5	<60	< 0.025	<0.049	<0.049	<0.098	<0.221	<4.9	<9.9	<50	<64.8	
S-11135241-071420-CN-DP1-10	7/14/2020	10	<60	<0.12	<0.24	<0.24	<0.49	<1.09	<24	<8.7	<44	<76.7	
S-11135241-071420-CN-DP1-15	7/14/2020	15	69	<0.024	<0.048	<0.048	<0.095	<0.215	<4.8	<9.6	<48	<62.4	
S-11135241-071420-CN-DP1-20	7/14/2020	20	750	<0.024	<0.048	<0.048	< 0.097	<0.217	<4.8	<9.7	<48	<62.5	
S-11135241-071420-CN-DP2-5	7/14/2020	5	<60	<0.024	<0.047	<0.047	< 0.095	<0.213	<4.7	<8.8	<44	<62.2	
S-11135241-071420-CN-DP2-10	7/14/2020	10	<60	<0.024	< 0.047	< 0.047	<0.094	<0.212	<4.7	<9.9	<50	<64.6	

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# Table 4 Soil Analytical Results Summary O-6-1 4" Lea County, New Mexico

Lea	County, New Mexico
ETO	Texas Pipeline, Ltd.

Sample ID	Date	Sample Depth (ft.)	Chlorides (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (C6-C10) (mg/kg)	TPH DRO (C10-C28) (mg/kg)	TPH ORO (C28-C36) (mg/kg)	Total TPH (C6-C36) (mg/kg)	Field Screen - Hydrocarbons (ppm)
NMOCD Remediation Action Levels			600	10		NE		50		NE		100	NE
S-11135241-071420-CN-DP2-15	7/14/2020	15	<60	< 0.025	< 0.049	<0.049	< 0.099	<0.222	<4.9	<9.2	<46	<60.1	
S-11135241-071420-CN-DP2-20	7/14/2020	20	78	<0.023	<0.046	<0.046	< 0.093	<0.208	<4.6	<9.6	<48	<62.2	
S-11135241-071420-CN-DP3-5	7/14/2020	5	<60	<0.024	<0.047	<0.047	< 0.095	<0.213	<4.7	<9.4	<47	<61.1	
S-11135241-071420-CN-DP3-10	7/14/2020	10	<60	<0.024	<0.047	<0.047	< 0.094	<0.212	<4.7	<9.4	<47	<61.1	
S-11135241-071420-CN-DP3-15	7/14/2020	15	<60	<0.023	<0.046	<0.046	<0.092	<0.207	<4.6	<9.5	<47	<61.1	
S-11135241-071420-CN-DP3-20	7/14/2020	20	<60	<0.025	<0.049	<0.049	<0.098	<0.221	<4.9	<9.7	<49	<63.6	
S-11135241-071420-CN-DP4-5	7/14/2020	5	<60	<0.025	< 0.050	< 0.050	<0.100	< 0.225	<5.0	<9.5	<47	<61.5	
S-11135241-071420-CN-DP4-10	7/14/2020	10	<60	<0.024	<0.048	<0.048	<0.097	<0.217	<4.8	<9.5	<48	<62.4	
S-11135241-071420-CN-DP4-15	7/14/2020	15	<60	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<10	<50	<64.8	
S-11135241-071420-CN-DP4-20	7/14/2020	20	83	<0.023	<0.047	<0.047	<0.094	<0.211	<4.7	<9.3	<46	<60.0	
S-11135241-071420-CN-DP5-5	7/14/2020	5	<60	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	10	100	110	
S-11135241-071420-CN-DP5-10	7/14/2020	10	<60	<0.025	<0.050	<0.050	<0.100	<0.225	<5.0	10	110	120	
S-11135241-071420-CN-DP5-15	7/14/2020	15	<60	<0.025	< 0.050	<0.050	<0.099	<0.224	<5.0	<9.2	<46	<60.2	
S-11135241-071420-CN-DP5-20	7/14/2020	20	<60	<0.025	< 0.049	<0.049	<0.099	<0.222	<4.9	<9.3	<47	<61.2	

Note: Concentrations that are bold exceed the NMOCD Remediation Action Level

NE = Not Established

mg/Kg = milligrams per Kilogram

-- = Not Applicable NA = Not Analyzed

Field screening only

<sup>\*</sup> Sample taken by ETC Field Services

# **Appendices**

# Appendix A Groundwater Laboratory Analytical Reports



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

March 06, 2020

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

FAX:

RE: SU 0-6-1 OrderNo.: 2002B36

### **Dear Christine Mathews:**

Hall Environmental Analysis Laboratory received 7 sample(s) on 2/26/2020 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

andy

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: **2002B36**Date Reported: **3/6/2020** 

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2002B36

**Project:** SU 0-6-1

**Lab ID:** 2002B36-001 **Collection Date:** 2/25/2020 2:10:00 PM

Client Sample ID: MW-1 Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed 1	Batch ID
EPA METHOD 300.0: ANIONS						Analys	st: CJS
Chloride	690	50	*	mg/L	100	2/27/2020 6:01:42 PM	R66888
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analys	st: <b>KS</b>
Total Dissolved Solids	1720	20.0	*	mg/L	1	3/4/2020 10:45:00 AM	50795
EPA METHOD 8260: VOLATILES SHORT LIST						Analys	st: <b>DJF</b>
Benzene	ND	1.0		μg/L	1	2/29/2020 7:42:14 AM	D66923
Toluene	ND	1.0		μg/L	1	2/29/2020 7:42:14 AM	D66923
Ethylbenzene	ND	1.0		μg/L	1	2/29/2020 7:42:14 AM	D66923
Xylenes, Total	ND	1.5		μg/L	1	2/29/2020 7:42:14 AM	D66923
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	2/29/2020 7:42:14 AM	D66923
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	2/29/2020 7:42:14 AM	D66923
Surr: Dibromofluoromethane	110	70-130		%Rec	1	2/29/2020 7:42:14 AM	D66923
Surr: Toluene-d8	98.9	70-130		%Rec	1	2/29/2020 7:42:14 AM	D66923

**Lab ID:** 2002B36-002 **Collection Date:** 2/25/2020 2:35:00 PM

Client Sample ID: MW-2 Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analys	st: CJS
Chloride	780	50	*	mg/L	100	2/27/2020 6:27:27 PM	R66888
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analys	st: <b>KS</b>
Total Dissolved Solids	1780	20.0	*	mg/L	1	3/4/2020 10:45:00 AM	50795
EPA METHOD 8260: VOLATILES SHORT LIST						Analys	st: <b>DJF</b>
Benzene	ND	1.0		μg/L	1	2/29/2020 8:11:16 AM	D66923
Toluene	ND	1.0		μg/L	1	2/29/2020 8:11:16 AM	D66923
Ethylbenzene	ND	1.0		μg/L	1	2/29/2020 8:11:16 AM	D66923
Xylenes, Total	ND	1.5		μg/L	1	2/29/2020 8:11:16 AM	D66923
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	2/29/2020 8:11:16 AM	D66923
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	2/29/2020 8:11:16 AM	D66923
Surr: Dibromofluoromethane	112	70-130		%Rec	1	2/29/2020 8:11:16 AM	D66923
Surr: Toluene-d8	102	70-130		%Rec	1	2/29/2020 8:11:16 AM	D66923

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: **2002B36**Date Reported: **3/6/2020** 

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2002B36

**Project:** SU 0-6-1

**Lab ID:** 2002B36-003 **Collection Date:** 2/25/2020 3:00:00 PM

Client Sample ID: MW-3 Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analy	st: CJS
Chloride	720	50	*	mg/L	100	2/27/2020 6:53:12 PM	/ R66888
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analy	st: <b>KS</b>
Total Dissolved Solids	1800	20.0	*	mg/L	1	3/4/2020 10:45:00 A	A 50795
EPA METHOD 8260: VOLATILES SHORT LIST						Analy	st: <b>DJF</b>
Benzene	ND	1.0		μg/L	1	2/29/2020 8:40:23 AM	И D66923
Toluene	ND	1.0		μg/L	1	2/29/2020 8:40:23 AM	/ D66923
Ethylbenzene	ND	1.0		μg/L	1	2/29/2020 8:40:23 Af	/ D66923
Xylenes, Total	ND	1.5		μg/L	1	2/29/2020 8:40:23 AM	Л D66923
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%Rec	1	2/29/2020 8:40:23 AM	Л D66923
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	2/29/2020 8:40:23 Af	Л D66923
Surr: Dibromofluoromethane	109	70-130		%Rec	1	2/29/2020 8:40:23 AM	Л D66923
Surr: Toluene-d8	103	70-130		%Rec	1	2/29/2020 8:40:23 AM	И D66923

**Lab ID:** 2002B36-004 **Collection Date:** 2/25/2020 1:05:00 PM

Client Sample ID: MW-4 Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analy	st: CJS
Chloride	580	50	*	mg/L	100	2/27/2020 7:18:57 PM	M R66888
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analy	st: <b>KS</b>
Total Dissolved Solids	1680	20.0	*	mg/L	1	3/4/2020 10:45:00 AM	<i>I</i> 50795
EPA METHOD 8260: VOLATILES SHORT LIST						Analy	st: <b>DJF</b>
Benzene	ND	1.0		μg/L	1	2/29/2020 9:09:37 AM	M D66923
Toluene	ND	1.0		μg/L	1	2/29/2020 9:09:37 AM	M D66923
Ethylbenzene	ND	1.0		μg/L	1	2/29/2020 9:09:37 AM	M D66923
Xylenes, Total	ND	1.5		μg/L	1	2/29/2020 9:09:37 AM	M D66923
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	2/29/2020 9:09:37 AM	M D66923
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	2/29/2020 9:09:37 AM	M D66923
Surr: Dibromofluoromethane	111	70-130		%Rec	1	2/29/2020 9:09:37 AM	M D66923
Surr: Toluene-d8	101	70-130		%Rec	1	2/29/2020 9:09:37 AM	M D66923

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 7

Lab Order: **2002B36**Date Reported: **3/6/2020** 

## Hall Environmental Analysis Laboratory, Inc.

GHD **Lab Order:** 2002B36

**Project:** SU 0-6-1

**CLIENT:** 

**Lab ID:** 2002B36-005 **Collection Date:** 2/25/2020 1:40:00 PM

Client Sample ID: MW-5 Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analy	st: CJS
Chloride	740	50	*	mg/L	100	2/27/2020 8:10:34 Pf	M R66888
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analy	st: <b>KS</b>
Total Dissolved Solids	1870	20.0	*	mg/L	1	3/4/2020 10:45:00 Af	M 50795
EPA METHOD 8260: VOLATILES SHORT LIST						Analy	st: <b>DJF</b>
Benzene	ND	1.0		μg/L	1	2/29/2020 9:38:58 Al	M D66923
Toluene	ND	1.0		μg/L	1	2/29/2020 9:38:58 Al	M D66923
Ethylbenzene	ND	1.0		μg/L	1	2/29/2020 9:38:58 Al	M D66923
Xylenes, Total	ND	1.5		μg/L	1	2/29/2020 9:38:58 Af	M D66923
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%Rec	1	2/29/2020 9:38:58 Af	M D66923
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	2/29/2020 9:38:58 Af	M D66923
Surr: Dibromofluoromethane	101	70-130		%Rec	1	2/29/2020 9:38:58 Af	M D66923
Surr: Toluene-d8	100	70-130		%Rec	1	2/29/2020 9:38:58 Al	M D66923

Lab ID: 2002B36-006 Collection Date:

Client Sample ID: Trip Blank Matrix: TRIP BLANK

Analyses	Result	RL (	Qual Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8260: VOLATILES SHORT LIST					Ana	alyst:	DJF
Benzene	ND	1.0	μg/L	1	2/29/2020 10:08:3	1 AM	D66923
Toluene	ND	1.0	μg/L	1	2/29/2020 10:08:3	1 AM	D66923
Ethylbenzene	ND	1.0	μg/L	1	2/29/2020 10:08:3	1 AM	D66923
Xylenes, Total	ND	1.5	μg/L	1	2/29/2020 10:08:3	1 AM	D66923
Surr: 1,2-Dichloroethane-d4	93.6	70-130	%Rec	1	2/29/2020 10:08:3	1 AM	D66923
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	2/29/2020 10:08:3	1 AM	D66923
Surr: Dibromofluoromethane	100	70-130	%Rec	1	2/29/2020 10:08:3	1 AM	D66923
Surr: Toluene-d8	97.9	70-130	%Rec	1	2/29/2020 10:08:3	1 AM	D66923

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: **2002B36**Date Reported: **3/6/2020** 

## Hall Environmental Analysis Laboratory, Inc.

Lab Order: 2002B36

**Project:** SU 0-6-1

**GHD** 

**CLIENT:** 

**Lab ID:** 2002B36-007 **Collection Date:** 2/25/2020

Client Sample ID: Dup-01 Matrix: GROUNDWATER

Cheft Sample 1D. Dup 01	Watta, GROOND WITTER									
Analyses	Result	RL	Qual	Units	<b>DF</b>	Date Analyzed	Ba	tch ID		
EPA METHOD 300.0: ANIONS						А	nalyst:	CJS		
Chloride	720	50	*	mg/L	100	2/27/2020 8:36:1	7 PM	R66888		
SM2540C MOD: TOTAL DISSOLVED SOLIDS						А	nalyst:	KS		
Total Dissolved Solids	1690	20.0	*	mg/L	1	3/4/2020 10:45:0	0 AM	50795		
EPA METHOD 8260: VOLATILES SHORT LIST						Α	nalyst:	DJF		
Benzene	ND	1.0		μg/L	1	2/29/2020 10:37:	51 AM	D66923		
Toluene	ND	1.0		μg/L	1	2/29/2020 10:37:	51 AM	D66923		
Ethylbenzene	ND	1.0		μg/L	1	2/29/2020 10:37:	51 AM	D66923		
Xylenes, Total	ND	1.5		μg/L	1	2/29/2020 10:37:	51 AM	D66923		
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%Rec	1	2/29/2020 10:37:	51 AM	D66923		
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	1	2/29/2020 10:37:	51 AM	D66923		
Surr: Dibromofluoromethane	103	70-130		%Rec	1	2/29/2020 10:37:	51 AM	D66923		
Surr: Toluene-d8	102	70-130		%Rec	1	2/29/2020 10:37:	51 AM	D66923		

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 7

# **QC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2002B36** 

06-Mar-20

Client: GHD **Project:** SU 0-6-1

Sample ID: MB SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBW Batch ID: R66888 RunNo: 66888

Prep Date: Analysis Date: 2/27/2020 SeqNo: 2300387 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: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSW Batch ID: R66888 RunNo: 66888

Prep Date: Analysis Date: 2/27/2020 SeqNo: 2300388 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 4.9 0.50 5.000 0 98.0 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 5 of 7

# **QC SUMMARY REPORT**

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2002B36** 

06-Mar-20

Client: GHD **Project:** SU 0-6-1

Sample ID: mb2 Client ID: PBW		ype: <b>ME</b> n ID: <b>D6</b>			tCode: <b>El</b> RunNo: <b>6</b> 0		8260: Volatile	ist		
Prep Date:	Analysis D	)ate: <b>2/</b>	28/2020	SeqNo: 2301841			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								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		99.7	70	130			
Surr: Toluene-d8	9.9		10.00		99.3	70	130			

Sample ID: 100ng lcs2	SampT	ype: <b>LC</b>	S	Tes	TestCode: EPA Method 8260: Volatiles Short List							
Client ID: LCSW	Batcl	n ID: <b>D6</b>	6923	F	RunNo: 6	6923						
Prep Date:	Analysis D	Date: <b>2/</b>	28/2020	SeqNo: <b>2301842</b>			Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	19	1.0	20.00	0	94.7	70	130					
Toluene	19	1.0	20.00	0	94.4	70	130					
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130					
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130					
Surr: Dibromofluoromethane	9.7		10.00		96.8	70	130					
Surr: Toluene-d8	9.8		10.00		97.5	70	130					

#### 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### **QC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2002B36** *06-Mar-20* 

Client: GHD
Project: SU 0-6-1

Sample ID: MB-50795 SampType: MBLK TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: PBW Batch ID: 50795 RunNo: 66999

Prep Date: 3/2/2020 Analysis Date: 3/4/2020 SeqNo: 2305760 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids ND 20.0

Sample ID: LCS-50795 SampType: LCS TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW Batch ID: 50795 RunNo: 66999

Prep Date: 3/2/2020 Analysis Date: 3/4/2020 SeqNo: 2305761 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 1000 20.0 1000 0 101 80 120

#### 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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 7 of 7



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: 2002B36						RcptNo: 1					
Received By:	Desiree Do	ominguez	2/26/2020 11	:20:00 AM			TA	<u> </u>						
Completed By:	Leah Baca	1	2/26/2020 1:4	49:06 PM			/2/	Baca						
Reviewed By:	16 3	1/21/20					Lun	Ja						
Chain of Cus	tody													
1. Is Chain of C	ustody sufficie	ently complete?			Yes	<b>V</b>	No		Not Present					
2. How was the	sample delive	ered?		<u>!</u>	Courie	<u>er</u>								
<u>Log In</u> 3. Was an attern	npt made to co	ool the samples?	,	•	Yes	<b>✓</b>	No		NA [					
4. Were all samp	ples received	at a temperature	of >0° C to 6.0°	°C '	Yes	<b>✓</b>	No		NA [					
5. Sample(s) in	proper contair	ner(s)?		,	Yes	<b>✓</b>	No							
6. Sufficient sam	iple volume fo	or indicated test(s	s)?	١	es 🛚	/	No							
7. Are samples (	except VOA a	and ONG) proper	ly preserved?	١	es 🖢		No							
8. Was preserva	tive added to	bottles?		١	es [		No	<b>✓</b>	NA [	] .				
9. Received at le	east 1 vial with	n headspace <1/4	1" for AQ VOA?	Y	es [	7	No		NA [					
10. Were any san	mple containe	rs received broke	en?	,	Yes [		No		# of preserved					
11. Does paperwo				١	es E	<b>/</b>	No		bottles checked for pH:	2,0i >12 i	unless noted)			
12. Are matrices of			Custody?	٢	es 🛚		No		Adjusted?					
13. Is it clear what	-	•					No		/		m 1 m 1 m n			
14. Were all holding (If no, notify co	-			Υ	es !		No		Checked by	I. DAD	2/27/20			
Special Handl	ing (if app	<u>licable)</u>												
15. Was client no	otified of all dis	screpancies with	this order?	,	Yes		No		NA B					
By Who Regard Client li	ing:		And the second s	Date:	eMai	Pl	hone _	Fax	In Person					
16. Additional re	marks:													
17. <u>Cooler Infor</u> Cooler No	THE RESERVE OF THE PARTY NAMED OF	Condition S	eal Intact Sea	i No Se	al Da	ie	Signed:	By						

Ö	hain-	of-Cu	Chain-of-Custody Record	Turn-Around Time:	Time:								Š		ļ	
Client:	ETC	. \		Standard	□ Rush				ÌĀ	TALL Anai		Y	AB	MALL ENVIKONMENTAL ANALYSTS LABORATORY	4 CT	
				Project Name:					}	ww.ha	www.hallenvironmental.com	nment	al.con	_	• }	
Mailing,	Address	Mailing Address: 6/2/	Indian School Cod,	SU 0-6	1-9-			4901 F	4901 Hawkins NE	Ä.	Albuq	nerque	MN 'e	Albuquerque, NM 87109		<b>):</b> 3/3
$\frac{NE}{2}$	He 21	NE STE 200, Albuques	NE STE 200, Albuquesque, NM, 87110 Hone #: 505-769-0088	Project #: / ( ,	52602	5.		Tel. 5	505-345-3975	-3975 ^	Fax 505-345- Analysis Request	Fax 505-345-4107 ysis Request	345-4°	107		21/2021
email or	Fax#: (	.hr:15+1.	email or Fax#: Chris + h.c. Matters @ 合材り、Com Project Manager	Project Mana	ger:			(0			<sup>7</sup> O		(ju			2:14
QA/QC Package: K Standard	<sup>5</sup> ackage: dard		□ Level 4 (Full Validation)	Christine	e Mathews	(e.ws	208) s	PCB's	3/1/30	CIVIICO	PO⁴, S		əsdA\tr			:38 PM
Accreditation:	tation:	□ Az Co		Sampler: He	Heath Boyd	7 d					' <sup>z</sup> ON	(∀	ıəsəıc			
□ EDD (Type)	(Type)			# of Coolers:	ر . ا	NO.								50		<u> </u>
				Cooler Temp(including of), 1.3 F0.0 < 1.	including CF): [1,3]	F0.0=1.3 (°C)								7 1		
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Tvpe	HEAL No.	(X3T8	08:H9T 	N) 803	PAHs b	Cl' E' E	8) 07S8	Total C	/17		
Ϊ.	1	S.S.	MW-1	1	(3) HCL		m	<u> </u>	1	<u> </u>	+					
-	1435	30	2 -MW	<b>3</b> -	(3) HCL	- COC	3									
	1500	35	mw - 3	7	1)H(z)	. 003	3									
	1305	G 20	7 mw	þ	(5) HCL	700 -	2									
	1340	SE	mw - S	7	(3) H(L	- 005	3				_					
	1	B B	Trip Blank	2	nla	<b>၅</b> 00 ~										
×	١	(S	Dup-01	h	7 <i>)</i> #( <i>i</i> )	- 003	3									
										-						
								+								
								+			<u> </u>	<b> </b>				<u> </u> 
Date:	Time: [6]5	Relinquished by: Ken Un Boyd	Boyd M	Received by:	Via:	Date Time 2/25/2∪ 1.15	Remarks:	arks:								Po
Date: 2 25 20	Date: Time:	Relinquished by:	ed by:	Received by:	Via: Couru	Date Time 7/26/20 11:20	భ									age 35 oj
]	If necessary	, samples sul	f 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.	contracted to other a	ocredited laboratorie	es. This serves as notice of the	lidissod sir	ity. Any s	ub-contra	oted data	will be cle	arly notal	ted on th	e analytical ı	report.	f 99 -



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

May 21, 2020

Christine Mathews
GHD

6121 Indian School Road, NE #200 Albuquerque, NM 87110

TEL: (505) 884-0672

FAX

RE: 0 6 1 OrderNo.: 2005589

### Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 6 sample(s) on 5/14/2020 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

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 2005589

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/21/2020

CLIENT: GHD Lab Order: 2005589

**Project:** 0 6 1

**Lab ID:** 2005589-001 **Collection Date:** 5/12/2020 3:00:00 PM

Client Sample ID: GW-11209235-051220-CN-MW-1 Matrix: AQUEOUS

**Analyses** Result RL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 690 100 5/15/2020 2:16:03 PM R68950 50 mg/L SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: KS **Total Dissolved Solids** 20.0 5/19/2020 7:18:00 PM 52546 1920 mg/L **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: CCM Benzene ND 5/15/2020 6:45:00 PM SL6891 1.0 μg/L Toluene ND 5/15/2020 6:45:00 PM SL6891 1.0 μg/L 1 Ethylbenzene ND 1.0 μg/L 1 5/15/2020 6:45:00 PM SL6891 Xylenes, Total ND 1.5 μg/L 1 5/15/2020 6:45:00 PM SL6891 Surr: 1,2-Dichloroethane-d4 99.1 70-130 %Rec 1 5/15/2020 6:45:00 PM SL6891 Surr: 4-Bromofluorobenzene 90.9 70-130 %Rec 1 5/15/2020 6:45:00 PM SL6891 Surr: Dibromofluoromethane 103 70-130 %Rec 5/15/2020 6:45:00 PM 1 SL6891 Surr: Toluene-d8 99.0 70-130 %Rec 5/15/2020 6:45:00 PM SL6891

**Lab ID:** 2005589-002 **Collection Date:** 5/12/2020 3:45:00 PM

Client Sample ID: GW-11209235-051220-CN-MW-2 Matrix: AQUEOUS

**Analyses** Result **RL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 770 50 mg/L 100 5/15/2020 3:07:29 PM R68950 **SM2540C MOD: TOTAL DISSOLVED SOLIDS** Analyst: KS **Total Dissolved Solids** 2030 40.0 \*D mg/L 5/19/2020 7:18:00 PM 52546 **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: CCM Benzene ND 1.0 μg/L 5/15/2020 7:09:00 PM SL6891 1 Toluene ND 5/15/2020 7:09:00 PM SL6891 1.0 μg/L 1 Ethylbenzene ND 1.0 μg/L 1 5/15/2020 7:09:00 PM SL6891 Xylenes, Total ND 1.5 μg/L 1 5/15/2020 7:09:00 PM SL6891 97.9 70-130 SL6891 Surr: 1,2-Dichloroethane-d4 %Rec 1 5/15/2020 7:09:00 PM Surr: 4-Bromofluorobenzene 92.1 70-130 %Rec 1 5/15/2020 7:09:00 PM SL6891 Surr: Dibromofluoromethane 105 70-130 %Rec 5/15/2020 7:09:00 PM SL6891 Surr: Toluene-d8 100 70-130 %Rec 5/15/2020 7:09:00 PM SL6891

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

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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 6

Lab Order: 2005589

Lab Order:

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/21/2020

2005589

CLIENT: GHD Project: 0 6 1

**Lab ID:** 2005589-003 **Collection Date:** 5/12/2020 4:15:00 PM

Client Sample ID: GW-11209235-051220-CN-MW-3 Matrix: AQUEOUS

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 630 50 100 5/15/2020 3:33:13 PM R68950 mg/L SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: KS **Total Dissolved Solids** \*D 5/19/2020 7:18:00 PM 52546 1720 40.0 mg/L **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: CCM Benzene ND 5/15/2020 7:33:00 PM SL6891 1.0 μg/L Toluene ND μg/L 5/15/2020 7:33:00 PM SL6891 1.0 1 Ethylbenzene ND 1.0 μg/L 1 5/15/2020 7:33:00 PM SL6891 Xylenes, Total ND 1.5 μg/L 5/15/2020 7:33:00 PM SL6891 Surr: 1,2-Dichloroethane-d4 99.3 70-130 %Rec 1 5/15/2020 7:33:00 PM SL6891 Surr: 4-Bromofluorobenzene 91.6 70-130 %Rec 1 5/15/2020 7:33:00 PM SL6891 Surr: Dibromofluoromethane 105 70-130 %Rec 1 5/15/2020 7:33:00 PM SL6891 Surr: Toluene-d8 100 70-130 %Rec 5/15/2020 7:33:00 PM SL6891

**Lab ID:** 2005589-004 **Collection Date:** 5/12/2020 4:45:00 PM

Client Sample ID: GW-11209235-051220-CN-MW-4 Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed B	atch ID
EPA METHOD 300.0: ANIONS						Analys	t: <b>JMT</b>
Chloride	570	50	*	mg/L	100	5/15/2020 3:58:56 PM	R68950
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analys	t: <b>KS</b>
Total Dissolved Solids	1780	100	*D	mg/L	1	5/19/2020 7:18:00 PM	52546
EPA METHOD 8260: VOLATILES SHORT LIST						Analys	t: CCM
Benzene	ND	1.0		μg/L	1	5/15/2020 7:56:00 PM	SL6891
Toluene	ND	1.0		μg/L	1	5/15/2020 7:56:00 PM	SL6891
Ethylbenzene	ND	1.0		μg/L	1	5/15/2020 7:56:00 PM	SL6891
Xylenes, Total	ND	1.5		μg/L	1	5/15/2020 7:56:00 PM	SL6891
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%Rec	1	5/15/2020 7:56:00 PM	SL6891
Surr: 4-Bromofluorobenzene	91.7	70-130		%Rec	1	5/15/2020 7:56:00 PM	SL6891
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/15/2020 7:56:00 PM	SL6891
Surr: Toluene-d8	99.4	70-130		%Rec	1	5/15/2020 7:56:00 PM	SL6891

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

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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 6

Lab Order: 2005589

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/21/2020

CLIENT: GHD Lab Order: 2005589

**Project:** 0 6 1

**Lab ID:** 2005589-005 **Collection Date:** 5/12/2020 5:15:00 PM

Client Sample ID: GW-11209235-051220-CN-MW-5 Matrix: AQUEOUS

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 620 50 100 5/15/2020 4:24:40 PM R68950 mg/L SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: KS **Total Dissolved Solids** \*D 5/19/2020 7:18:00 PM 52546 1800 40.0 mg/L **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: CCM Benzene ND 5/15/2020 8:20:00 PM SL6891 1.0 μg/L Toluene ND 5/15/2020 8:20:00 PM SL6891 1.0 μg/L 1 Ethylbenzene ND 1.0 μg/L 1 5/15/2020 8:20:00 PM SL6891 Xylenes, Total ND 1.5 μg/L 5/15/2020 8:20:00 PM SL6891 Surr: 1,2-Dichloroethane-d4 97.8 70-130 %Rec 1 5/15/2020 8:20:00 PM SL6891 Surr: 4-Bromofluorobenzene 92.5 70-130 %Rec 1 5/15/2020 8:20:00 PM SL6891 Surr: Dibromofluoromethane 70-130 %Rec 1 5/15/2020 8:20:00 PM 103 SL6891 Surr: Toluene-d8 99.5 70-130 %Rec 5/15/2020 8:20:00 PM SL6891

**Lab ID:** 2005589-006 **Collection Date:** 5/12/2020

Client Sample ID: GW-11209235-051220-CN-MW-DUP Matrix: AQUEOUS

011010 24111pt 12 0 0 1 1120 200 00 1220 01 1	201								
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID		
EPA METHOD 300.0: ANIONS						Ana	lyst: <b>JMT</b>		
Chloride	620	50	*	mg/L	100	5/15/2020 4:50:24 F	PM R68950		
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Ana	lyst: <b>KS</b>		
Total Dissolved Solids	1860	40.0	*D	mg/L	1	5/19/2020 7:18:00 F	PM 52546		
EPA METHOD 8260: VOLATILES SHORT LIST						Ana	lyst: CCM		
Benzene	ND	1.0		μg/L	1	5/15/2020 8:44:00 F	PM SL6891		
Toluene	ND	1.0		μg/L	1	5/15/2020 8:44:00 F	PM SL6891		
Ethylbenzene	ND	1.0		μg/L	1	5/15/2020 8:44:00 F	PM SL6891		
Xylenes, Total	ND	1.5		μg/L	1	5/15/2020 8:44:00 F	PM SL6891		
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%Rec	1	5/15/2020 8:44:00 F	PM SL6891		
Surr: 4-Bromofluorobenzene	90.6	70-130		%Rec	1	5/15/2020 8:44:00 F	PM SL6891		
Surr: Dibromofluoromethane	104	70-130		%Rec	1	5/15/2020 8:44:00 F	PM SL6891		
Surr: Toluene-d8	100	70-130		%Rec	1	5/15/2020 8:44:00 F	PM SL6891		

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

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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **2005589 21-May-20** 

Client: GHD Project: 0 6 1

Sample ID: MB SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBW Batch ID: R68950 RunNo: 68950

Prep Date: Analysis Date: 5/15/2020 SeqNo: 2386519 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: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSW Batch ID: R68950 RunNo: 68950

Prep Date: Analysis Date: 5/15/2020 SeqNo: 2386520 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 97.0 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 range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 4 of 6

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2005589 21-May-20** 

Client: GHD Project: 0 6 1

Sample ID: 100ng Ics	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8260: Volatile	es Short L	.ist	
Client ID: LCSW	Batch	ID: SL	68919	F	RunNo: <b>6</b>	8919				
Prep Date:	Analysis D	ate: 5/	15/2020	9	SeqNo: 2	385536	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.5	70	130			
Toluene	22	1.0	20.00	0	108	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.4	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.3	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID: mb	SampT	SampType: MBLK			tCode: El	PA Method	8260: Volatile	es Short L	∟ist	
Client ID: PBW	Batch	n ID: SL	.68919	F	RunNo: 6	8919				
Prep Date:	Analysis D	oate: 5/	15/2020	8	SeqNo: 2	385537	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								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.6	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.6	70	130			
Surr: Toluene-d8	10		10.00		99.9	70	130			

#### 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **2005589 21-May-20** 

Client: GHD Project: 0 6 1

Sample ID: MB-52546 SampType: MBLK TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: PBW Batch ID: 52546 RunNo: 69017

Prep Date: 5/18/2020 Analysis Date: 5/19/2020 SeqNo: 2389310 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids ND 20.0

Sample ID: LCS-52546 SampType: LCS TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW Batch ID: 52546 RunNo: 69017

Prep Date: 5/18/2020 Analysis Date: 5/19/2020 SeqNo: 2389311 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 1020 20.0 1000 0 102 80 120

#### 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 range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 6 of 6



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 Nu	mber: 200	5589			RcptNo	: 1
Received By:	Isaiah Ortiz	5/14/2020 9:30:00	O AM		I.	_C	4	
Completed By:	John Caldwell	5/14/2020 10:28:0	09 AM		T. Ohr	111		
Reviewed By:	LB	5/3/20			<i>y</i>	400		
		1 100						
Chain of Cus	<u>tody</u>							
1. Is Chain of Cu	ustody complete?		Yes	<b>✓</b>	No		Not Present	
2. How was the	sample delivered?		Cou	<u>rier</u>				
Log In								
and the second s	pt made to cool the samples?		Yes	<b>✓</b>	No		NA 🗌	
4. Were all samp	les received at a temperature of	of >0° C to 6.0°C	Yes	<b>✓</b>	No		NA $\square$	
5. Sample(s) in p	proper container(s)?		Yes	<b>✓</b>	No			
	ple volume for indicated test(s)			<b>V</b>	No			
22	except VOA and ONG) properly	preserved?		<b>V</b>	No			
8. Was preservat	ive added to bottles?		Yes		No	<b>V</b>	NA L	
9. Received at lea	ast 1 vial with headspace <1/4"	for AQ VOA?	Yes	<b>✓</b>	No		NA 🗌	
10. Were any sam	ple containers received broker	?	Yes		No	<b>V</b>		
44 =				_			# of preserved bottles checked	
	rk match bottle labels? ncies on chain of custody)		Yes	<b>✓</b>	No	Ш	for pH:	>12 unless noted)
	orrectly identified on Chain of C	Custody?	Yes	<b>✓</b>	No [		Adjusted?	12 dilloco fictody
	analyses were requested?		Yes	<b>~</b>	No [		-	
	g times able to be met?		Yes	<b>✓</b>	No [		Checked by:	
	stomer for authorization.)					_		
	ng (if applicable)							
15. Was client not	ified of all discrepancies with th	nis order?	Yes		No		NA 🗸	
Person N	Notified:	Date	9					
By Whor		Via:	eMa	ail 🗌	Phone	Fax	☐ In Person	
Regardir	ng: structions:							
16. Additional rem								
17. Cooler Inform Cooler No		al Intact   Seal No	Seal Da	ate I	Signed D	v 1		
1	3.3 Good	ar intact   Scar NO	Geal Da	ile	Signed B	У		

Chain-of-Custody Record	Turn-Around Time:	And a second of the second of				,	1					197 BH	Receive
Client: 7HD Services	M Standard □ Rush	11700		7- [			HALL ENVIRONMENT	VIR S			MEN	TAL	ed by
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□ EDD (Type)	# of Coolers:								шJ	9	Y		
*3	Cooler Temp(including CF): \$2 +6.1  cF	(3°, (°C)							ofilo	BI	05-	1.	
	Container Preservative				B (N	AA	۲, ۱ 00 (۷	S) 02	al C	9	50	1011	
Date Time Matrix Sample Name	# Type 200	5589							toT	18	ナ	17	
5-12-20 1500 W BUD-1120925-051210-CN-MW-1	VC4:005	100-								X	X		
1545 (40-1129735051220-(12)-Ma.2	7	700-								X	$\times$		
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories.	becontracted to other accredited laboratories. This s	This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report	ssibility. A	Any sub-c	ontracte	data w	Il be clea	rly notat	ed on t	the ana	lytical re	port.	99



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

August 31, 2020

Christine Mathews

**GHD** 

6121 Indian School Road, NE #200

Albuquerque, NM 87110 TEL: (505) 884-0672

FAX:

RE: 0-6-1 OrderNo.: 2008B88

#### Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 6 sample(s) on 8/21/2020 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

anded

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: **2008B88**Date Reported: **8/31/2020** 

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2008B88

**Project:** 0-6-1

**Lab ID:** 2008B88-001 **Collection Date:** 8/19/2020 3:15:00 PM

Client Sample ID: GW-11209235-081920-CN-MW-1 Matrix: AQUEOUS

**Analyses** Result RL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 640 50 100 8/21/2020 5:35:34 PM R71286 mg/L SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: KS **Total Dissolved Solids** 20.0 8/26/2020 5:04:00 PM 54656 1970 mg/L **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: RAA Benzene 8/24/2020 2:53:00 PM SL7129 ND 1.0 µg/L 1 Toluene ND 8/24/2020 2:53:00 PM SL7129 1.0 µg/L 1 Ethylbenzene ND 1.0 μg/L 1 8/24/2020 2:53:00 PM SL7129 Xylenes, Total ND 1.5 μg/L 1 8/24/2020 2:53:00 PM SL7129 Surr: 1,2-Dichloroethane-d4 85.0 70-130 %Rec 1 8/24/2020 2:53:00 PM SL7129 Surr: 4-Bromofluorobenzene 93.2 70-130 %Rec 1 8/24/2020 2:53:00 PM SL7129 Surr: Dibromofluoromethane 95.5 70-130 %Rec 8/24/2020 2:53:00 PM 1 SL7129 Surr: Toluene-d8 70-130 %Rec 8/24/2020 2:53:00 PM 101 SL7129

**Lab ID:** 2008B88-002 **Collection Date:** 8/19/2020 3:45:00 PM

Client Sample ID: GW-11209235-081920-CN-MW-2 Matrix: AQUEOUS

**Analyses** Result **RL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 760 50 mg/L 100 8/21/2020 6:25:12 PM R71286 SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: KS **Total Dissolved Solids** 2220 40.0 \*D mg/L 8/26/2020 5:04:00 PM 54656 **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 1.0 µg/L 8/24/2020 3:18:00 PM SL7129 1 Toluene ND 8/24/2020 3:18:00 PM SL7129 1.0 µg/L 1 Ethylbenzene ND 1.0 µg/L 1 8/24/2020 3:18:00 PM SL7129 Xylenes, Total ND 1.5 μg/L 1 8/24/2020 3:18:00 PM SL7129 70-130 Surr: 1,2-Dichloroethane-d4 86.3 %Rec 1 8/24/2020 3:18:00 PM SL7129 Surr: 4-Bromofluorobenzene 95.6 70-130 %Rec 1 8/24/2020 3:18:00 PM SL7129 Surr: Dibromofluoromethane 96.3 70-130 %Rec 8/24/2020 3:18:00 PM SL7129 Surr: Toluene-d8 100 70-130 %Rec 8/24/2020 3:18:00 PM SL7129

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

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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 7

Lab Order: **2008B88**Date Reported: **8/31/2020** 

#### Hall Environmental Analysis Laboratory, Inc.

**Lab Order:** 2008B88

**Project:** 0-6-1

**GHD** 

**CLIENT:** 

**Lab ID:** 2008B88-003 **Collection Date:** 8/19/2020 4:15:00 PM

Client Sample ID: GW-11209235-081920-CN-MW-3 Matrix: AQUEOUS

**Analyses** Result RL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 590 50 100 8/21/2020 6:50:01 PM R71286 mg/L SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: KS **Total Dissolved Solids** \*D 8/26/2020 5:04:00 PM 54656 1810 40.0 mg/L **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: RAA Benzene 8/24/2020 3:42:00 PM SL7129 ND 1.0 µg/L 1 Toluene ND 8/24/2020 3:42:00 PM SL7129 1.0 µg/L 1 Ethylbenzene ND 1.0 μg/L 1 8/24/2020 3:42:00 PM SL7129 Xylenes, Total ND 1.5 μg/L 1 8/24/2020 3:42:00 PM SL7129 Surr: 1,2-Dichloroethane-d4 86.5 70-130 %Rec 1 8/24/2020 3:42:00 PM SL7129 Surr: 4-Bromofluorobenzene 94.0 70-130 %Rec 1 8/24/2020 3:42:00 PM SL7129 Surr: Dibromofluoromethane 95.3 70-130 %Rec 8/24/2020 3:42:00 PM 1 SL7129 Surr: Toluene-d8 98.5 70-130 %Rec 8/24/2020 3:42:00 PM SL7129

**Lab ID:** 2008B88-004 **Collection Date:** 8/19/2020 4:45:00 PM

Client Sample ID: GW-11209235-081920-CN-MW-4 Matrix: AQUEOUS

**Analyses** Result **RL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 650 50 mg/L 100 8/21/2020 7:14:50 PM R71286 SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: KS **Total Dissolved Solids** 2180 40.0 \*D mg/L 8/26/2020 5:04:00 PM 54656 **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 1.0 µg/L 8/24/2020 4:06:00 PM SL7129 1 Toluene ND 8/24/2020 4:06:00 PM SL7129 1.0 µg/L 1 Ethylbenzene ND 1.0 µg/L 1 8/24/2020 4:06:00 PM SL7129 Xylenes, Total ND 1.5 μg/L 1 8/24/2020 4:06:00 PM SL7129 70-130 Surr: 1,2-Dichloroethane-d4 85.9 %Rec 1 8/24/2020 4:06:00 PM SL7129 Surr: 4-Bromofluorobenzene 93.7 70-130 %Rec 1 8/24/2020 4:06:00 PM SL7129 Surr: Dibromofluoromethane 95.1 70-130 %Rec 8/24/2020 4:06:00 PM SL7129 Surr: Toluene-d8 98.5 70-130 %Rec 8/24/2020 4:06:00 PM SL7129

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

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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 7

Lab Order: 2008B88

Date Reported: 8/31/2020

## Hall Environmental Analysis Laboratory, Inc.

GHD **Lab Order:** 2008B88

**Project:** 0-6-1

**CLIENT:** 

**Lab ID:** 2008B88-005 **Collection Date:** 8/19/2020 5:20:00 PM

Client Sample ID: GW-11209235-081920-CN-MW-5 Matrix: AQUEOUS

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 620 50 100 8/21/2020 7:39:39 PM R71286 mg/L SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: KS 8/26/2020 5:04:00 PM **Total Dissolved Solids** \*D 54656 1980 40.0 mg/L **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 8/24/2020 4:31:00 PM SL7129 1.0 μg/L Toluene ND μg/L 8/24/2020 4:31:00 PM SL7129 1.0 1 Ethylbenzene ND 1.0 μg/L 1 8/24/2020 4:31:00 PM SL7129 Xylenes, Total ND 1.5 μg/L 1 8/24/2020 4:31:00 PM SL7129 Surr: 1,2-Dichloroethane-d4 87.7 70-130 %Rec 1 8/24/2020 4:31:00 PM SL7129 Surr: 4-Bromofluorobenzene 93.4 70-130 %Rec 1 8/24/2020 4:31:00 PM SL7129 Surr: Dibromofluoromethane 96.5 70-130 %Rec 1 8/24/2020 4:31:00 PM SL7129 Surr: Toluene-d8 100 70-130 %Rec 8/24/2020 4:31:00 PM SL7129

**Lab ID:** 2008B88-006 **Collection Date:** 8/19/2020

Client Sample ID: GW-11209235-081920-CN-DUP Matrix: AQUEOUS

Analyses	Result	RL C	Qual Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8260: VOLATILES SHORT LIST					Ana	alyst:	RAA
Benzene	ND	1.0	μg/L	1	8/24/2020 4:55:00	PM	SL7129
Toluene	ND	1.0	μg/L	1	8/24/2020 4:55:00	PM	SL7129
Ethylbenzene	ND	1.0	μg/L	1	8/24/2020 4:55:00	PM	SL7129
Xylenes, Total	ND	1.5	μg/L	1	8/24/2020 4:55:00	PM	SL7129
Surr: 1,2-Dichloroethane-d4	87.5	70-130	%Rec	1	8/24/2020 4:55:00	PM	SL7129
Surr: 4-Bromofluorobenzene	94.0	70-130	%Rec	1	8/24/2020 4:55:00	PM	SL7129
Surr: Dibromofluoromethane	95.2	70-130	%Rec	1	8/24/2020 4:55:00	PM	SL7129
Surr: Toluene-d8	99.9	70-130	%Rec	1	8/24/2020 4:55:00	PM	SL7129

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

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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 7

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2008B88** 

31-Aug-20

Client: GHD Project: 0-6-1

Sample ID: MB SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBW Batch ID: R71286 RunNo: 71286

Prep Date: Analysis Date: 8/21/2020 SeqNo: 2487639 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 0.50

Sample ID: LCS-B SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSW Batch ID: R71286 RunNo: 71286

Prep Date: Analysis Date: 8/21/2020 SeqNo: 2487641 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 7

Hall Environmental Analysis Laboratory, Inc.

31-Aug-20

2008B88

WO#:

**Client:** GHD **Project:** 0-6-1

Sample ID: MB	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8260: Volatile	es Short L	_ist	
Client ID: PBW	Batcl	n ID: SL	71291	F	RunNo: <b>7</b>	1291				
Prep Date:	Analysis D	Date: 8/	24/2020	5	SeqNo: 2	493007	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								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.9	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.4	70	130			
Surr: Dibromofluoromethane	9.4		10.00		94.3	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Sample ID: 100ng Ics	Samp1	Type: <b>LC</b>	S	Tes	tCode: El	PA Method	8260: Volatile	s Short L	.ist	
Client ID: LCSW	Batc	h ID: SL	71291	F	RunNo: 7	1291				
Prep Date:	Analysis [	Date: 8/	24/2020	5	SeqNo: 2	493008	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.0	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		92.7	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID: 2008B88-001ams	s SampT	ype: MS	5	TestCode: EPA Method				s Short L	ist	
Client ID: <b>GW-11209235-08</b>	3192 Batch	ID: SL	71291	F	RunNo: <b>7</b>	1291				
Prep Date:	Analysis D	ate: <b>8/</b>	24/2020	8	SeqNo: 24	493015	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.4	70	130			
Toluene	20	1.0	20.00	0	99.2	70	130			
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.9	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.7	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID: 2	2008B88-001amsd	SampType	: MS	SD	Tes	tCode: <b>EF</b>	PA Method	8260: Volatile	s Short L	.ist	
Client ID: (	GW-11209235-08192	Batch ID	: SL	71291	R	RunNo: <b>7</b> ′	1291				
Prep Date:	Ar	alysis Date	: 8/	24/2020	S	SeqNo: 24	493016	Units: µg/L			
Analyte	F	Result F	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		19	1.0	20.00	0	94.4	70	130	4.14	20	
Toluene		19	1.0	20.00	0	95.5	70	130	3.78	20	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

Page 5 of 7

## Hall Environmental Analysis Laboratory, Inc.

2008B88 31-Aug-20

WO#:

Client: GHD Project: 0-6-1

Sample ID: 2008B88-001amsd SampType: MSD TestCode: EPA Method 8260: Volatiles Short List

Client ID: GW-11209235-08192 Batch ID: SL71291 RunNo: 71291

Prep Date: Analysis Date: 8/24/2020 SegNo: 2493016 Units: µg/L

	7a., 0.0 <b>2</b>	u.o. <b>o,</b>	,_0_0	_		.000.0	oo. µg/=				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.6	70	130	0	0		_
Surr: 4-Bromofluorobenzene	9.3		10.00		92.7	70	130	0	0		
Surr: Dibromofluoromethane	9.4		10.00		94.0	70	130	0	0		
Surr: Toluene-d8	10		10.00		101	70	130	0	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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 6 of 7

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2008B88** *31-Aug-20* 

Client: GHD Project: 0-6-1

Sample ID: MB-54656 SampType: MBLK TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: PBW Batch ID: 54656 RunNo: 71379

Prep Date: 8/25/2020 Analysis Date: 8/26/2020 SeqNo: 2491628 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids ND 20.0

Sample ID: LCS-54656 SampType: LCS TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW Batch ID: 54656 RunNo: 71379

Prep Date: 8/25/2020 Analysis Date: 8/26/2020 SeqNo: 2491629 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 1020 20.0 1000 0 102 80 120

#### 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

# Sample Log-In Check List

Client Name: GHD	Work Order Num	ber: 2008B88		RcptNo:	1
Received By: Cheyenne Cason	8/21/2020 8:11:00	AM			
Completed By: Juan Rojas	8/21/2020 11:11:09	AM	Grandy &	~	
Reviewed By: SPA 8.21.2	۹ /		_		
Chain of Custody					
1. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present	
2. How was the sample delivered?		<u>Courier</u>			
<u>Log In</u>					
3. Was an attempt made to cool the samples	?	Yes 🗹	No 🗌	NA 🗆	
4. Were all samples received at a temperatur	e 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 🗌		
<ol><li>Are samples (except VOA and ONG) proper</li></ol>	erly preserved?	Yes 🔽	No ∐	_	
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 brok	cen?	$_{Yes}$	No 🗹		
				# of preserved bottles checked	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗆	for pH:	12 unless noted)
12. Are matrices correctly identified on Chain of	of Custody?	Yes 🗹	No □	Adjusted?	12 di licas Notca)
3. Is it clear what analyses were requested?		Yes ✓	No 🗆		aded
14. Were all holding times able to be met?		Yes 🗹	No 🗌	Checked by:	re 8/21/2
(If no, notify customer for authorization.)			<del>بر</del> ا		
Special Handling (if applicable)					
15. Was client notified of all discrepancies with	this order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified:	Date				
By Whom:	Via:	eMail P	hone 🔲 Fax	☐ In Person	
Regarding:					
Client Instructions:	VMan (MA) A A A A A A A A A A A A A A A A A A	TO THE STREET A CONTRACT FAR FOR THE STREET A MARKET BASE AND ASSESSMENT AND ASSESSMENT	1. A. S.		
16. Additional remarks:					
17. Cooler Information					
The second secon	Seal Intact   Seal No	Seal Date:	Signed By		
1 4.5 Good 2 5.1 Good					
3 1.6 Good					

Received by OCD: 3/31/2021 2.	14:38 PM												Pa	ige 54 d	of 99
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Chain-of-Custody Record  (	r Fax#; Package Idard tation: AC (Type)	1515	1545	15.5	5491	22	j.						Time:	Time:	<b>3</b>   8
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Client: AHD Mailing Address:	email or Fax#: ( Incristive, Matheulla)  QA/QC Package:  □ Standard  □ Compliance □ NELAC □ Other □ EDD (Type) □ EDD (Type) □ Date   Time   Matrix   Sample Ne	2410					≥						Date:	Date:	



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

December 02, 2020

Christine Mathews

**GHD** 

6121 Indian School Road, NE #200

Albuquerque, NM 87110 TEL: (505) 884-0672

FAX:

RE: 0-6-1 OrderNo.: 2011918

#### Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 7 sample(s) on 11/18/2020 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

anded

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 2011918

Date Reported: 12/2/2020

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2011918

**Project:** 0-6-1

**Lab ID:** 2011918-001 **Collection Date:** 11/16/2020 3:30:00 PM

Client Sample ID: GW-11209235-111620-CN-MW-1 Matrix: AQUEOUS

**Analyses** Result RL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: MRA Chloride 730 25 11/25/2020 1:34:41 AM R73590 mg/L SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: MH **Total Dissolved Solids** 20.0 11/20/2020 2:05:00 PM 56547 1940 mg/L **EPA METHOD 8260B: VOLATILES** Analyst: DJF Benzene 11/20/2020 2:08:52 PM R73524 ND 1.0 µg/L Toluene ND 11/20/2020 2:08:52 PM R73524 1.0 µg/L 1 Ethylbenzene ND 1.0 μg/L 1 11/20/2020 2:08:52 PM R73524 Xylenes, Total ND 1.5 μg/L 1 11/20/2020 2:08:52 PM R73524 Surr: 1,2-Dichloroethane-d4 98.7 70-130 %Rec 1 11/20/2020 2:08:52 PM R73524 Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 11/20/2020 2:08:52 PM R73524 Surr: Dibromofluoromethane 105 70-130 %Rec 11/20/2020 2:08:52 PM R73524 1 Surr: Toluene-d8 96.9 70-130 %Rec 11/20/2020 2:08:52 PM R73524

**Lab ID:** 2011918-002 **Collection Date:** 11/16/2020 4:00:00 PM

Client Sample ID: GW-11209235-111620-CN-MW-2 Matrix: AQUEOUS

**Analyses** Result **RL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: MRA Chloride 760 25 mg/L 50 11/25/2020 1:47:05 AM R73590 **SM2540C MOD: TOTAL DISSOLVED SOLIDS** Analyst: MH **Total Dissolved Solids** 2100 20.0 mg/L 11/20/2020 2:05:00 PM 56547 **EPA METHOD 8260B: VOLATILES** Analyst: DJF 11/20/2020 2:37:17 PM R73524 Benzene ND 1.0 µg/L 1 Toluene ND 11/20/2020 2:37:17 PM R73524 1.0 µg/L Ethylbenzene ND 1.0 μg/L 1 11/20/2020 2:37:17 PM R73524 Xylenes, Total ND 1.5 μg/L 1 11/20/2020 2:37:17 PM R73524 70-130 Surr: 1,2-Dichloroethane-d4 101 %Rec 1 11/20/2020 2:37:17 PM R73524 Surr: 4-Bromofluorobenzene 98.5 70-130 %Rec 1 11/20/2020 2:37:17 PM R73524 Surr: Dibromofluoromethane 104 70-130 %Rec 11/20/2020 2:37:17 PM R73524 Surr: Toluene-d8 95.7 70-130 %Rec 11/20/2020 2:37:17 PM R73524

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

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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 8

Lab Order: **2011918** 

Date Reported: 12/2/2020

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2011918

**Project:** 0-6-1

**Lab ID:** 2011918-003 **Collection Date:** 11/16/2020 5:30:00 PM

Client Sample ID: GW-11209235-111620-CN-MW-3 Matrix: AQUEOUS

**Analyses** Result RL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: MRA Chloride 690 25 11/25/2020 1:59:30 AM R73590 mg/L 50 SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: MH **Total Dissolved Solids** 20.0 11/20/2020 2:05:00 PM 56547 1930 mg/L **EPA METHOD 8260B: VOLATILES** Analyst: DJF Benzene 11/20/2020 4:02:30 PM R73524 ND 1.0 µg/L Toluene ND 11/20/2020 4:02:30 PM R73524 1.0 µg/L 1 Ethylbenzene ND 1.0 μg/L 1 11/20/2020 4:02:30 PM R73524 Xylenes, Total ND 1.5 μg/L 1 11/20/2020 4:02:30 PM R73524 Surr: 1,2-Dichloroethane-d4 99.7 70-130 %Rec 1 11/20/2020 4:02:30 PM R73524 Surr: 4-Bromofluorobenzene 99.0 70-130 %Rec 1 11/20/2020 4:02:30 PM R73524 Surr: Dibromofluoromethane 102 70-130 %Rec 11/20/2020 4:02:30 PM R73524 1 Surr: Toluene-d8 97.6 70-130 %Rec 11/20/2020 4:02:30 PM R73524

**Lab ID:** 2011918-004 **Collection Date:** 11/16/2020 5:00:00 PM

Client Sample ID: GW-11209235-111620-CN-MW-4 Matrix: AQUEOUS

**Analyses** Result **RL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: MRA Chloride 730 25 mg/L 50 11/25/2020 2:11:54 AM R73590 **SM2540C MOD: TOTAL DISSOLVED SOLIDS** Analyst: MH **Total Dissolved Solids** 2410 20.0 mg/L 11/20/2020 2:05:00 PM 56547 **EPA METHOD 8260B: VOLATILES** Analyst: DJF Benzene ND 1.0 µg/L 11/20/2020 4:30:54 PM R73524 1 Toluene ND 11/20/2020 4:30:54 PM R73524 1.0 µg/L Ethylbenzene ND 1.0 μg/L 1 11/20/2020 4:30:54 PM R73524 Xylenes, Total ND 1.5 μg/L 1 11/20/2020 4:30:54 PM R73524 98.2 70-130 Surr: 1,2-Dichloroethane-d4 %Rec 1 11/20/2020 4:30:54 PM R73524 Surr: 4-Bromofluorobenzene 98.8 70-130 %Rec 1 11/20/2020 4:30:54 PM R73524 Surr: Dibromofluoromethane 106 70-130 %Rec 11/20/2020 4:30:54 PM R73524 Surr: Toluene-d8 101 70-130 %Rec 11/20/2020 4:30:54 PM R73524

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

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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2011918

Date Reported: 12/2/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2011918

**Project:** 0-6-1

**Lab ID:** 2011918-005 **Collection Date:** 11/16/2020 4:00:00 PM

Client Sample ID: GW-11209235-111620-CN-MW-5 Matrix: AQUEOUS

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: MRA Chloride 700 25 11/25/2020 2:24:19 AM R73590 mg/L SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: MH **Total Dissolved Solids** 20.0 11/20/2020 2:05:00 PM 56547 1910 mg/L **EPA METHOD 8260B: VOLATILES** Analyst: DJF Benzene ND 11/20/2020 4:59:20 PM R73524 1.0 µg/L Toluene ND μg/L 11/20/2020 4:59:20 PM R73524 1.0 1 Ethylbenzene ND 1.0 μg/L 1 11/20/2020 4:59:20 PM R73524 Xylenes, Total ND 1.5 μg/L 1 11/20/2020 4:59:20 PM R73524 Surr: 1,2-Dichloroethane-d4 105 70-130 %Rec 1 11/20/2020 4:59:20 PM R73524 Surr: 4-Bromofluorobenzene 100 70-130 %Rec 1 11/20/2020 4:59:20 PM R73524 Surr: Dibromofluoromethane 108 70-130 %Rec 1 11/20/2020 4:59:20 PM R73524 Surr: Toluene-d8 94.8 70-130 %Rec 11/20/2020 4:59:20 PM R73524

 Lab ID:
 2011918-006
 Collection Date:
 11/16/2020

 Client Sample ID:
 GW-11209235-111620-CN-DUP
 Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 300.0: ANIONS						Ana	ılyst:	MRA
Chloride	680	25	*	mg/L	50	11/25/2020 2:36:43	8 AM	R73590
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Ana	ılyst:	МН
Total Dissolved Solids	2380	20.0	*	mg/L	1	11/20/2020 2:05:00	PM	56547
EPA METHOD 8260B: VOLATILES						Ana	ılyst:	DJF
Benzene	ND	1.0		μg/L	1	11/20/2020 5:27:51	РМ	R73524
Toluene	ND	1.0		μg/L	1	11/20/2020 5:27:51	РМ	R73524
Ethylbenzene	ND	1.0		μg/L	1	11/20/2020 5:27:51	PM	R73524
Xylenes, Total	ND	1.5		μg/L	1	11/20/2020 5:27:51	PM	R73524
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	11/20/2020 5:27:51	PM	R73524
Surr: 4-Bromofluorobenzene	99.3	70-130		%Rec	1	11/20/2020 5:27:51	PM	R73524
Surr: Dibromofluoromethane	108	70-130		%Rec	1	11/20/2020 5:27:51	РМ	R73524
Surr: Toluene-d8	96.1	70-130		%Rec	1	11/20/2020 5:27:51	РМ	R73524

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

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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2011918

Date Reported: 12/2/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2011918

**Project:** 0-6-1

Lab ID: 2011918-007 Collection Date:

Client Sample ID: Trip Blank Matrix: TRIP BLANK

Analyses	Result	RL (	Qual Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8260B: VOLATILES					Ana	alyst:	DJF
Benzene	ND	1.0	μg/L	1	11/20/2020 5:56:20	PM	R73524
Toluene	ND	1.0	μg/L	1	11/20/2020 5:56:20	PM	R73524
Ethylbenzene	ND	1.0	μg/L	1	11/20/2020 5:56:20	PM	R73524
Xylenes, Total	ND	1.5	μg/L	1	11/20/2020 5:56:20	PM	R73524
Surr: 1,2-Dichloroethane-d4	95.4	70-130	%Rec	1	11/20/2020 5:56:20	PM	R73524
Surr: 4-Bromofluorobenzene	95.7	70-130	%Rec	1	11/20/2020 5:56:20	PM	R73524
Surr: Dibromofluoromethane	105	70-130	%Rec	1	11/20/2020 5:56:20	PM	R73524
Surr: Toluene-d8	98.2	70-130	%Rec	1	11/20/2020 5:56:20	PM	R73524

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **2011918 02-Dec-20** 

Client: GHD Project: 0-6-1

Sample ID: MB SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBW Batch ID: R73590 RunNo: 73590

Prep Date: Analysis Date: 11/24/2020 SeqNo: 2593354 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: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSW Batch ID: R73590 RunNo: 73590

Prep Date: Analysis Date: 11/24/2020 SeqNo: 2593355 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 4.6 0.50 5.000 0 92.6 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

2011918 02-Dec-20

WO#:

**Client:** GHD **Project:** 0-6-1

Sample ID: mb1	SampType: <b>MBLK</b>	TestCode: EPA Method 8260B: VOLATILES
Client ID. DDW	Datab ID. D70E04	D No 72504

Client ID: PBW Batch ID: **R73524** 

Prep Date:	Analysis D	ate: 11	/20/2020	8	SeqNo: 2	589529	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								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.0	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.7		10.00		96.8	70	130			

Sample ID: 100ng Ics	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8260B: VOL	ATILES		
Client ID: LCSW	Batch	n ID: <b>R7</b>	3524	F	RunNo: <b>7</b> :	3524				
Prep Date:	Analysis D	ate: 11	/20/2020	5	SeqNo: 2	589530	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.8	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.7	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.2	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.1	70	130			
Surr: Toluene-d8	9.3		10.00		92.7	70	130			

Sample ID: 2011918-002a ms	s SampT	ype: <b>MS</b>	;	Tes	tCode: EF	PA Method	8260B: VOL	ATILES		
Client ID: <b>GW-11209235-11</b>	1 <b>162</b> Batch	1D: <b>R7</b>	3524	F	RunNo: <b>7</b> :	3524				
Prep Date:	Analysis D	ate: 11	/20/2020	8	SeqNo: 2	589533	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.8	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.3	70	130			
Surr: Dibromofluoromethane	10		10.00		99.8	70	130			
Surr: Toluene-d8	9.7		10.00		97.0	70	130			

Sample ID:	2011918-002a msd	SampType	MS	D	Tes	tCode: <b>EF</b>	PA Method	8260B: VOLA	TILES		
Client ID:	GW-11209235-11162	Batch ID:	R73	3524	R	tunNo: <b>7</b> 3	3524				
Prep Date:	Aı	nalysis Date:	11	/20/2020	S	SeqNo: 25	589534	Units: µg/L			
Analyte	F	Result P	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		19	1.0	20.00	0	96.7	70	130	8.03	20	
Toluene		19	1.0	20.00	0	94.8	70	130	7.71	20	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

2011918 02-Dec-20

WO#:

Client: GHD Project: 0-6-1

Sample ID: 2011918-002a msd SampType: MSD TestCode: EPA Method 8260B: VOLATILES

Client ID: GW-11209235-11162 Batch ID: R73524 RunNo: 73524

Prep Date: Analysis Date: 11/20/2020 SeqNo: 2589534 Units: ug/L

Frep Date.	Allalysis D	ale. II	1/20/2020	3	eqivo. Z	009334	Offics. µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	11		10.00		105	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130	0	0	
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130	0	0	
Surr: Toluene-d8	9.3		10.00		93.0	70	130	0	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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

02-Dec-20

2011918

WO#:

Client: GHD Project: 0-6-1

Sample ID: MB-56547 SampType: MBLK TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: PBW Batch ID: 56547 RunNo: 73516

Prep Date: 11/19/2020 Analysis Date: 11/20/2020 SeqNo: 2589226 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids ND 20.0

Sample ID: LCS-56547 SampType: LCS TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW Batch ID: 56547 RunNo: 73516

Prep Date: 11/19/2020 Analysis Date: 11/20/2020 SeqNo: 2589227 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 1010 20.0 1000 0 101 80 120

#### 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 range due to dilution or matrix

B Analyte detected in the associated Method Blank

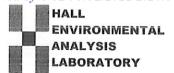
E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

# Sample Log-In Check List

13. Is it clear what analyses were requested?  14. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified: By Whom: Via: eMail Phone Fax In Person  Regarding: Client Instructions:  16. Additional remarks:  17. Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes 2 2.2 Good Yes	Client Name:	GHD		Work	Order Num	ber: 2011918		RcptNo:	1
Chain of Custody  1. Is Chain of Custody complete?  2. How was the sample delivered?  3. Was an attempt made to cool the samples?  4. Were all samples received at a temperature of >0° C to 6.0°C  4. Were all samples received at a temperature of >0° C to 6.0°C  5. Sample(s) in proper container(s)?  6. Sufficient sample volume for indicated test(s)?  7. Are samples (except VOA and ONG) properly preserved?  8. Was preservative added to bottle?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  10. Were any sample containers received broken?  11. Does paperwork match bottle labels?  (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  13. Is it clear what analyses were requested?  14. Were all holding times able to be met?  (If no, notify customer for authorization.)  Special Handling (If applicable)  15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Regarding:  Client Instructions:  16. Additional remarks:  17. Cooler No Temp *C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes  2 2.2 Good Yes	Received By:	Emily Mo	cho	11/18/2	020 8:00:00	) AM			
Chain of Custody  1. Is Chain of Custody complete? 2. How was the sample delivered?  Courier  Log In  3. Was an attempt made to cool the samples?  4. Were all samples received at a temperature of >0° C to 6.0°C  5. Sample(s) in proper container(s)?  6. Sufficient sample volume for indicated test(s)?  7. Are samples (except VOA and ONG) property preserved?  8. Was preservative added to bottles?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  10. Were any sample containers received broken?  11. Does paperwork match bottle labels?  (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  13. Is it clear what analyses were requested?  14. Were all holding times able to be met?  (If no, notify customer for authorization.)  Special Handling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Regarding:  Client Instructions:  16. Additional remarks:  17. Cooler Information  Cooler No Temp®C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes  1 2.2 Good Yes	Completed By:	Emily Mo	cho	11/18/2	020 11:30:2	25 AM			
1. Is Chain of Custody complete? 2. How was the sample delivered?  Courier  Log In  3. Was an attempt made to cool the samples?  4. Were all samples received at a temperature of >0° C to 6.0°C  Sample(s) in proper container(s)?  6. Sufficient sample volume for indicated test(s)?  7. Are samples (except VOA and ONG) properly preserved?  8. Was preservative added to bottles?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  10. Were any sample containers received broken?  11. Does paperwork match bottle labels?  (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  14. Were all holding times able to be met?  (14. Were all holding times able to be met?  (15. Was client notified of all discrepancies with this order?  Person Notified:  Person Notified:  Date:   Reviewed By:	SPA	11.18	3.20						
2. How was the sample delivered?  Log In 3. Was an attempt made to cool the samples?  4. Were all samples received at a temperature of >0° C to 6.0°C  4. Were all samples received at a temperature of >0° C to 6.0°C  5. Sample(s) in proper container(s)?  6. Sufficient sample volume for indicated test(s)?  7. Are samples (except VOA and ONG) properly preserved?  8. Was preservative added to bottles?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  10. Were any sample containers received broken?  11. Does paperwork match bottle labels?  (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  13. Is it clear what analyses were requested?  14. Were all holding times able to be met?  (If no, notify customer for authorization.)  Special Handling (If applicable)  15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Regarding:  Client Instructions:  16. Additional remarks:  17. Cooler Information  Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes  2 2.2 Good Yes	Chain of Cus	<u>tody</u>							
3. Was an attempt made to cool the samples?  4. Were all samples received at a temperature of >0° C to 6.0°C  4. Were all samples received at a temperature of >0° C to 6.0°C  5. Sample(s) in proper container(s)?  6. Sufficient sample volume for indicated test(s)?  7. Are samples (except VOA and ONG) properly preserved?  8. Was preservative added to bottles?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  10. Were any sample containers received broken?  11. Does paperwork match bottle labels?  (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  13. Is it clear what analyses were requested?  14. Were all holding times able to be met?  (If no, notify customer for authorization.)  Special Handling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Regarding:  Client Instructions:  16. Additional remarks:  17. Cooler Information  Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes	1. Is Chain of Cu	ustody comp	lete?			Yes 🗸	No 🗌	Not Present	
3. Was an attempt made to cool the samples?  4. Were all samples received at a temperature of >0° C to 6.0°C  4. Were all samples received at a temperature of >0° C to 6.0°C  5. Sample(s) in proper container(s)?  6. Sufficient sample volume for indicated test(s)?  7. Are samples (except VOA and ONG) properly preserved?  8. Was preservative added to bottles?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  10. Were any sample containers received broken?  11. Does paperwork match bottle labels?  (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  13. Is it clear what analyses were requested?  14. Were all lodding times able to be met?  (If no, notify customer for authorization.)  Special Handling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Person Notified:  Date:  By Whom:  Regarding:  Client Instructions:  16. Additional remarks:  17. Cooler Information  Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes	2. How was the	sample deliv	rered?			Courier			
4. Were all samples received at a temperature of >0° C to 6.0°C  Yes  No  No  NA  Sample(s) in proper container(s)?  Yes  No  No  Sample(s) in proper container(s)?  Yes  No  No  No  No  No  No  No  No  No  N	<u>Log In</u>								
5. Sample(s) in proper container(s)?  7. Are samples (except VOA and ONG) properly preserved?  8. Was preservative added to bottles?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  10. Were any sample containers received broken?  11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  13. Is it clear what analyses were requested?  14. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handlling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified: By Whom:  Regarding: Client Instructions:  16. Additional remarks:  17. Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By 1 2.1 Good Yes 2 2.2 Good Yes	3. Was an attem	pt made to d	cool the samp	les?		Yes 🗸	No 🗌	NA 🗌	
6. Sufficient sample volume for indicated test(s)? 7. Are samples (except VOA and ONG) properly preserved? 8. Was preservative added to bottles? 9. Received at least 1 vial with headspace <1/4" for AQ VOA? 10. Were any sample containers received broken? 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) 12. Are matrices correctly identified on Chain of Custody? 13. Is it clear what analyses were requested? 14. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable) 15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Regarding: Client Instructions:  16. Additional remarks:  17. Cooler Information  Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By 1 2.1 Good Yes 2 2.2 Good Yes	4. Were all samp	oles received	at a tempera	ture of >0° C	to 6.0°C	Yes 🗸	No 🗌	NA 🗆	
7. Are samples (except VOA and ONG) properly preserved? 8. Was preservative added to bottles? 9. Received at least 1 vial with headspace <1/4" for AQ VOA? 10. Were any sample containers received broken? 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) 12. Are matrices correctly identified on Chain of Custody? 13. Is it clear what analyses were requested? 14. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable) 15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Regarding: Client Instructions:  16. Additional remarks:  17. Cooler Information  Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2. 1 Good Yes 2 2. 2 Good Yes	5. Sample(s) in p	oroper conta	iner(s)?			Yes 🗸	No 🗌		
8. Was preservative added to bottles?  9. Received at least 1 vial with headspace <1/4" for AQ VOA?  10. Were any sample containers received broken?  11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  14. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  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 2.1 Good Yes  No No NA PA  No Pinch Na Pair Person  Regard By  1 2.1 Good Yes  No Seal Date Signed By  1 2.1 Good Yes	6. Sufficient sam	ple volume f	or indicated to	est(s)?		Yes 🗸	No 🗌		
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes  No  No  NA  10. Were any sample containers received broken? Yes  No  11. Does paperwork match bottle labels? Yes  No  bottles checked for pH: (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody? Yes  No  Adjusted?  13. Is it clear what analyses were requested? Yes  No  Checked by: \( \frac{1}{2} \) Checked by:	7. Are samples (	except VOA	and ONG) pro	operly preserve	ed?	Yes 🗸	No 🗌		
10. Were any sample containers received broken?  Yes No # for preserved bottles checked for pH: (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  13. Is it clear what analyses were requested?  14. Were all holding times able to be met? (If no, notify customer for authorization.)  Sepecial Handling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Person Notified:  By Whom:  Cient Instructions:  16. Additional remarks:  17. Cooler No Temp C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes 2 Cooler No Temp C Condition Seal Intact Seal No Seal Date Signed By 2 2.2 Good Yes	8. Was preservat	tive added to	bottles?			Yes	No 🗸	NA 🗌	
# of preserved bottles checked for ph:  (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  13. Is it clear what analyses were requested?  14. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Regarding:  Client Instructions:  16. Additional remarks:  17. Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes  2 0 No Ho Preserved bottles checked bottles checked bottles checked bottles checked bottles checked bottles checked for ph:  (<2 or >12 unless not Adjusted?  No Checked by: \$\sum_{\text{C}} \text{U[] \text{V(2)}}\$  Person Notified:  By Whom:  Cooler Information  Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes  2 2.2 Good Yes	9. Received at le	ast 1 vial wit	h headspace	<1/4" for AQ V	OA?	Yes 🗸	No 🗌	NA 🗌	/
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)  12. Are matrices correctly identified on Chain of Custody?  13. Is it clear what analyses were requested?  14. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified: By Whom: Via:eMailPhoneFaxIn Person  Regarding: Client Instructions:  16. Additional remarks:  17. Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1	10. Were any sam	nple containe	ers received b	roken?		Yes	No 🗸	# of preserved	
13. Is it clear what analyses were requested?  14. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Regarding:  Client Instructions:  16. Additional remarks:  17. Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes 2 2.2 Good Yes				·)		Yes 🗹	No 🗆	bottles checked for pH:	>12 unless noted)
14. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  15. Was client notified of all discrepancies with this order?  Person Notified:  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 2.1 Good Yes 2 2.2 Good Yes	12. Are matrices c	orrectly iden	tified on Chai	n of Custody?		Yes 🗸	No 🗌	Adjusted?	
(If no, notify customer for authorization.)  Special Handling (if applicable)  15. Was client notified of all discrepancies with this order? Yes No NA P  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 2.1 Good Yes 2 2.2 Good Yes	13. Is it clear what	analyses we	ere requested	?		Yes 🗸	No 🗌		
Person Notified:    Person Notified:						Yes 🗸	No 🗌	Checked by: S	GL 11/11/20
Person Notified:  By Whom:  Regarding:  Client Instructions:  16. Additional remarks:  17. Cooler Information  Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes  2 2.2 Good Yes	Special Handli	ing (if app	olicable)						
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 2.1 Good Yes    2 2.2 Good Yes	15. Was client no	tified of all di	iscrepancies v	with this order?		Yes	No 🗌	NA 🗸	
Regarding: Client Instructions:  16. Additional remarks:  17. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes 2 2.2 Good Yes	Person	Notified:		PARTICIPATE ATTECCEDED STREET, LESS TRANSPORTED DE	Date		MALESCON AND STREET,		
Client Instructions:  16. Additional remarks:  17. Cooler Information  Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes  2 2.2 Good Yes	By Who	m:			Via:	_ eMail _	Phone  Fax	☐ In Person	
16. Additional remarks:  17. Cooler Information  Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 2.1 Good Yes  2 2.2 Good Yes	Regardi	ng:					COLUMN DANCES OF STREET, ST.	AND DESCRIPTION OF THE PROPERTY OF	
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Chain-of-Custody Record			او		8800	mail or Fax#: Chris 1: we Mathews @ a hol. com Project Manager:	U □ Level 4 (Full Validation)	☐ Az Compliance				Sample Name	N-MW-(	GW-1120925-1116BC-CN-MW-Z	Car-1(209235-1116.20-CN-111015	9120925-111620-CN-MW4	Cho.11209256-111620-101/1010	94-11109725-1111,20-111,40DD						M	11110
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# Appendix B Soil Laboratory Analytical Report



Website: clients.hallenvironmental.com

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

4901 Hawkins NE

Albuquerque, NM 87109

July 22, 2020

Christine Mathews

**GHD** 

6121 Indian School Road, NE #200

Albuquerque, NM 87110

TEL: (505) 884-0672

FAX

RE: 0-6-1 OrderNo.: 2007738

#### Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 20 sample(s) on 7/15/2020 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

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 2007738

Date Reported: 7/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-001 **Collection Date:** 7/14/2020 9:35:00 AM

Client Sample ID: S-11135241-071420-CN-DP1-5' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/19/2020 11:11:59 PM 53812 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/18/2020 4:50:15 AM 53743 4.9 mg/Kg 1 Surr: BFB 94.1 70-130 %Rec 1 7/18/2020 4:50:15 AM 53743 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.9 mg/Kg 7/17/2020 7:48:23 PM 53751 1 Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 7/17/2020 7:48:23 PM 53751 Surr: DNOP 139 55.1-146 %Rec 7/17/2020 7:48:23 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.025 7/18/2020 4:50:15 AM 53743 mg/Kg Toluene ND 0.049 mg/Kg 1 7/18/2020 4:50:15 AM 53743 Ethylbenzene ND 0.049 mg/Kg 1 7/18/2020 4:50:15 AM 53743 Xylenes, Total ND 0.098 mg/Kg 1 7/18/2020 4:50:15 AM 53743 Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 1 7/18/2020 4:50:15 AM 53743 Surr: 4-Bromofluorobenzene 91.2 70-130 %Rec 7/18/2020 4:50:15 AM 53743 Surr: Dibromofluoromethane 110 70-130 %Rec 7/18/2020 4:50:15 AM 53743 1 Surr: Toluene-d8 101 70-130 %Rec 7/18/2020 4:50:15 AM 53743

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

#### 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 27

Lab Order: 2007738

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/22/2020

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-002 **Collection Date:** 7/14/2020 9:46:00 AM

Client Sample ID: S-11135241-071420-CN-DP1-10' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/20/2020 12:13:43 AM 53812 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 24 5 7/18/2020 5:18:50 AM 53743 mg/Kg Surr: BFB 96.1 70-130 %Rec 5 7/18/2020 5:18:50 AM 53743 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 8.7 mg/Kg 7/17/2020 8:19:26 PM 53751 1 Motor Oil Range Organics (MRO) ND 44 mg/Kg 1 7/17/2020 8:19:26 PM 53751 Surr: DNOP 104 55.1-146 %Rec 1 7/17/2020 8:19:26 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 7/18/2020 5:18:50 AM 53743 0.12 mg/Kg 5 Toluene ND 5 0.24 mg/Kg 7/18/2020 5:18:50 AM 53743 Ethylbenzene ND 0.24 mg/Kg 5 7/18/2020 5:18:50 AM 53743 Xylenes, Total ND 0.49 mg/Kg 5 7/18/2020 5:18:50 AM 53743 Surr: 1,2-Dichloroethane-d4 106 70-130 %Rec 5 7/18/2020 5:18:50 AM 53743 Surr: 4-Bromofluorobenzene 93.8 70-130 %Rec 5 7/18/2020 5:18:50 AM 53743 Surr: Dibromofluoromethane 106 70-130 %Rec 5 7/18/2020 5:18:50 AM 53743 Surr: Toluene-d8 103 70-130 %Rec 5 7/18/2020 5:18:50 AM 53743

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

#### 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 7/22/2020

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-003 **Collection Date:** 7/14/2020 10:00:00 AM

Client Sample ID: S-11135241-071420-CN-DP1-15' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 69 60 7/20/2020 12:26:03 AM 53812 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/18/2020 5:47:24 AM 53743 4.8 mg/Kg 1 Surr: BFB 95.1 70-130 %Rec 1 7/18/2020 5:47:24 AM 53743 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.6 mg/Kg 7/17/2020 8:29:43 PM 53751 1 Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 7/17/2020 8:29:43 PM 53751 Surr: DNOP 110 55.1-146 %Rec 7/17/2020 8:29:43 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.024 7/18/2020 5:47:24 AM 53743 mg/Kg Toluene ND 0.048 mg/Kg 1 7/18/2020 5:47:24 AM 53743 Ethylbenzene ND 0.048 mg/Kg 1 7/18/2020 5:47:24 AM 53743 Xylenes, Total ND 0.095 mg/Kg 1 7/18/2020 5:47:24 AM 53743 Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 1 7/18/2020 5:47:24 AM 53743 Surr: 4-Bromofluorobenzene 89.3 70-130 %Rec 7/18/2020 5:47:24 AM 53743 Surr: Dibromofluoromethane 104 70-130 %Rec 7/18/2020 5:47:24 AM 53743 1 Surr: Toluene-d8 102 70-130 %Rec 7/18/2020 5:47:24 AM 53743

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

#### 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/22/2020

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-004 **Collection Date:** 7/14/2020 10:20:00 AM

Client Sample ID: S-11135241-071420-CN-DP1-20' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 750 60 7/20/2020 12:38:24 AM 53812 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/18/2020 3:48:58 PM 53744 4.8 mg/Kg 1 Surr: BFB 98.2 70-130 %Rec 1 7/18/2020 3:48:58 PM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.7 mg/Kg 7/17/2020 8:40:01 PM 53751 1 Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 7/17/2020 8:40:01 PM 53751 Surr: DNOP 116 55.1-146 %Rec 7/17/2020 8:40:01 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.024 7/18/2020 3:48:58 PM 53744 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 7/18/2020 3:48:58 PM 53744 Ethylbenzene ND 0.048 mg/Kg 1 7/18/2020 3:48:58 PM 53744 Xylenes, Total ND 0.097 mg/Kg 1 7/18/2020 3:48:58 PM 53744 Surr: 1,2-Dichloroethane-d4 103 70-130 %Rec 1 7/18/2020 3:48:58 PM 53744 Surr: 4-Bromofluorobenzene 99.2 70-130 %Rec 7/18/2020 3:48:58 PM 53744 Surr: Dibromofluoromethane 108 70-130 %Rec 7/18/2020 3:48:58 PM 53744 1 Surr: Toluene-d8 102 70-130 %Rec 7/18/2020 3:48:58 PM 53744

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

#### 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 Lim
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Date Reported: 7/22/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-005 **Collection Date:** 7/14/2020 10:55:00 AM

Client Sample ID: S-11135241-071420-CN-DP2-5' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/20/2020 12:50:45 AM 53812 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 4.7 7/18/2020 5:15:07 PM 53744 mg/Kg 1 Surr: BFB 94.1 70-130 %Rec 1 7/18/2020 5:15:07 PM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 8.8 mg/Kg 7/17/2020 8:50:19 PM 53751 1 Motor Oil Range Organics (MRO) ND 44 mg/Kg 1 7/17/2020 8:50:19 PM 53751 Surr: DNOP 135 55.1-146 %Rec 7/17/2020 8:50:19 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.024 7/18/2020 5:15:07 PM 53744 mg/Kg Toluene ND 53744 0.047 mg/Kg 1 7/18/2020 5:15:07 PM Ethylbenzene ND 0.047 mg/Kg 1 7/18/2020 5:15:07 PM 53744 Xylenes, Total ND 0.095 mg/Kg 1 7/18/2020 5:15:07 PM 53744 Surr: 1,2-Dichloroethane-d4 107 70-130 %Rec 1 7/18/2020 5:15:07 PM 53744 Surr: 4-Bromofluorobenzene 96.5 70-130 %Rec 7/18/2020 5:15:07 PM 53744 Surr: Dibromofluoromethane 112 70-130 %Rec 7/18/2020 5:15:07 PM 53744 1 Surr: Toluene-d8 100 70-130 %Rec 7/18/2020 5:15:07 PM 53744

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

#### 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/22/2020

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-006 **Collection Date:** 7/14/2020 11:10:00 AM

Client Sample ID: S-11135241-071420-CN-DP2-10' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/20/2020 1:03:05 AM 53812 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 4.7 7/18/2020 6:42:42 PM 53744 mg/Kg 1 Surr: BFB 92.7 70-130 %Rec 1 7/18/2020 6:42:42 PM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.9 mg/Kg 7/17/2020 9:00:34 PM 53751 1 Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 7/17/2020 9:00:34 PM 53751 Surr: DNOP 106 55.1-146 %Rec 7/17/2020 9:00:34 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.023 7/18/2020 6:42:42 PM 53744 mg/Kg Toluene ND 0.047 mg/Kg 1 7/18/2020 6:42:42 PM 53744 Ethylbenzene ND 0.047 mg/Kg 1 7/18/2020 6:42:42 PM 53744 Xylenes, Total ND 0.094 mg/Kg 1 7/18/2020 6:42:42 PM 53744 Surr: 1,2-Dichloroethane-d4 103 70-130 %Rec 1 7/18/2020 6:42:42 PM 53744 Surr: 4-Bromofluorobenzene 94.0 70-130 %Rec 7/18/2020 6:42:42 PM 53744 Surr: Dibromofluoromethane 112 70-130 %Rec 7/18/2020 6:42:42 PM 53744 1 Surr: Toluene-d8 94.7 70-130 %Rec 7/18/2020 6:42:42 PM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/22/2020

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-007 **Collection Date:** 7/14/2020 11:20:00 AM

Client Sample ID: S-11135241-071420-CN-DP2-15' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/20/2020 1:15:26 AM 53812 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/18/2020 7:11:35 PM 53744 4.9 mg/Kg 1 Surr: BFB 94.1 70-130 %Rec 1 7/18/2020 7:11:35 PM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.2 mg/Kg 7/17/2020 9:10:50 PM 53751 1 Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 7/17/2020 9:10:50 PM 53751 Surr: DNOP 117 55.1-146 %Rec 7/17/2020 9:10:50 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.025 7/18/2020 7:11:35 PM 53744 mg/Kg Toluene ND 0.049 mg/Kg 1 7/18/2020 7:11:35 PM 53744 Ethylbenzene ND 0.049 mg/Kg 1 7/18/2020 7:11:35 PM 53744 Xylenes, Total ND 0.099 mg/Kg 1 7/18/2020 7:11:35 PM 53744 Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 1 7/18/2020 7:11:35 PM 53744 Surr: 4-Bromofluorobenzene 94.9 70-130 %Rec 7/18/2020 7:11:35 PM 53744 Surr: Dibromofluoromethane 70-130 %Rec 7/18/2020 7:11:35 PM 53744 113 1 Surr: Toluene-d8 95.9 70-130 %Rec 7/18/2020 7:11:35 PM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Date Reported: 7/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-008 **Collection Date:** 7/14/2020 11:25:00 AM

Client Sample ID: S-11135241-071420-CN-DP2-20' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 78 60 7/20/2020 1:27:46 AM 53812 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/18/2020 7:40:22 PM 53744 4.6 mg/Kg 1 Surr: BFB 90.8 70-130 %Rec 1 7/18/2020 7:40:22 PM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.6 mg/Kg 7/17/2020 9:21:03 PM 53751 1 Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 7/17/2020 9:21:03 PM 53751 Surr: DNOP 134 55.1-146 %Rec 7/17/2020 9:21:03 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.023 7/18/2020 7:40:22 PM 53744 mg/Kg Toluene ND 7/18/2020 7:40:22 PM 0.046 mg/Kg 1 53744 Ethylbenzene ND 0.046 mg/Kg 1 7/18/2020 7:40:22 PM 53744 Xylenes, Total ND 0.093 mg/Kg 1 7/18/2020 7:40:22 PM 53744 Surr: 1,2-Dichloroethane-d4 103 70-130 %Rec 1 7/18/2020 7:40:22 PM 53744 Surr: 4-Bromofluorobenzene 98.3 70-130 %Rec 7/18/2020 7:40:22 PM 53744 Surr: Dibromofluoromethane 116 70-130 %Rec 7/18/2020 7:40:22 PM 53744 1 Surr: Toluene-d8 94.4 70-130 %Rec 7/18/2020 7:40:22 PM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: **7/22/2020** 

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-009 **Collection Date:** 7/14/2020 11:45:00 AM

Client Sample ID: S-11135241-071420-CN-DP3-5' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/20/2020 1:40:07 AM 53812 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 4.7 7/18/2020 8:09:07 PM 53744 mg/Kg 1 Surr: BFB 95.4 70-130 %Rec 1 7/18/2020 8:09:07 PM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.4 mg/Kg 7/17/2020 9:31:19 PM 53751 1 Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 7/17/2020 9:31:19 PM 53751 Surr: DNOP 87.4 55.1-146 %Rec 7/17/2020 9:31:19 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.024 7/18/2020 8:09:07 PM 53744 mg/Kg Toluene ND 53744 0.047 mg/Kg 1 7/18/2020 8:09:07 PM Ethylbenzene ND 0.047 mg/Kg 1 7/18/2020 8:09:07 PM 53744 Xylenes, Total ND 0.095 mg/Kg 1 7/18/2020 8:09:07 PM 53744 Surr: 1,2-Dichloroethane-d4 106 70-130 %Rec 1 7/18/2020 8:09:07 PM 53744 Surr: 4-Bromofluorobenzene 99.2 70-130 %Rec 7/18/2020 8:09:07 PM 53744 Surr: Dibromofluoromethane 117 70-130 %Rec 7/18/2020 8:09:07 PM 53744 1 Surr: Toluene-d8 95.9 70-130 %Rec 7/18/2020 8:09:07 PM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

#### Hall Environmental Analysis Laboratory, Inc. Date Reported: 7/22/2020

**CLIENT: GHD** Lab Order: 2007738

**Project:** 0-6-1

Lab ID: 2007738-010 Collection Date: 7/14/2020 11:50:00 AM

Client Sample ID: S-11135241-071420-CN-DP3-10' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/20/2020 2:17:08 AM 53812 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 4.7 7/18/2020 8:37:50 PM 53744 mg/Kg 1 Surr: BFB 91.9 70-130 %Rec 1 7/18/2020 8:37:50 PM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.4 mg/Kg 7/17/2020 9:41:30 PM 53751 1 Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 7/17/2020 9:41:30 PM 53751 Surr: DNOP 95.6 55.1-146 %Rec 7/17/2020 9:41:30 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.024 7/18/2020 8:37:50 PM 53744 mg/Kg Toluene ND 0.047 mg/Kg 1 7/18/2020 8:37:50 PM 53744 Ethylbenzene ND 0.047 mg/Kg 1 7/18/2020 8:37:50 PM 53744 Xylenes, Total ND 0.094 mg/Kg 1 7/18/2020 8:37:50 PM 53744 Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 1 7/18/2020 8:37:50 PM 53744 Surr: 4-Bromofluorobenzene 94.7 70-130 %Rec 7/18/2020 8:37:50 PM 53744 Surr: Dibromofluoromethane 70-130 %Rec 7/18/2020 8:37:50 PM 53744 114 1 Surr: Toluene-d8 96.2 70-130 %Rec 7/18/2020 8:37:50 PM 53744

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

## Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- $\mathbf{E}$ Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Date Reported: 7/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-011 **Collection Date:** 7/14/2020 12:00:00 PM

Client Sample ID: S-11135241-071420-CN-DP3-15' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/20/2020 2:29:29 AM 53812 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/18/2020 9:06:33 PM 53744 4.6 mg/Kg 1 Surr: BFB 95.0 70-130 %Rec 1 7/18/2020 9:06:33 PM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.5 mg/Kg 7/17/2020 9:51:44 PM 53751 1 Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 7/17/2020 9:51:44 PM 53751 Surr: DNOP 123 55.1-146 %Rec 7/17/2020 9:51:44 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.023 7/18/2020 9:06:33 PM 53744 mg/Kg Toluene ND 0.046 mg/Kg 1 7/18/2020 9:06:33 PM 53744 Ethylbenzene ND 0.046 mg/Kg 1 7/18/2020 9:06:33 PM 53744 Xylenes, Total ND 0.092 mg/Kg 1 7/18/2020 9:06:33 PM 53744 Surr: 1,2-Dichloroethane-d4 107 70-130 %Rec 1 7/18/2020 9:06:33 PM 53744 Surr: 4-Bromofluorobenzene 97.5 70-130 %Rec 7/18/2020 9:06:33 PM 53744 Surr: Dibromofluoromethane 115 70-130 %Rec 7/18/2020 9:06:33 PM 53744 1 Surr: Toluene-d8 100 70-130 %Rec 7/18/2020 9:06:33 PM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/22/2020

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-012 **Collection Date:** 7/14/2020 12:15:00 PM

Client Sample ID: S-11135241-071420-CN-DP3-20' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/19/2020 8:58:48 PM 53811 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/18/2020 10:03:50 PM 53744 4.9 mg/Kg 1 Surr: BFB 96.8 70-130 %Rec 7/18/2020 10:03:50 PM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.7 mg/Kg 7/17/2020 10:01:54 PM 53751 1 Motor Oil Range Organics (MRO) 7/17/2020 10:01:54 PM 53751 ND 49 mg/Kg 1 Surr: DNOP 117 55.1-146 %Rec 7/17/2020 10:01:54 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.025 7/18/2020 10:03:50 PM 53744 mg/Kg Toluene ND 0.049 mg/Kg 1 7/18/2020 10:03:50 PM 53744 Ethylbenzene ND 0.049 mg/Kg 1 7/18/2020 10:03:50 PM 53744 Xylenes, Total ND 0.098 mg/Kg 1 7/18/2020 10:03:50 PM 53744 Surr: 1,2-Dichloroethane-d4 103 70-130 %Rec 1 7/18/2020 10:03:50 PM 53744 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 7/18/2020 10:03:50 PM 53744 Surr: Dibromofluoromethane 110 70-130 %Rec 7/18/2020 10:03:50 PM 53744 1 Surr: Toluene-d8 99.4 70-130 %Rec 7/18/2020 10:03:50 PM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Date Reported: 7/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-013 **Collection Date:** 7/14/2020 12:35:00 PM

Client Sample ID: S-11135241-071420-CN-DP4-5' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/19/2020 10:00:51 PM 53811 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 5.0 7/18/2020 10:32:25 PM 53744 mg/Kg 1 Surr: BFB 96.0 70-130 %Rec 1 7/18/2020 10:32:25 PM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.5 mg/Kg 7/17/2020 10:12:05 PM 53751 1 Motor Oil Range Organics (MRO) 7/17/2020 10:12:05 PM 53751 ND 47 mg/Kg 1 Surr: DNOP 37.4 55.1-146 S %Rec 7/17/2020 10:12:05 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.025 7/18/2020 10:32:25 PM 53744 mg/Kg Toluene ND 0.050 mg/Kg 1 7/18/2020 10:32:25 PM 53744 Ethylbenzene ND 0.050 mg/Kg 1 7/18/2020 10:32:25 PM 53744 Xylenes, Total ND 0.10 mg/Kg 1 7/18/2020 10:32:25 PM 53744 Surr: 1,2-Dichloroethane-d4 107 70-130 %Rec 1 7/18/2020 10:32:25 PM 53744 Surr: 4-Bromofluorobenzene 92.9 70-130 %Rec 7/18/2020 10:32:25 PM 53744 Surr: Dibromofluoromethane 113 70-130 %Rec 7/18/2020 10:32:25 PM 53744 1 Surr: Toluene-d8 103 70-130 %Rec 7/18/2020 10:32:25 PM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Date Reported: 7/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-014 **Collection Date:** 7/14/2020 12:40:00 PM

Client Sample ID: S-11135241-071420-CN-DP4-10' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/19/2020 10:13:16 PM 53811 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/19/2020 12:55:21 AM 53744 4.8 mg/Kg 1 Surr: BFB 93.7 70-130 %Rec 7/19/2020 12:55:21 AM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.5 mg/Kg 7/17/2020 10:22:13 PM 53751 1 Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 7/17/2020 10:22:13 PM 53751 Surr: DNOP 29.3 55.1-146 S %Rec 7/17/2020 10:22:13 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.024 7/19/2020 12:55:21 AM 53744 mg/Kg Toluene ND 0.048 mg/Kg 1 7/19/2020 12:55:21 AM 53744 Ethylbenzene ND 0.048 mg/Kg 1 7/19/2020 12:55:21 AM 53744 Xylenes, Total ND 0.097 mg/Kg 1 7/19/2020 12:55:21 AM 53744 Surr: 1,2-Dichloroethane-d4 102 70-130 %Rec 1 7/19/2020 12:55:21 AM 53744 Surr: 4-Bromofluorobenzene 91.0 70-130 %Rec 7/19/2020 12:55:21 AM 53744 Surr: Dibromofluoromethane 104 70-130 %Rec 7/19/2020 12:55:21 AM 53744 Surr: Toluene-d8 99.7 70-130 %Rec 7/19/2020 12:55:21 AM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/22/2020

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-015 **Collection Date:** 7/14/2020 12:50:00 PM

Client Sample ID: S-11135241-071420-CN-DP4-15' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/19/2020 10:25:40 PM 53811 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/19/2020 1:23:58 AM 53744 4.8 mg/Kg 1 Surr: BFB 98.3 70-130 %Rec 1 7/19/2020 1:23:58 AM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 10 mg/Kg 7/17/2020 10:32:21 PM 53751 1 Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 7/17/2020 10:32:21 PM 53751 Surr: DNOP 38.2 55.1-146 S %Rec 7/17/2020 10:32:21 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.024 7/19/2020 1:23:58 AM 53744 mg/Kg Toluene ND 0.048 mg/Kg 1 7/19/2020 1:23:58 AM 53744 Ethylbenzene ND 0.048 mg/Kg 1 7/19/2020 1:23:58 AM 53744 Xylenes, Total ND 0.096 mg/Kg 1 7/19/2020 1:23:58 AM 53744 Surr: 1,2-Dichloroethane-d4 105 70-130 %Rec 1 7/19/2020 1:23:58 AM 53744 Surr: 4-Bromofluorobenzene 92.7 70-130 %Rec 7/19/2020 1:23:58 AM 53744 Surr: Dibromofluoromethane 70-130 %Rec 53744 110 1 7/19/2020 1:23:58 AM Surr: Toluene-d8 103 70-130 %Rec 7/19/2020 1:23:58 AM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Date Reported: 7/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-016 **Collection Date:** 7/14/2020 12:55:00 PM

Client Sample ID: S-11135241-071420-CN-DP4-20' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 83 60 7/19/2020 10:38:05 PM 53811 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 4.7 7/19/2020 1:52:28 AM 53744 mg/Kg 1 Surr: BFB 95.2 70-130 %Rec 1 7/19/2020 1:52:28 AM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.3 mg/Kg 7/17/2020 10:42:27 PM 53751 1 Motor Oil Range Organics (MRO) 7/17/2020 10:42:27 PM 53751 ND 46 mg/Kg 1 Surr: DNOP 48.3 55.1-146 S %Rec 7/17/2020 10:42:27 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.023 7/19/2020 1:52:28 AM 53744 mg/Kg Toluene ND 0.047 mg/Kg 1 7/19/2020 1:52:28 AM 53744 Ethylbenzene ND 0.047 mg/Kg 1 7/19/2020 1:52:28 AM 53744 Xylenes, Total ND 0.094 mg/Kg 1 7/19/2020 1:52:28 AM 53744 Surr: 1,2-Dichloroethane-d4 103 70-130 %Rec 1 7/19/2020 1:52:28 AM 53744 Surr: 4-Bromofluorobenzene 95.4 70-130 %Rec 7/19/2020 1:52:28 AM 53744 Surr: Dibromofluoromethane 109 70-130 %Rec 7/19/2020 1:52:28 AM 53744 1 Surr: Toluene-d8 101 70-130 %Rec 7/19/2020 1:52:28 AM 53744

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

## 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 Lin
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/22/2020

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-017 **Collection Date:** 7/14/2020 1:20:00 PM

Client Sample ID: S-11135241-071420-CN-DP5-5' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/19/2020 10:50:30 PM 53811 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/19/2020 2:21:03 AM 53744 4.8 mg/Kg 1 Surr: BFB 95.9 70-130 %Rec 1 7/19/2020 2:21:03 AM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: JME Diesel Range Organics (DRO) 10 9.5 mg/Kg 7/19/2020 6:33:17 AM 53751 1 Motor Oil Range Organics (MRO) 100 47 mg/Kg 1 7/19/2020 6:33:17 AM 53751 Surr: DNOP 80.1 55.1-146 %Rec 7/19/2020 6:33:17 AM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.024 7/19/2020 2:21:03 AM 53744 mg/Kg Toluene ND 0.048 mg/Kg 1 7/19/2020 2:21:03 AM 53744 Ethylbenzene ND 0.048 mg/Kg 1 7/19/2020 2:21:03 AM 53744 Xylenes, Total ND 0.096 mg/Kg 1 7/19/2020 2:21:03 AM 53744 Surr: 1,2-Dichloroethane-d4 102 70-130 %Rec 1 7/19/2020 2:21:03 AM 53744 Surr: 4-Bromofluorobenzene 100 70-130 %Rec 7/19/2020 2:21:03 AM 53744 Surr: Dibromofluoromethane 110 70-130 %Rec 7/19/2020 2:21:03 AM 53744 1 Surr: Toluene-d8 100 70-130 %Rec 7/19/2020 2:21:03 AM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Date Reported: 7/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-018 **Collection Date:** 7/14/2020 1:25:00 PM

Client Sample ID: S-11135241-071420-CN-DP5-10' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/20/2020 12:12:44 PM 53826 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 5.0 7/19/2020 2:49:39 AM 53744 mg/Kg 1 Surr: BFB 95.5 70-130 %Rec 1 7/19/2020 2:49:39 AM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: JME Diesel Range Organics (DRO) 10 9.0 mg/Kg 7/19/2020 6:57:23 AM 53751 1 Motor Oil Range Organics (MRO) 110 45 mg/Kg 1 7/19/2020 6:57:23 AM 53751 Surr: DNOP 81.4 55.1-146 %Rec 7/19/2020 6:57:23 AM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.025 7/19/2020 2:49:39 AM 53744 mg/Kg Toluene ND 0.050 mg/Kg 1 7/19/2020 2:49:39 AM 53744 Ethylbenzene ND 0.050 mg/Kg 1 7/19/2020 2:49:39 AM 53744 Xylenes, Total ND 0.10 mg/Kg 1 7/19/2020 2:49:39 AM 53744 Surr: 1,2-Dichloroethane-d4 98.9 70-130 %Rec 1 7/19/2020 2:49:39 AM 53744 Surr: 4-Bromofluorobenzene 95.0 70-130 %Rec 7/19/2020 2:49:39 AM 53744 Surr: Dibromofluoromethane 111 70-130 %Rec 53744 1 7/19/2020 2:49:39 AM Surr: Toluene-d8 100 70-130 %Rec 7/19/2020 2:49:39 AM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

Date Reported: 7/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-019 **Collection Date:** 7/14/2020 1:35:00 PM

Client Sample ID: S-11135241-071420-CN-DP5-15' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/20/2020 12:49:58 PM 53826 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 5.0 7/19/2020 3:18:17 AM 53744 mg/Kg 1 Surr: BFB 97.0 70-130 %Rec 1 7/19/2020 3:18:17 AM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.2 mg/Kg 7/17/2020 11:12:54 PM 53751 1 Motor Oil Range Organics (MRO) 7/17/2020 11:12:54 PM 53751 ND 46 mg/Kg 1 Surr: DNOP 58.7 55.1-146 %Rec 7/17/2020 11:12:54 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.025 7/19/2020 3:18:17 AM 53744 mg/Kg Toluene ND 0.050 mg/Kg 1 7/19/2020 3:18:17 AM 53744 Ethylbenzene ND 0.050 mg/Kg 1 7/19/2020 3:18:17 AM 53744 Xylenes, Total ND 0.099 mg/Kg 1 7/19/2020 3:18:17 AM 53744 Surr: 1,2-Dichloroethane-d4 105 70-130 %Rec 1 7/19/2020 3:18:17 AM 53744 Surr: 4-Bromofluorobenzene 97.7 70-130 %Rec 7/19/2020 3:18:17 AM 53744 Surr: Dibromofluoromethane 70-130 %Rec 7/19/2020 3:18:17 AM 53744 111 1 Surr: Toluene-d8 102 70-130 %Rec 7/19/2020 3:18:17 AM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order: 2007738

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/22/2020

CLIENT: GHD Lab Order: 2007738

**Project:** 0-6-1

**Lab ID:** 2007738-020 **Collection Date:** 7/14/2020 1:45:00 PM

Client Sample ID: S-11135241-071420-CN-DP5-20' Matrix: SOIL

**Analyses** Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride ND 60 7/20/2020 1:02:23 PM 53826 20 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) ND 7/19/2020 3:46:50 AM 53744 4.9 mg/Kg 1 Surr: BFB 95.3 70-130 %Rec 1 7/19/2020 3:46:50 AM 53744 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.3 mg/Kg 7/17/2020 11:23:05 PM 53751 1 Motor Oil Range Organics (MRO) 7/17/2020 11:23:05 PM 53751 ND 47 mg/Kg 1 Surr: DNOP 62.3 55.1-146 %Rec 7/17/2020 11:23:05 PM 53751 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.025 7/19/2020 3:46:50 AM 53744 mg/Kg Toluene ND 0.049 mg/Kg 1 7/19/2020 3:46:50 AM 53744 Ethylbenzene ND 0.049 mg/Kg 1 7/19/2020 3:46:50 AM 53744 Xylenes, Total ND 0.099 mg/Kg 1 7/19/2020 3:46:50 AM 53744 Surr: 1,2-Dichloroethane-d4 108 70-130 %Rec 1 7/19/2020 3:46:50 AM 53744 Surr: 4-Bromofluorobenzene 96.5 70-130 %Rec 7/19/2020 3:46:50 AM 53744 Surr: Dibromofluoromethane 113 70-130 %Rec 53744 1 7/19/2020 3:46:50 AM Surr: Toluene-d8 97.0 70-130 %Rec 7/19/2020 3:46:50 AM 53744

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

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# **OC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#: **2007738** 

22-Jul-20

Client: GHD Project: 0-6-1

Sample ID: MB-53812 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 53812 RunNo: 70454

Prep Date: 7/19/2020 Analysis Date: 7/19/2020 SeqNo: 2449940 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-53812 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 53812 RunNo: 70454

Prep Date: 7/19/2020 Analysis Date: 7/19/2020 SeqNo: 2449941 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 93.2 90 110

Sample ID: MB-53811 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 53811 RunNo: 70458

Prep Date: 7/19/2020 Analysis Date: 7/19/2020 SeqNo: 2450132 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-53811 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 53811 RunNo: 70458

Prep Date: 7/19/2020 Analysis Date: 7/19/2020 SeqNo: 2450133 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 93.7 90 110

Sample ID: MB-53826 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **53826** RunNo: **70463** 

Prep Date: 7/20/2020 Analysis Date: 7/20/2020 SeqNo: 2451222 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-53826 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 53826 RunNo: 70463

Prep Date: 7/20/2020 Analysis Date: 7/20/2020 SegNo: 2451223 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 95.2 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 range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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# **OC SUMMARY REPORT**

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2007738

22-Jul-20

**Client: GHD Project:** 0 - 6 - 1

Sample ID: 2007738-001AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: S-11135241-071420-Batch ID: 53751 RunNo: 70416

Prep Date: 7/16/2020 Analysis Date: 7/17/2020 SeqNo: 2448386 Units: mq/Kq

SPK value SPK Ref Val %RPD **RPDLimit** Analyte Result PQL %REC LowLimit HighLimit Qual Diesel Range Organics (DRO) 62 9.7 48.26 Λ 128 47.4 136 Surr: DNOP 4.7 4.826 96.5 55.1 146

Sample ID: 2007738-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: S-11135241-071420-Batch ID: 53751 RunNo: 70416

5.8

12

Prep Date: 7/16/2020 Analysis Date: 7/17/2020 SeqNo: 2448387 Units: mg/Kg

5.000

10.00

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 9.6 48.08 O 149 47.4 136 14.7 43.4 S Surr: DNOP S 7.9 4.808 164 55.1 146 0

Sample ID: LCS-53751 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 53751 RunNo: 70416 Prep Date: 7/16/2020 Analysis Date: 7/17/2020 SeqNo: 2448417 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result POI LowLimit HighLimit Qual Diesel Range Organics (DRO) 58 10 50.00 0 116 70 130

116

117

55.1

55.1

146

146

Sample ID: MB-53751 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 53751 RunNo: 70416 Prep Date: 7/16/2020 Analysis Date: 7/17/2020 SeqNo: 2448421 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Result PQL **RPDLimit** Qual Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP

Sample ID: MB-53768 TestCode: EPA Method 8015M/D: Diesel Range Organics SampType: MBLK Batch ID: 53768 Client ID: PBS RunNo: 70449 Prep Date: 7/16/2020 Analysis Date: 7/18/2020 SeqNo: 2450409 Units: %Rec Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte LowLimit Qual Surr: DNOP 8.6 10.00 86.2 55.1 146

Sample ID: LCS-53768 TestCode: EPA Method 8015M/D: Diesel Range Organics SampType: LCS

Client ID: LCSS Batch ID: 53768 RunNo: 70449

Prep Date: 7/16/2020 Analysis Date: 7/18/2020 SeqNo: 2450412 Units: %Rec

PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result LowLimit Qual

## Qualifiers:

Surr: DNOP

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

2007738 22-Jul-20

WO#:

Client: GHD Project: 0-6-1

Sample ID: LCS-53768 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 53768 RunNo: 70449

Prep Date: 7/16/2020 Analysis Date: 7/18/2020 SeqNo: 2450412 Units: %Rec

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Surr: DNOP 4.1 5.000 82.6 55.1 146

## 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 range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#: **2007738** 

22-Jul-20

Client: GHD Project: 0-6-1

Sample ID: <b>mb-53743</b>	SampT	уре: МЕ	BLK	TestCode: EPA Method 8260B: Volatiles Short List										
Client ID: PBS	Batcl	n ID: <b>53</b> 7	743	F	RunNo: 70	0438								
Prep Date: 7/15/2020	Analysis Date: 7/17/2020			9	SeqNo: 24	448698	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	ND	0.025												
Toluene	ND	0.050												
Ethylbenzene	ND	0.050												
Xylenes, Total	ND	0.10												
Surr: 1,2-Dichloroethane-d4	0.54		0.5000		109	70	130							
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.7	70	130							
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130							
Surr: Toluene-d8	0.52		0.5000		104	70	130							

Sample ID: Ics-53743	Sampl	ype: <b>LC</b>	S4	TestCode: EPA Method 8260B: Volatiles Short List											
Client ID: BatchQC	Batch ID: 53743 RunNo: 70438														
Prep Date: 7/15/2020	Analysis D	Date: 7/	17/2020	S	SeqNo: 24	448699	Units: mg/K	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual					
Benzene	0.97	0.025	1.000	0	97.0	80	120								
Toluene	0.89	0.050	1.000	0	89.2	80	120								
Ethylbenzene	0.95	0.050	1.000	0	94.9	80	120								
Xylenes, Total	2.9	0.10	3.000	0	96.5	80	120								
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		105	70	130								
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.5	70	130								
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130								
Surr: Toluene-d8	0.50		0.5000		101	70	130								

Sample ID: mb-53744	SampT	ype: ME	BLK	Test						
Client ID: PBS	Batch	n ID: <b>53</b> 7	744	R	RunNo: 70	0442				
Prep Date: 7/15/2020	Analysis D	oate: <b>7/</b>	18/2020	S	SeqNo: 24	448997	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025		_			<u>,                                      </u>	<u> </u>	<u>,                                      </u>	
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.8	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.49		0.5000		98.8	70	130			

## 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# **OC SUMMARY REPORT**

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2007738** 

22-Jul-20

Client: GHD Project: 0-6-1

Sample ID: Ics-53744 SampType: LCS4 TestCode: EPA Method 8260B: Volatiles Short List Client ID: **BatchQC** Batch ID: 53744 RunNo: 70442 Prep Date: 7/15/2020 Analysis Date: 7/18/2020 SeqNo: 2448998 Units: mg/Kg PQL SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result LowLimit HighLimit Qual Benzene 1.0 0.025 1.000 0 103 80 120 Toluene 0.91 0.050 1.000 0 91.3 80 120 0.050 0 99.2 Ethylbenzene 0.99 1.000 80 120 Xylenes, Total 3.0 0.10 3.000 0 99.9 80 120 Surr: 1,2-Dichloroethane-d4 0.51 0.5000 101 70 130 Surr: 4-Bromofluorobenzene 0.45 0.5000 90.6 70 130 Surr: Dibromofluoromethane 0.54 0.5000 108 70 130 Surr: Toluene-d8 0.5000 103 70 130 0.51

Sample ID: 2007738-004ams TestCode: EPA Method 8260B: Volatiles Short List SampType: MS4 S-11135241-071420-Batch ID: 53744 RunNo: 70442 Client ID: Prep Date: SeqNo: 2449000 7/15/2020 Analysis Date: 7/18/2020 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual 0.9930 104 Benzene 1.0 0.025 0 71.1 115 Toluene 0.98 0.050 0.9930 0 98.4 79.6 132 Ethylbenzene 0.050 0.9930 0 108 83.8 134 1 1 Xylenes, Total 3.2 0.099 2.979 0 109 82.4 132 105 70 Surr: 1,2-Dichloroethane-d4 0.52 0.4965 130 Surr: 4-Bromofluorobenzene 0.45 0.4965 89.9 70 130 Surr: Dibromofluoromethane 109 0.54 0.4965 70 130 Surr: Toluene-d8 0.50 0.4965 101 70 130

Sample ID: 2007738-004amsd SampType: MSD4 TestCode: EPA Method 8260B: Volatiles Short List S-11135241-071420-Batch ID: 53744 RunNo: 70442 Client ID: Prep Date: 7/15/2020 Analysis Date: 7/18/2020 SeqNo: 2449001 Units: mg/Kg SPK Ref Val %REC %RPD **RPDLimit** Analyte Result **PQL** SPK value LowLimit HighLimit Qual 0.023 0.9200 107 71.1 115 5.14 20 Benzene 0.98 0 Toluene 0.91 0.046 0.9200 0 99.4 79.6 132 6.63 20 Ethylbenzene 0.97 0.046 0.9200 0 105 83.8 134 10.3 20 Xylenes, Total 3.0 0.092 2.760 0 109 82.4 132 7.54 20 Surr: 1,2-Dichloroethane-d4 0.47 0.4600 102 70 130 0 0 Surr: 4-Bromofluorobenzene 0 0 0.43 0.4600 94.6 70 130 Surr: Dibromofluoromethane 0.52 0.4600 114 70 130 0 0 Surr: Toluene-d8 0.48 0.4600 103 70 130 n 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 range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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# **OC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#: 2007738

22-Jul-20

**Client: GHD Project:** 0 - 6 - 1

Sample ID: mb-53743 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: PBS Batch ID: 53743 RunNo: 70438

Prep Date: 7/15/2020 Analysis Date: 7/17/2020 SeqNo: 2448759 Units: mg/Kg

SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 480 500.0 95.8 70 130

Sample ID: Ics-53743 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 53743 RunNo: 70438

Prep Date: 7/15/2020 Analysis Date: 7/17/2020 SeqNo: 2448760 Units: mg/Kg

HighLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 18 5.0 25.00 O 72.8 70 130 Surr: BFB 460 500.0 92.0 70 130

Sample ID: mb-53744 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: PBS Batch ID: 53744 RunNo: 70442

Prep Date: 7/15/2020 Analysis Date: 7/18/2020 SeqNo: 2449036 Units: mg/Kg

SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result PQL HighLimit Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 480 500.0 96.4 70 130

Sample ID: Ics-53744 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 53744 RunNo: 70442

Prep Date: 7/15/2020 Analysis Date: 7/18/2020 SeqNo: 2449037 Units: mg/Kg

SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Result PQL LowLimit Qual Gasoline Range Organics (GRO) 19 5.0 70 25.00 75.1 130

Surr: BFB 480 500.0 95.9 70 130

Sample ID: 2007738-005ams SampType: MS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: S-11135241-071420-Batch ID: 53744 RunNo: 70442

Prep Date: 7/15/2020 Analysis Date: 7/18/2020 SeqNo: 2449040 Units: mg/Kg

Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 4.8 0 70 S 16 23.81 66.4 130 Surr: BFB 430 476.2 89.8 70 130

TestCode: EPA Method 8015D Mod: Gasoline Range Sample ID: 2007738-005amsd SampType: MSD

Client ID: S-11135241-071420-Batch ID: 53744 RunNo: 70442

Prep Date: 7/15/2020 Analysis Date: 7/18/2020 SeqNo: 2449041 Units: mg/Kg

PQL SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result LowLimit HighLimit Qual

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#: **2007738** 

22-Jul-20

Client: GHD Project: 0-6-1

Sample ID: 2007738-005amsd SampType: MSD TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: S-11135241-071420- Batch ID: 53744 RunNo: 70442

Prep Date: 7/15/2020 Analysis Date: 7/18/2020 SeqNo: 2449041 Units: mg/Kg

Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result 0 0.513 20 S Gasoline Range Organics (GRO) 16 5.0 24.75 64.2 70 130 Surr: BFB 460 495.0 92.1 70 130 0 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 range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: clients.hallenvironmental.com

# Sample Log-In Check List

Client Name: GHD Work Order Number: 2007738 RcptNo: 1 Received By: **Scott Anderson** 7/15/2020 9:30:00 AM Completed By: Hans & Juan Rojas 7/15/2020 10:31:54 AM gm 7/15/20 Reviewed By: Chain of Custody Not Present [ 1. Is Chain of Custody complete? Yes 🗸 No 🗔 2. How was the sample delivered? <u>Courier</u> <u>Log In</u> 3. Was an attempt made to cool the samples? No  $\square$ Yes 🗸 NA 🗆 4. Were all samples received at a temperature of >0° C to 6.0°C No 🗌 Yes 🗹 NA 🗌 5. Sample(s) in proper container(s)? No 🗌 Yes 🗹 No 🗆 6. Sufficient sample volume for indicated test(s)? Yes 🗹 Yes 🔽 7. Are samples (except VOA and ONG) properly preserved? No 🗆 8. Was preservative added to bottles? Yes No 🗸 NA 🗀 9. Received at least 1 vial with headspace <1/4" for AQ VOA? NA 🗹 Yes 🗌 No 🗔 Yes 🗆 10. Were any sample containers received broken? No 🗹 # of preserved bottles checked 11. Does paperwork match bottle labels? Yes 🗹 No 🗌 for pH: (Note discrepancies on chain of custody) >12 unless noted) Adjusted2 Yes 🗹 12. Are matrices correctly identified on Chain of Custody? No 🗆 13. Is it clear what analyses were requested? Yes 🔽 No 🗌 Checked by: DAD 7/15/24 14. Were all holding times able to be met? Yes 🗸 No \_\_ (If no, notify customer for authorization.) 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: Additional remarks: 17. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date 5.1 Good

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# about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

Charles Neligh Charles.Neligh@ghd.com 505.884.0672

Christine Mathews Christine.Mathews@ghd.com 505-269-0088

www.ghd.com

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

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 22468

## **CONDITIONS**

Operator:	OGRID:
ETC Texas Pipeline Ltd., Limited Partnership	328923
8111 Westchester Drive	Action Number:
Dallas, TX 75225	22468
	Action Type:
	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

## CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2020 Annual Groundwater Monitoring Report and 2021 Work Scope: Content satisfactory 1. OCD currently denies the site closure requested due to chloride and TDS levels exceeding the WQCC allowable concentrations in groundwater 2. OCD pre-approves the elimination of BTEX from any future lab analyses of the existing site wells 3. OCD pre-approves semi-annual monitor well sampling for 2022 4. OCD requires the installation of a background well (temporary or permanent) to evaluate chloride and TDS. Deadline for the installation is June 30, 2022 5. Development and sampling of the up-gradient monitor or temporary well will be analyzed initially for BTEX per US EPA Method 8260B (full suite), TDS, and chlorides 6. OCD will re-assess the site for closure upon receiving the initial monitor or temporary well lab report 7. Submit summarized activities completed and their results in a 2021 Annual Report. Submittal to OCD expected no later than March 31,2022.	2/16/2022