Form C-141
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State of New Mexico
Oil Conservation Division

Incident ID	nAPP21285512
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Karolanne Hudgens Title: HSE Remediation Specialist II

Signature: [signature] Date: 11/11/2022

email: khudgens@paalp.com Telephone: 575-200-5517

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jennifer Nobui Date: 12/09/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

2135 S. Loop 250 W
Midland, Texas 79703
United States
www.GHD.com

Our Ref.: 12565619-NMOCD-1

November 10, 2022

New Mexico Oil Conservation Division
District 2
811 S. First Street
Artesia, New Mexico 88210

Site Closure Report
Snapping Pump Release Site
Plains Pipeline, L.P.
Incident Identification Number: nAPP2128551283
D-12-26S-31E, Eddy County, New Mexico

Dear Sir or Madam:

1. Introduction

GHD Services Inc. (GHD), on behalf of Plains Pipeline, L.P. (Plains), submits this Site Closure Report (Report) to the New Mexico Oil Conservation Division (NMOCD) District 2 Office. This report provides documentation of vertical delineation activities including confirmation soil sampling and analyses, as well as photographic documentation of the liner installation prior to backfilling activities in the previously excavated area at the Plains Snapping Pump Release Site (Site). The Site is located in the Unit Letter D Section 12 of Township 26 South and Range 31 East in Eddy County, New Mexico. The GPS coordinates for this Site are 32.06135° N and 103.737193° W. The release occurred on October 11, 2021, on land managed by the Bureau of Land Management (BLM). Figure 1 depicts the Site location and Figure 2, Confirmation Sampling: Soil Analytical Results Map, depicts the former excavation area in relation to other Site details.

2. Background Information

An initial Form C-141, Release Notification, was submitted to the NMOCD on October 12, 2021. The cause of the release was attributed to a discharge dampener bladder that failed, which resulted in vibration on the associated pump allowing crude oil to be released from a failed blown retainer bolt. The release was reported as 22.5 barrels (bbls) of crude oil with 10 barrels recovered. The release falls under the jurisdiction of the NMOCD District 2 Office in Artesia, New Mexico, who subsequently assigned the release with Incident Number nAPP2128551283 upon receipt of the release notification.

Initial soil delineation and remedial excavation activities were conducted between October 21, 2021, and February 9, 2022. Details of the completed work are documented in the Site Characterization and Remediation Work Plan dated March 24, 2022, and were approved by the NMOCD on April 20, 2022. The completed Form C-141 is attached to the front of this report.

3. Groundwater and Site Characterization

As previously indicated, GHD characterized the Site according to *Table I, Closure Criteria for Soils Impacted by a Release*, from New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 29, Section 12 (NMAC 19.15.29.12).

According to the Site characterization evaluation and NMAC 19.15.29.12.C(4)(a)(i), the Site is located within an area of high Karst potential. No publicly available groundwater data could be located for water wells within one-half mile of the Site. No other receptors (water wells, playas, wetlands, waterways, lakebeds, or ordinance boundaries) were located within the specific boundaries or distances from the Site. Due to the absence of area groundwater data and high karst potential, the Site was initially assessed in accordance with Table 1 Criteria with the assumption that groundwater was less than 50 feet below ground surface (ft bgs). The Site characterization documentation (Karst Potential, FEMA, Points of Diversion, Significant Watercourses, and Wetlands maps) are provided in Attachment A of the previously submitted Site Characterization and Remediation Work Plan, dated March 24, 2022. Following the completion of the soil delineation activities and depth to water boring (discussed in Section 4), the depth to groundwater was determined to be between 51 ft bgs and 100 ft bgs); therefore, the following closure criteria was utilized for final comparison.

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth
High Karst Potential	51 feet to 100 feet

Table 3.1 Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29.12)

Constituent	Limits
Chloride	10,000 milligrams per kilogram (mg/kg)
Total Petroleum Hydrocarbons (TPH) (Gasoline Range Organics [GRO] + Diesel Range Organics [DRO] + Motor Oil/Lube Range Organics [MRO])	2,500 mg/kg
TPH (GRO+DRO)	1,000 mg/kg
Benzene	10 mg/kg
BTEX	50 mg/kg

4. Soil Delineation / Depth to Water Determination Activities

In accordance with the previously submitted work plan, GHD conducted soil delineation activities near confirmation soil sample location BH-17A. Talon LPE, a New Mexico licensed driller, advanced one soil boring through the previously installed PVC conduit to a total depth of approximately 82 ft bgs. Due to the sandy soils at the Site, the first recoverable sample was collected at approximately 55 to 56 ft bgs. Subsequent samples were collected at depths of approximately 60 to 61 ft bgs, 65 to 66 ft bgs, 70 to 71 ft bgs, and 80 to 81 ft bgs. Groundwater was not encountered during drilling activities to the depth of boring termination at 82 ft bgs.

Upon retrieval of sampling equipment, the representative soil samples were placed in laboratory-provided containers, which were immediately labelled, sealed, and stored/transported in a cooler containing ice to a laboratory certified by the National Environmental Laboratory Program (NELAP) for analysis. The samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by the United States Environmental Protection Agency (EPA) Method 8021B, total petroleum hydrocarbons (TPH) by Method 8015B Modified and chloride by EPA Method 300C.

A separate aliquot of each sample was placed in a sealed bag and allowed to equilibrate to ambient temperature. The atmosphere within the sealed bag was subsequently screened for the presence of volatile organic compounds (VOCs) with a photoionization detector (PID).The soil cores were also inspected for

olfactory and visual evidence of impacts such as staining, sheen or hydrocarbon odor. Screening results were recorded on the boring log provided as Attachment A.

Analytical results indicated all samples were below the applicable Table I Closure Criteria. Analytical results are summarized in Table 1. Laboratory Analytical Reports are provided in Attachment B.

Due to mechanical issues with the drilling rig, the total depth of the soil boring terminated at 82 ft bgs. However, the augers were left in place and the soil boring left open to verify the presence of groundwater. After 24 hours, the soil boring was gauged, and groundwater was not detected in the borehole; therefore, the augers were removed, and the soil boring was properly plugged and abandoned.

5. Liner Installation Activities

In accordance with the approved variance, on May 6, 2022, a 20-mil liner was installed at the bottom of the excavation prior to backfilling activities. The liner was approved by the NMOCD to act as a control measure to mitigate the deeper migration of hydrocarbons and provide a barrier to any upward migration of hydrocarbons. Photographic documentation is provided in Attachment C.

6. Incident Identification Number: nAPP2128551283 Closure Request

Site characterization, soil delineation and remediation activities for Incident Identification Number: nAPP2128551283 have been performed in accordance with applicable NMOCD guidance and regulations. Based upon supporting documentation provided in this report, GHD, on behalf of Plains, respectfully requests closure of Incident Identification Number: nAPP2128551283.

If you have any questions or comments concerning this Site Closure Report, please contact the undersigned.

Regards,

GHD

J.T. Murrey
Senior Project Manager

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Project Director

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JTM/jlf/1

Encl.: Table 1 - Summary of Soil Analytical Data
Figure 1 - Site Location Map
Figure 2 - Confirmation Sampling: Soil Analytical Results Map
Attachment A - Soil Boring Log
Attachment B - Laboratory Analytical Reports and Chain-of-Custody Documentation
Attachment C - Photographic Log

Copy to: Karolanne Hudgens, Plains Pipeline, LP
Camille Bryant, Plains Pipeline, LP

Table 1

Summary of Soil Analytical Data
Snapping Pumps
Planis Pipeline, LP
Eddy County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH				Chloride
								GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C35)	Total GRO/DRO/MRO	
			Table I Closure Criteria for Soils <50 feet Depth to Groundwater 19.15.29 NMAC									
			10	---	---	---	50	1,000		---	2,500	10,000
Initial Assessment Samples												
~~AH1-1'~~	~~10/14/2021~~	~~1~~	~~**1.04**~~	~~**14.1**~~	~~**3.15**~~	~~**67.9**~~	~~**86.2**~~	~~**4,610 B**~~	~~**5,900 *+**~~	~~**708 B**~~	~~**11,200**~~	~~**16.1**~~
~~AH1-3'~~	~~10/14/2021~~	~~3~~	~~<0.000389~~	~~<0.000461~~	~~<0.000571~~	~~<0.00102~~	~~<0.00102~~	~~**18.4 J B**~~	~~**19.8 J**~~	~~<15.0~~	~~**38.2 J**~~	~~-~~
~~AH2-2'~~	~~10/14/2021~~	~~2~~	~~<0.000381~~	~~<0.000451~~	~~<0.000559~~	~~<0.00100~~	~~<0.00100~~	~~<15.0~~	~~**242 *+**~~	~~**32.7 J B**~~	~~**275**~~	~~**13**~~
~~AH2-3'~~	~~10/14/2021~~	~~3~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~**15.6 J B**~~	~~**41.1 J**~~	~~<14.9~~	~~**56.7**~~	~~-~~
~~AH3-1'~~	~~10/14/2021~~	~~1~~	~~**0.141**~~	~~**0.00402**~~	~~**0.137**~~	~~**82.0**~~	~~**88.6**~~	~~**3,550 B**~~	~~**6,060 *+**~~	~~**683 B**~~	~~**10,300**~~	~~**13.4**~~
~~AH3-3'~~	~~10/14/2021~~	~~3~~	~~**0.0153**~~	~~**0.0261**~~	~~**0.119**~~	~~**0.913**~~	~~**1.07**~~	~~**1,100 B**~~	~~**1,790**~~	~~**177**~~	~~**3,070**~~	~~-~~
~~AH3-5'~~	~~10/14/2021~~	~~5~~	~~**0.000464 J**~~	~~**0.0183**~~	~~**0.00532**~~	~~**0.0813**~~	~~**0.1**~~	~~**21.6 J**~~	~~**73.6 B**~~	~~<15.0~~	~~**95.2**~~	~~-~~
~~AH4-1'~~	~~10/14/2021~~	~~1~~	~~**0.243**~~	~~**0.0302**~~	~~**0.0161**~~	~~**25.4**~~	~~**25.7**~~	~~**1,480 B**~~	~~**3,560 *+**~~	~~**358 B**~~	~~**5,400**~~	~~**11.4**~~
~~AH4-3'~~	~~10/14/2021~~	~~3~~	~~**0.00273**~~	~~**0.0132**~~	~~**0.0237**~~	~~**0.128**~~	~~**0.167**~~	~~**18.6 J**~~	~~**849 B**~~	~~<14.9~~	~~**868**~~	~~-~~
Bottom Hole Confirmation Samples												
BH-1	12/13/21	4	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	**37.6 J B**	**18.8 J**	<15.0	**56.4**	**37**
BH-2	12/13/21	4	**0.000981 J**	**0.00107 J**	<0.000570	<0.00102	**0.00205 J**	**31.6 J B**	<15.0	<15.0	**31.6 J**	**9.17**
BH-3	12/13/21	4	<0.000383	**0.000864 J**	<0.000563	<0.00101	**0.00180 J**	**33.7 J B**	<15.0	<15.0	**33.7 J**	**226**
BH-4	12/13/21	4	**0.000745 J**	<0.000454	<0.000563	**0.00178 J**	**0.00253 J**	**32.4 J B**	<15.0	<15.0	**32.4 J**	**9.22**
BH-5	12/13/21	4	<0.000386	**0.00200**	<0.000566	<0.00101	**0.00270 J**	**45.4 J B**	<15.0	<15.0	**45.4 J**	**6.25**
BH-6	12/13/21	4	<0.000387	<0.000458	<0.000567	<0.00101	<0.00101	**29.4 J B**	<15.0	<15.0	**29.4 J**	**5.41**
BH-7	12/13/21	4	<0.000385	<0.000456	<0.000565	<0.00101	<0.00101	**39.6 J B**	<15.0	<15.0	**39.6 J**	**71.1**
BH-8	12/13/21	3	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	**36.5 J B**	**18.7 J**	<15.0	**55.2**	**6.02**
BH-9	12/13/21	3	**0.000399 J**	**0.00107 J**	<0.000570	**0.00217 J**	**0.00364 J**	**23.7 J B**	<15.0	<15.0	**23.7 J**	**15.6**
BH-10	12/13/21	3	**0.00110 J**	<0.000453	<0.000562	<0.00100	**0.00161 J**	**34.0 J B**	<15.0	<15.0	**34.0 J**	**7.98**
BH-11	12/13/21	3	<0.000387	<0.000458	<0.000567	<0.00101	<0.00101	**32.1 J B**	<15.0	<15.0	**32.1 J**	**8.69**
BH-12	12/13/21	3	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	**32.6 J B**	<14.9	<14.9	**32.6 J**	**5.76**
BH-13	12/13/21	3	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	**47.9 J B**	<15.0	<15.0	**47.9 J**	**4.92 J**
~~BH-14~~	~~1/5/22~~	~~12~~	~~<0.000383~~	~~**0.000469 J**~~	~~<0.000562~~	~~<0.00100~~	~~<0.00100~~	~~**22.3 J**~~	~~**85.9 *1**~~	~~<15.0~~	~~**108**~~	~~**12.9**~~
BH-14A	1/27/22	19	<0.000384	**<0.000455**	<0.000564	**0.00109 J**	**0.000109 J**	<15.0	<15.0	<15.0	<15.0	**44.1**
~~BH-15~~	~~1/5/22~~	~~12~~	~~**0.000625 J**~~	~~**0.000623 J**~~	~~<0.000567~~	~~<0.00101~~	~~**0.00217 J**~~	~~<15.0~~	~~**32.3 J*1**~~	~~<15.0~~	~~**32.3 J**~~	~~**7.38**~~
BH-15A	1/27/22	19	<0.000389	**0.000520 J**	**.000641 J**	<0.00102	**0.00186 J**	<15.0	**125 B**	<15.0	**125**	**9.2**
~~BH-16~~	~~1/5/22~~	~~12~~	~~**0.00153 J**~~	~~**0.0487**~~	~~**0.0889**~~	~~**0.57**~~	~~**0.709**~~	~~**36.2 J**~~	~~**570 *1**~~	~~**49.6 J**~~	~~**656**~~	~~**7.92**~~
BH-16A	1/27/22	19	<0.000385	**0.0129**	**0.0135**	**0.508**	**0.534**	**74.6**	**432 B**	**36.8 J**	**543**	**17.4**
~~BH-17~~	~~1/5/22~~	~~12~~	~~**0.00211**~~	~~**0.0357**~~	~~**0.0641**~~	~~**0.504**~~	~~**0.606**~~	~~**45.2 J**~~	~~**439 *1**~~	~~**42.7 J**~~	~~**527**~~	~~**5.96**~~
BH-17A	1/27/22	19	**2.10**	**5.81**	**2.88**	**45.0**	**55.8**	**2,970**	**4,770 B**	**435**	**8,180**	**15.8**
~~BH-18~~	~~1/5/22~~	~~12~~	~~**0.00143 J**~~	~~**0.0814**~~	~~**0.0862**~~	~~**0.713**~~	~~**0.882**~~	~~**59**~~	~~**1,000 *1**~~	~~**80**~~	~~**1,140**~~	~~**31.1**~~
BH-18A	1/27/22	19	<0.000389	<0.000461	<0.000571	**0.00126 J**	**0.00126 J**	<15.0	<15.0	<15.0	<15.0	**42.7**

Table 1

Summary of Soil Analytical Data
Snapping Pumps
Planis Pipeline, LP
Eddy County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH				Chloride
								GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C35)	Total GRO/DRO/MRO	
			Table I Closure Criteria for Soils <50 feet Depth to Groundwater 19.15.29 NMAC									
			10	---	---	---	50	1,000		---	2,500	10,000
~~BH-19~~	~~1/5/22~~	~~12~~	~~<0.000381~~	~~**0.00342**~~	~~**0.000679**~~	~~**0.01**~~	~~**0.0141**~~	~~**21.0 J**~~	~~<15.0~~	~~<15.0~~	~~**21.0 J**~~	~~**32.4**~~
BH-19A	1/27/22	19	<0.000383	<0.000454	<0.000536	<0.00101	<0.00101	<15.0	<15.0	<15.0	<15.0	**2.51 J**
BH-20	1/5/22	10	<0.000384	**0.000575 J**	<0.000564	**0.00280 J**	**0.00337 J**	<15.0	<15.0	<15.0	<15.0	**7.54 F1**
BH-21	1/5/22	10	<0.000389	**0.000847 J**	**0.000629 J**	<0.00102	**0.00148 J**	**30.7 J**	<15.0	<15.0	**30.7 J**	**8.11**
BH-22	1/5/22	10	<0.000383	**0.00120 J**	<0.000562	**0.00171 J**	**0.00291 J**	**15.4 J**	<15.0	<15.0	**15.4 J**	**9.22**
BH-23	1/5/22	10	**0.000403 J**	**0.000580 J**	**0.000591 J**	<0.00102	**0.00157 J**	<15.0	<15.0	<15.0	<15.0	**47.9**
BH-24	1/5/22	10	**0.00359**	**0.00245**	**0.000691 J**	<0.00101	**0.00673**	<15.0	<15.0	<15.0	<15.0	**13.5**
BH-25	1/5/22	10	<0.000381	<0.000451	<0.000559	<0.00100	<0.00100	<15.0	<15.0	<15.0	<15.0	**59.8**
BH-26	1/5/22	10	<0.000382	<0.000452	<0.000561	<0.00100	<0.00100	<15.0	<15.0	<15.0	<15.0	**23.2**
BH-27	1/17/22	3	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	**21.3 J**	<15.0 *1	<15.0	**21.3 J**	**5.88**
BH-28	1/17/22	3	**0.00474**	**0.00346**	**0.000648 J**	<0.00102	**0.00885**	**23.7 J**	<15.0 *1	<15.0	**23.7 J**	**3.37 J**
BH-29	1/17/22	14	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	**16.1 J**	<15.0 *1	<15.0	**16.1 J**	**6.71**
BH-30	1/17/22	14	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	**22.1 J**	<15.0 *1	<15.0	**22.1 J**	**25.2**
BH-31	1/17/22	14	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	**23.2 J**	<15.0 *1	<15.0	**23.2 J**	**19.6**
BH-32	1/17/22	14	**0.000824 J**	**0.000935 J**	<0.000561	<0.00100	**0.00271 J**	**15.9 J**	<15.0 *1	<15.0	**15.9 J**	**9.66**
BH-33	1/17/22	14	<0.000384	**0.00182 J**	<0.000564	<0.00101	**0.00182 J**	**23.1 J**	<15.0 *1	<15.0	**23.1 J**	**17.0**
Side Wall Confirmation Samples												
SW-1	12/13/21	-	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	**36.7 J B**	<15.0	<15.0	**36.7 J**	**7.69**
SW-2	12/13/21	-	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	**29.6 J B**	**17.9 J**	<15.0	**47.5 J**	**6.17**
SW-3	12/13/21	-	**0.00112 J**	<0.000455	<0.000564	**0.00123 J**	**0.00235 J**	**29.9 J B**	<15.0	<15.0	**29.9 J**	**6.63**
SW-4	12/13/21	-	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	**29.1 J B**	<15.0	<15.0	**29.1 J**	**6.04**
SW-5	12/13/21	-	<0.000385	**0.00137 J**	<0.000565	<0.00101	**0.00137 J**	**34.7 J B**	<15.0	<15.0	**34.7 J**	<0.857
SW-6	12/13/21	-	<0.000388	<0.000460	<0.000570	<0.00102	<0.00102	**38.6 J B**	**43.6 J**	<15.0	**82.2**	**4.38 J**
~~SW-7~~	~~12/13/21~~	~~-~~	~~<0.000389~~	~~<0.000461~~	~~<0.000571~~	~~<0.00102~~	~~<0.00102~~	~~**39.1 J B**~~	~~**202**~~	~~<15.0~~	~~**241**~~	~~**12.5**~~
SW-7	1/17/22	-	<0.000381	<0.000451	<0.000559	<0.00100	<0.00100	**22.0 J F1**	<15.0 F1 *1	<15.0	**22.0 J**	**9.26 F1**
~~SW-8~~	~~12/13/21~~	~~-~~	~~<0.000381~~	~~**0.00135 J**~~	~~**0.000727 J**~~	~~**0.00357 J**~~	~~**0.00565**~~	~~**22.3 J**~~	~~**95.5**~~	~~<15.0~~	~~**118**~~	~~**6.19**~~
SW-8	1/17/22	-	<0.000388	<0.000460	<0.000570	<0.00102	<0.00102	**19.7 J**	<15.0 *1	<15.0	**19.7 J**	**8.5**
SW-9	1/4/22	-	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	**19.0 J*1**	**60.9 *1**	<15.0	**79.9**	**16.7 F1**
SW-10	1/4/22	-	<0.000385	<0.000456	<0.000565	<0.00101	<0.00101	<15.0	<15.0	<15.0	<15.0	**30.9**
SW-11	1/4/22	-	<0.000385	<0.000456	<0.000565	**0.00275 J**	**0.00275 J**	<15.0	<15.0	<15.0	<15.0	**2.85 J**
SW-12	1/4/22	-	<0.000381	**0.00121 J**	<0.000559	**0.00167 J**	**0.00288 J**	<15.0	<15.0	<15.0	<15.0	**3.94 J**
SW-13	1/4/22	-	<0.000388	<0.000460	<0.000570	<0.00102	<0.00102	<15.0	<15.0	<15.0	<15.0	**3.91 J**
SW-14	1/4/22	-	**0.00128 J**	<0.000455	**0.000775 J**	**0.00123 J**	**0.00329 J**	<15.0	<15.0	<15.0	<15.0	**3.46 J**
SW-15	1/4/22	-	**0.00112 J**	**0.000924 J**	<0.000567	<0.00101	**0.00204 J**	<15.0	<15.0	<15.0	<15.0	**18.9**

Table 1

Summary of Soil Analytical Data
Snapping Pumps
Planis Pipeline, LP
Eddy County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH				Chloride
								GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C35)	Total GRO/DRO/MRO	
			Table I Closure Criteria for Soils <50 feet Depth to Groundwater 19.15.29 NMAC									
			10	---	---	---	50	1,000		---	2,500	10,000
SW-16	1/4/22	-	<0.000386	**0.00116 J**	<0.000566	**0.00283 J**	**0.00399 J**	<15.0	<15.0	<15.0	<15.0	**27.5**
SW-17	1/4/22	-	<0.000387	<0.000458	<0.000567	<0.00101	<0.00101	<15.0	<15.0	<15.0	<15.0	**46.5**
SW-18	1/4/22	-	<0.000385	<0.000456	<0.000565	<0.00101	<0.00101	<15.0	**77.2 *1**	<15.0	**77.2**	**11.7**
SW-19	1/4/22	-	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	<15.0	**59.3 *1**	<15.0	**59.3**	**15.3**
SW-20	1/4/22	-	<0.000389	<0.000461	<0.000571	<0.00102	<0.00102	<15.0	<15.0	<15.0	<15.0	**6.46**
SW-21	1/4/22	-	**0.00103 J**	**0.00178 J**	<0.000562	<0.00100	**0.00379 J**	<15.0	<15.0	<15.0	<15.0	**14.5**
SW-22	1/4/22	-	<0.000383	<0.000453	<0.000562	**0.00104 J**	**0.00104 J**	<15.0	**66.1 *1**	<15.0	**66.1**	**9.93**
SW-23	1/4/22	-	<0.000387	**0.00105 J**	<0.000568	**0.00162**	**0.00267**	<15.0	<15.0	<15.0	<15.0	**19.7**
SW-24	1/4/22	-	**0.00136 J**	**0.00103 J**	<0.000566	<0.00101	**0.00291 J**	<15.0	<15.0	<15.0	<15.0	**11.4**
SW-25	1/4/22	-	<0.000381	<0.000451	<0.000559	<0.00100	<0.00100	<15.0	<15.0	<15.0	<15.0	**6.81**
SW-26	1/4/22	-	**0.00117 J**	<0.000452	<0.000561	**0.00178 J**	**0.00295 J**	<15.0	<15.0	<15.0	<15.0	**23.1**
SW-26	1/17/22	-	<0.000383 F1	<0.000454 F1	<0.000563 F2 F1	<0.00101 F1	<0.00101	**23.3 J**	<15.0 *1	<15.0	**23.3 J**	**7.69**
SW-27	1/17/22	-	<0.000381	<0.000451	<0.000559	<0.00100	<0.00100	**18.7 J**	<15.0 *1	<15.0	**18.7 J**	**7.99**
SW-28 14'-19'	1/27/22	-	<0.000381	<0.000451	<0.000559	<0.00100	<0.00100	<15.0	**30.0 J**	<15.0	**30.0 J**	**13.1**
SW-29 14'-19'	1/27/22	-	<0.000388	**0.00657**	**0.00102 J**	**0.0142**	**0.0218**	<15.0	<15.0	<15.0	<15.0	**53.2**
SW-30 14'-19'	1/27/22	-	<0.000383	**0.00324**	<0.000562	**0.00539**	**0.00863**	<15.0	<15.0	<15.0	<15.0	**13.4**
SW-31 14'-19'	1/27/22	-	<0.000385	<0.000456	<0.000565	**0.00277 J**	**0.00277 J**	<15.0	<15.0	<15.0	<15.0	**13.6**
Ramp Confirmation Samples												
~~Ramp-1~~	~~1/4/22~~	~~-~~	~~<0.000383~~	~~**0.00119 J**~~	~~<0.000563~~	~~**0.00146 J**~~	~~**0.00265 J**~~	~~<15.0~~	~~**180 *1**~~	~~<15.0~~	~~**180**~~	~~**4.65 J**~~
~~Ramp-2~~	~~1/4/22~~	~~-~~	~~**0.000513 J**~~	~~**0.000989 J**~~	~~<0.000568~~	~~**0.00140 J**~~	~~**0.00290 J**~~	~~<14.9~~	~~**170 *1**~~	~~<14.9~~	~~**170**~~	~~**3.55 J**~~
~~Ramp-3~~	~~1/4/22~~	~~-~~	~~<0.000389~~	~~**0.00131 J**~~	~~<0.000571~~	~~<0.00102~~	~~**0.00131 J**~~	~~<15.0~~	~~166~~	~~<15.0~~	~~**166**~~	~~**11.1 F1**~~
~~Ramp-4~~	~~1/4/22~~	~~-~~	~~<0.000383~~	~~**0.000616 J**~~	~~<0.000562~~	~~<0.00100~~	~~<0.00100~~	~~<15.0~~	~~**129**~~	~~<15.0~~	~~**129**~~	~~**7.85**~~
~~Ramp-5~~	~~1/4/22~~	~~-~~	~~<0.000383~~	~~**0.000599 J**~~	~~<0.000563~~	~~<0.00101~~	~~<0.00101~~	~~<15.0~~	~~**137**~~	~~<15.0~~	~~**137**~~	~~**12.4**~~
~~Ramp-6~~	~~1/4/22~~	~~-~~	~~<0.000388~~	~~<0.000460~~	~~<0.000570~~	~~<0.00102~~	~~<0.00102~~	~~<15.0~~	~~**76.7**~~	~~<15.0~~	~~**76.7**~~	~~**8.6**~~
Test Pit Samples												
TP1-26	2/9/22	26	**0.0769 J**	**5.46**	**2.52**	**30.7**	**38.7569**	**1,480**	**2,350 B**	<15.0 U	**3,830**	**64.8**
Soil Pile Samples												
SP-1	2/9/22	-	**0.00578**	**0.125**	**0.0245**	**0.405**	**0.559**	**27.0 J**	**1,680 B**	<15.0 U	**1,707**	**12.7**
SP-2	2/9/22	-	**0.000476 J**	**0.0209**	**0.00195 J**	**0.0506**	**0.0736**	**29.4 J**	**82.2 B**	<15.0 U	**112**	**17.9**
SP-3	2/9/22	-	<0.000381 U	0.00623	**0.000995 J**	**0.0162**	**0.0233**	**17.6 J**	<15.0 U	<15.0 U	**17.6 J**	**28.9**

Table 1

Summary of Soil Analytical Data
Snapping Pumps
Planis Pipeline, LP
Eddy County, New Mexico

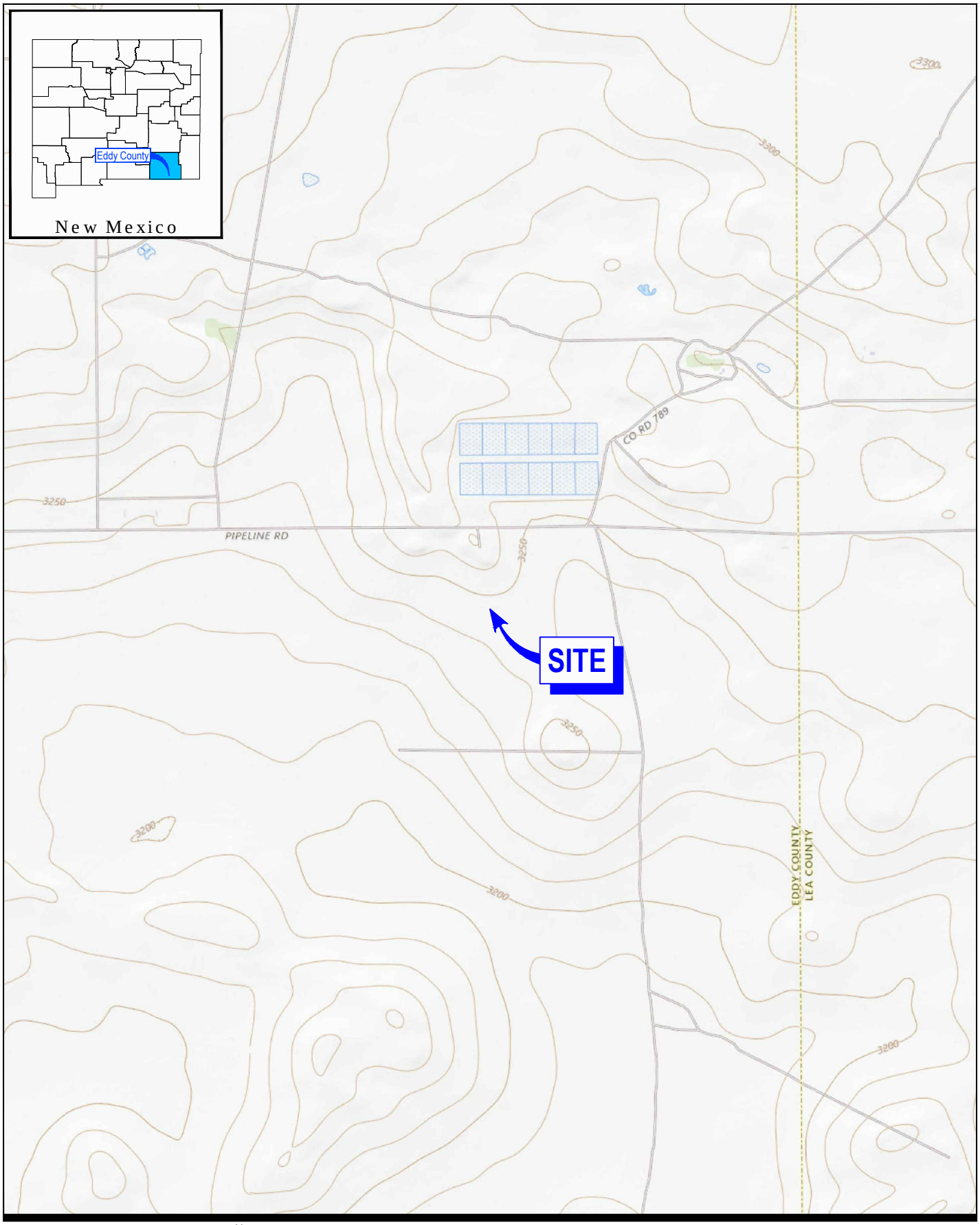
Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH				Chloride
								GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C35)	Total GRO/DRO/MRO	
			Table I Closure Criteria for Soils <50 feet Depth to Groundwater 19.15.29 NMAC									
			10	---	---	---	50	1,000		---	2,500	10,000
Delineation Soil Boring												
S-12565619-090-722-HR01	9/7/22	55-56	<0.00200	**0.00108 J**	**0.00161 J**	**0.00330 J**	**0.00599**	<49.9	**111**	<49.9	**111**	**44.4**
S-12565619-090722-HR-02	9/7/22	60-61	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<49.9	<49.9	<49.9	<49.9	**26.3**
S-12565619-090722-HR-03	9/7/22	65-66	**0.000462 J**	**0.000485 J**	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	**25.4**
S-12565619-090722-HR-04	9/7/22	70-71	<0.00201	**0.000497 J**	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	**17.4**
S-12565619-090722-HR-05	9/7/22	80-81	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.8	<49.8	<49.8	<49.8	**9.34**

Notes:
1. Values reported in mg/kg
2. < = Value Less than Reporting Limit (RL)
3. Bold Indicates Analyte Detected
4 BTEX analyses by EPA Method SW 8021B.
5. TPH analyses by EPA Method SW 8015 Mod.
6. GRO/DRO/MRO = Gasoline/Diesel/Motor Oil
7. Yellow shaded cells indicate analytical samples that exceed the NMOC 19.15.29.12 Table 1 Closure Criteria for the Site.
8. J - the target analytes was positively identified below the quantitation limit and above the detection/reporting limit.
9. - = not defined
10. B - Compound was found in the blank and sample.
11. *+ indicates LCS and/or LCSD is outside acceptance limits, high biased.
12. *1 - LCS/LCSD RPD exceeds control limits.
13. F1 - MS and/or MSD recovery exceeds control limits.

Yellow shaded cells indicate analytical samples that exceed the NMAC 19.15.29.12 Table I for depth to water greater than 100 ft

Peach shaded cells indicate analytical samples that exceed the NMAC 19.15.29.13 standards for restoration, reclamation, and re-vegetation.

~~B-BH-2~~ Sample Point Excavated



0 1000 2000 ft

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

N

GHD

PLAINS
EDDY COUNTY, NEW MEXICO
SNAPPING PUMP RELEASE

Project No. **12565619**
Date **February 2022**

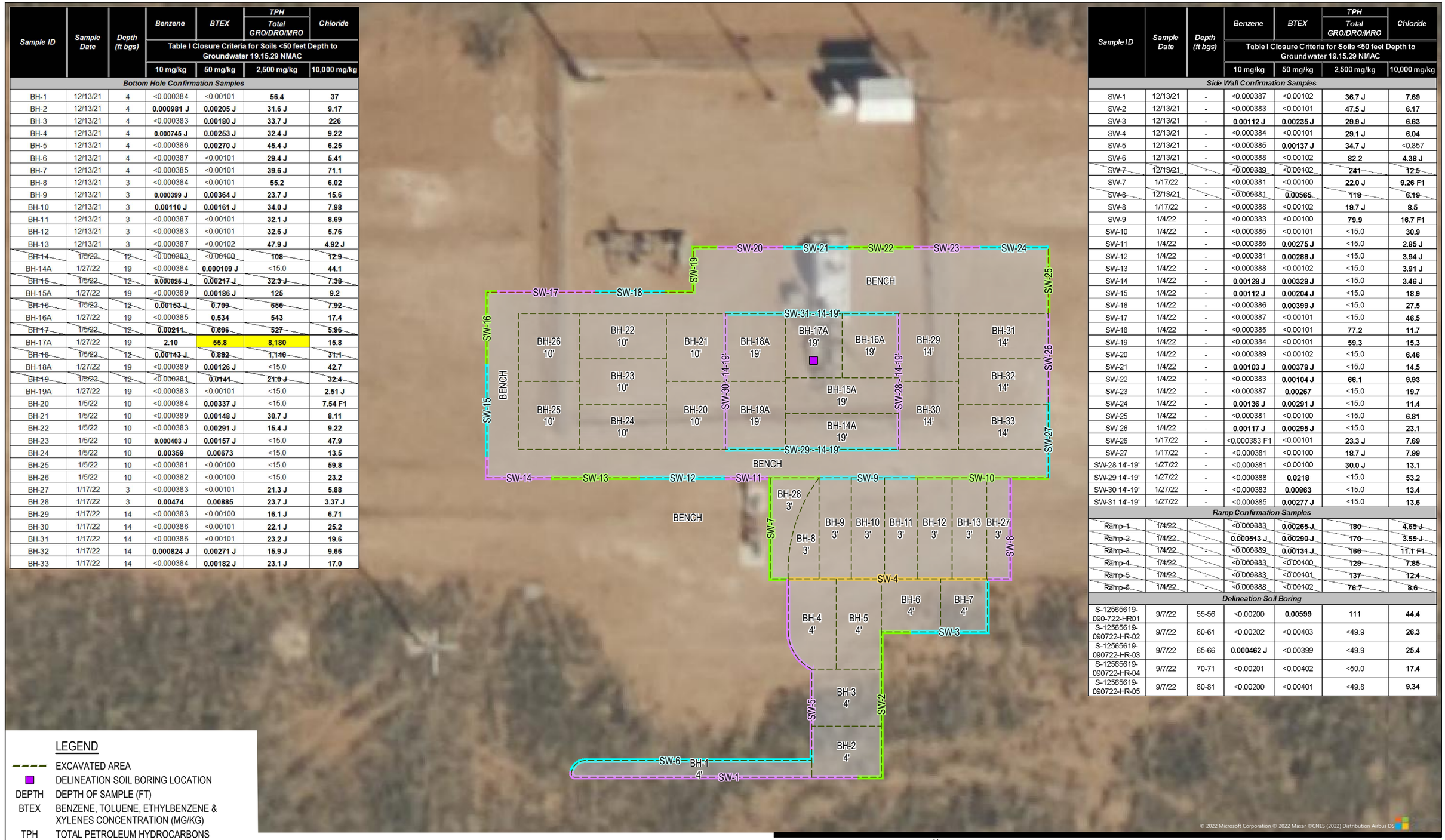
SITE LOCATION MAP

FIGURE 1

Filename: \\ghdnet\ghd\US\Midland\Projects\562\12565619\Digital_Design\ACAD\Figures\RPT001\12565619-GHD-0000-RPT-EN-0101_DL-001.dwg

Data Source: USGS 7.5 Minute Quad "Paduca Breaks West and Phantom Banks, New Mexico"
Lat/Long: 32.061469° North, 103.738161° West

Sample ID	Sample Date	Depth (ft bgs)	Benzene	BTEX	TPH Total GRO/DRO/MRO	Chloride
			Table I Closure Criteria for Soils <50 feet Depth to Groundwater 19.15.29 NMAC			
			10 mg/kg	50 mg/kg	2,500 mg/kg	10,000 mg/kg
Bottom Hole Confirmation Samples						
BH-1	12/13/21	4	<0.000384	<0.00101	56.4	37
BH-2	12/13/21	4	0.000981 J	0.00205 J	31.6 J	9.17
BH-3	12/13/21	4	<0.000383	0.00180 J	33.7 J	226
BH-4	12/13/21	4	0.000745 J	0.00253 J	32.4 J	9.22
BH-5	12/13/21	4	<0.000386	0.00270 J	45.4 J	6.25
BH-6	12/13/21	4	<0.000387	<0.00101	29.4 J	5.41
BH-7	12/13/21	4	<0.000385	<0.00101	39.6 J	71.1
BH-8	12/13/21	3	<0.000384	<0.00101	55.2	6.02
BH-9	12/13/21	3	0.000399 J	0.00364 J	23.7 J	15.6
BH-10	12/13/21	3	0.00110 J	0.00161 J	34.0 J	7.98
BH-11	12/13/21	3	<0.000387	<0.00101	32.1 J	8.69
BH-12	12/13/21	3	<0.000383	<0.00101	32.6 J	5.76
BH-13	12/13/21	3	<0.000387	<0.00102	47.9 J	4.92 J
~~BH-14~~	~~1/5/22~~	~~12~~	~~<0.000383~~	~~<0.00100~~	~~108~~	~~12.9~~
BH-14A	1/27/22	19	<0.000384	0.000109 J	<15.0	44.1
~~BH-15~~	~~1/5/22~~	~~12~~	~~0.000626 J~~	~~0.00217 J~~	~~32.3 J~~	~~7.38~~
BH-15A	1/27/22	19	<0.000389	0.00186 J	125	9.2
~~BH-16~~	~~1/5/22~~	~~12~~	~~0.00153 J~~	~~0.709~~	~~656~~	~~7.92~~
BH-16A	1/27/22	19	<0.000385	0.534	543	17.4
~~BH-17~~	~~1/5/22~~	~~12~~	~~0.00211~~	~~0.606~~	~~527~~	~~5.96~~
BH-17A	1/27/22	19	2.10	55.8	8,180	15.8
~~BH-18~~	~~1/5/22~~	~~12~~	~~0.00143 J~~	~~0.882~~	~~1,140~~	~~31.1~~
BH-18A	1/27/22	19	<0.000389	0.00126 J	<15.0	42.7
~~BH-19~~	~~1/5/22~~	~~12~~	~~<0.000381~~	~~0.0141~~	~~21.0 J~~	~~32.4~~
BH-19A	1/27/22	19	<0.000383	<0.00101	<15.0	2.51 J
BH-20	1/5/22	10	<0.000384	0.00337 J	<15.0	7.54 F1
BH-21	1/5/22	10	<0.000389	0.00148 J	30.7 J	8.11
BH-22	1/5/22	10	<0.000383	0.00291 J	15.4 J	9.22
BH-23	1/5/22	10	0.000403 J	0.00157 J	<15.0	47.9
BH-24	1/5/22	10	0.00359	0.00673	<15.0	13.5
BH-25	1/5/22	10	<0.000381	<0.00100	<15.0	59.8
BH-26	1/5/22	10	<0.000382	<0.00100	<15.0	23.2
BH-27	1/17/22	3	<0.000383	<0.00101	21.3 J	5.88
BH-28	1/17/22	3	0.00474	0.00885	23.7 J	3.37 J
BH-29	1/17/22	14	<0.000383	<0.00100	16.1 J	6.71
BH-30	1/17/22	14	<0.000386	<0.00101	22.1 J	25.2
BH-31	1/17/22	14	<0.000386	<0.00101	23.2 J	19.6
BH-32	1/17/22	14	0.000824 J	0.00271 J	15.9 J	9.66
BH-33	1/17/22	14	<0.000384	0.00182 J	23.1 J	17.0



Sample ID	Sample Date	Depth (ft bgs)	Benzene	BTEX	TPH Total GRO/DRO/MRO	Chloride
			Table I Closure Criteria for Soils <50 feet Depth to Groundwater 19.15.29 NMAC			
			10 mg/kg	50 mg/kg	2,500 mg/kg	10,000 mg/kg
Side Wall Confirmation Samples						
SW-1	12/13/21	-	<0.000387	<0.00102	36.7 J	7.69
SW-2	12/13/21	-	<0.000383	<0.00101	47.5 J	6.17
SW-3	12/13/21	-	0.00112 J	0.00235 J	29.9 J	6.63
SW-4	12/13/21	-	<0.000384	<0.00101	29.1 J	6.04
SW-5	12/13/21	-	<0.000385	0.00137 J	34.7 J	<0.857
SW-6	12/13/21	-	<0.000388	<0.00102	82.2	4.38 J
~~SW-7~~	~~12/13/21~~	~~-~~	~~<0.000389~~	~~<0.00102~~	~~241~~	~~12.5~~
SW-7	1/17/22	-	<0.000381	<0.00100	22.0 J	9.26 F1
~~SW-8~~	~~12/13/21~~	~~-~~	~~<0.000381~~	~~0.00565~~	~~118~~	~~6.19~~
SW-8	1/17/22	-	<0.000388	<0.00102	19.7 J	8.5
SW-9	1/4/22	-	<0.000383	<0.00100	79.9	16.7 F1
SW-10	1/4/22	-	<0.000385	<0.00101	<15.0	30.9
SW-11	1/4/22	-	<0.000385	0.00275 J	<15.0	2.85 J
SW-12	1/4/22	-	<0.000381	0.00288 J	<15.0	3.94 J
SW-13	1/4/22	-	<0.000388	<0.00102	<15.0	3.91 J
SW-14	1/4/22	-	0.00128 J	0.00329 J	<15.0	3.46 J
SW-15	1/4/22	-	0.00112 J	0.00204 J	<15.0	18.9
SW-16	1/4/22	-	<0.000386	0.00399 J	<15.0	27.5
SW-17	1/4/22	-	<0.000387	<0.00101	<15.0	46.5
SW-18	1/4/22	-	<0.000385	<0.00101	77.2	11.7
SW-19	1/4/22	-	<0.000384	<0.00101	59.3	15.3
SW-20	1/4/22	-	<0.000389	<0.00102	<15.0	6.46
SW-21	1/4/22	-	0.00103 J	0.00379 J	<15.0	14.5
SW-22	1/4/22	-	<0.000383	0.00104 J	66.1	9.93
SW-23	1/4/22	-	<0.000387	0.00267	<15.0	19.7
SW-24	1/4/22	-	0.00136 J	0.00291 J	<15.0	11.4
SW-25	1/4/22	-	<0.000381	<0.00100	<15.0	6.81
SW-26	1/4/22	-	0.00117 J	0.00295 J	<15.0	23.1
SW-26	1/17/22	-	<0.000383 F1	<0.00101	23.3 J	7.69
SW-27	1/17/22	-	<0.000381	<0.00100	18.7 J	7.99
SW-28 14'-19'	1/27/22	-	<0.000381	<0.00100	30.0 J	13.1
SW-29 14'-19'	1/27/22	-	<0.000388	0.0218	<15.0	53.2
SW-30 14'-19'	1/27/22	-	<0.000383	0.00863	<15.0	13.4
SW-31 14'-19'	1/27/22	-	<0.000385	0.00277 J	<15.0	13.6
Ramp Confirmation Samples						
~~Ramp-1~~	~~1/4/22~~	~~-~~	~~<0.000383~~	~~0.00265 J~~	~~180~~	~~4.65 J~~
~~Ramp-2~~	~~1/4/22~~	~~-~~	~~0.000513 J~~	~~0.00290 J~~	~~170~~	~~3.55 J~~
~~Ramp-3~~	~~1/4/22~~	~~-~~	~~<0.000389~~	~~0.00131 J~~	~~166~~	~~11.1 F1~~
~~Ramp-4~~	~~1/4/22~~	~~-~~	~~<0.000383~~	~~<0.00100~~	~~129~~	~~7.85~~
~~Ramp-5~~	~~1/4/22~~	~~-~~	~~<0.000383~~	~~<0.00101~~	~~137~~	~~12.4~~
~~Ramp-6~~	~~1/4/22~~	~~-~~	~~<0.000388~~	~~<0.00102~~	~~76.7~~	~~8.6~~
Delineation Soil Boring						
S-12565619-090-722-HR01	9/7/22	55-56	<0.00200	0.00599	111	44.4
S-12565619-090722-HR-02	9/7/22	60-61	<0.00202	<0.00403	<49.9	26.3
S-12565619-090722-HR-03	9/7/22	65-66	0.000462 J	<0.00399	<49.9	25.4
S-12565619-090722-HR-04	9/7/22	70-71	<0.00201	<0.00402	<50.0	17.4
S-12565619-090722-HR-05	9/7/22	80-81	<0.00200	<0.00401	<49.8	9.34

LEGEND

- EXCAVATED AREA
- DELINEATION SOIL BORING LOCATION
- DEPTH — DEPTH OF SAMPLE (FT)
- BTEX — BENZENE, TOLUENE, ETHYLBENZENE & XYLENES CONCENTRATION (MG/KG)
- TPH — TOTAL PETROLEUM HYDROCARBONS CONCENTRATION (MG/KG)
- INDICATES SIDE WALL COMPOSITE SAMPLE
- INDICATES SIDE WALL COMPOSITE SAMPLE
- INDICATES SIDE WALL COMPOSITE SAMPLE
- INDICATES SIDE WALL COMPOSITE SAMPLE
- ~~BH-14~~ — SAMPLE POINT EXCAVATED

NOTES:

1. RESULTS IN MILLIGRAMS PER KILOGRAM (MG/KG).
2. SEE TABLE 1 FOR FULL ANALYTICAL RESULTS/DETAILS.
3. YELLOW SHADED CELLS INDICATE EXCEEDANCE.

0 10 20 ft

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

N

GHD

PLAINS
EDDY COUNTY, NEW MEXICO
SNAPPING PUMP RELEASE

CONFIRMATION SAMPLING: SOIL ANALYTICAL RESULTS MAP

Project No. 12565619
Date November 2022

FIGURE 2

Filename: \\ghdnetghdfs\US\Midland\Projects\562\12565619\Digital_Design\ACAD\Figures\RPT001\12565619-GHD-0000-RPT-EN-0101_DL-001.dwg

Data Source: Image © 2021 Google - Imagery Date: December 21, 2019
Lat/Long: 32.061469° North, 103.738161° West

Attachment A

Soil Boring Log

STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Snapping Pump Site
PROJECT NUMBER: 12565619
CLIENT: Plains
LOCATION: New Mexico

HOLE DESIGNATION: BH-01-22
DATE COMPLETED: 7 September 2022
DRILLING METHOD: Hollow Stem Auger
FIELD PERSONNEL: H. Ruiz Salazar

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value	SAMPLE PID (ppm)
0	SP- SAND, loose, low plasticity, red, dry, no odor						
5							
10							
15							
20	- A protective casing of 12" PVC was used from 0 to 17 ft to keep the wall of the borehole from collapsing at 17.00ft BGS						
25							
30							
35							
40							
45	- moist at 45.00ft BGS						
50							
55	- mild hydrocarbon odor at 55.00ft BGS		HR-01		83.3		28
60	- mild hydrocarbon odor at 60.00ft BGS		HR-02		66.7		8.1
65	- mild hydrocarbon odor at 65.00ft BGS		HR-03		83.3		2.5
70	- mild hydrocarbon odor at 70.00ft BGS		HR-04		91.7		6.1
75							
80	- mild hydrocarbon odor at 80.00ft BGS	80.00	HR-05		95.8		4.7
	END OF BOREHOLE @ 80.00ft BGS						
85							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

File: \\GHDNET\GHD\US\MIDLAND\PROJECTS\562\12565619\TECH\GINT\DATABASE\12565619-WA-102022.GPJ Library File: GHD_ENVIRO_V06.GLB Report: OVERBURDEN LOG Date: 19/10/22

Attachment B

Laboratory Analytical Reports and Chain-of-Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2904-1
Client Project/Site: Snapping Pump
Revision: 1

For:
GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: James (J.T.) Murrey

Authorized for release by:
9/21/2022 3:14:14 PM

Debbie Simmons, Project Manager
(832)986-6768
Debbie.Simmons@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: GHD Services Inc.
Project/Site: Snapping Pump

Laboratory Job ID: 890-2904-1

Table of Contents

Definitions/Glossary

Client: GHD Services Inc. Job ID: 890-2904-1
Project/Site: Snapping Pump

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Job ID: 890-2904-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2904-1

Receipt
The samples were received on 9/8/2022 1:55 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

Revision
The report being provided is a revision of the original report sent on 9/21/2022. The report (revision 1) is being revised due to:please have the report corrected for **S-12565619-090-722-HR01 as it shows a depth of 555 in the report and per COC it is 55'**

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Client Sample ID: S-12565619-090-722-HR01

Lab Sample ID: 890-2904-1
Matrix: Solid
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55
Sample Depth: 55

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000384	mg/Kg		09/16/22 16:06	09/20/22 12:51	1
Toluene	**0.00108**	**J**	0.00200	0.000455	mg/Kg		09/16/22 16:06	09/20/22 12:51	1
Ethylbenzene	**0.00161**	**J**	0.00200	0.000564	mg/Kg		09/16/22 16:06	09/20/22 12:51	1
m-Xylene & p-Xylene	**0.00227**	**J**	0.00399	0.00101	mg/Kg		09/16/22 16:06	09/20/22 12:51	1
o-Xylene	**0.00103**	**J**	0.00200	0.000343	mg/Kg		09/16/22 16:06	09/20/22 12:51	1
Xylenes, Total	**0.00330**	**J**	0.00399	0.00101	mg/Kg		09/16/22 16:06	09/20/22 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*09/16/22 16:06*	*09/20/22 12:51*	*1*
1,4-Difluorobenzene (Surr)	*127*		*70 - 130*	*09/16/22 16:06*	*09/20/22 12:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00599**		0.00399	0.00101	mg/Kg			09/20/22 14:56	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**111**		49.9	15.0	mg/Kg			09/12/22 15:38	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	15.0	mg/Kg		09/12/22 08:43	09/12/22 12:05	1
Diesel Range Organics (Over C10-C28)	**111**		49.9	15.0	mg/Kg		09/12/22 08:43	09/12/22 12:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0	mg/Kg		09/12/22 08:43	09/12/22 12:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*09/12/22 08:43*	*09/12/22 12:05*	*1*
o-Terphenyl	*92*		*70 - 130*	*09/12/22 08:43*	*09/12/22 12:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**44.4**		4.97	0.853	mg/Kg			09/13/22 16:29	1

Client Sample ID: S-12565619-090-722-HR02

Lab Sample ID: 890-2904-2
Matrix: Solid
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55
Sample Depth: 60

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	0.000388	mg/Kg		09/16/22 16:06	09/20/22 13:12	1
Toluene	<0.00202	U	0.00202	0.000460	mg/Kg		09/16/22 16:06	09/20/22 13:12	1
Ethylbenzene	<0.00202	U	0.00202	0.000570	mg/Kg		09/16/22 16:06	09/20/22 13:12	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	0.00102	mg/Kg		09/16/22 16:06	09/20/22 13:12	1
o-Xylene	<0.00202	U	0.00202	0.000347	mg/Kg		09/16/22 16:06	09/20/22 13:12	1
Xylenes, Total	<0.00403	U	0.00403	0.00102	mg/Kg		09/16/22 16:06	09/20/22 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*09/16/22 16:06*	*09/20/22 13:12*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Client Sample ID: S-12565619-090-722-HR02

Lab Sample ID: 890-2904-2
Matrix: Solid
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55
Sample Depth: 60

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*09/16/22 16:06*	*09/20/22 13:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	0.00102	mg/Kg			09/20/22 14:56	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	15.0	mg/Kg			09/12/22 15:38	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	15.0	mg/Kg		09/12/22 08:43	09/12/22 14:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	15.0	mg/Kg		09/12/22 08:43	09/12/22 14:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0	mg/Kg		09/12/22 08:43	09/12/22 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*09/12/22 08:43*	*09/12/22 14:57*	*1*
o-Terphenyl	*109*		*70 - 130*	*09/12/22 08:43*	*09/12/22 14:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26.3**		4.99	0.857	mg/Kg			09/13/22 16:34	1

Client Sample ID: S-12565619-090-722-HR03

Lab Sample ID: 890-2904-3
Matrix: Solid
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55
Sample Depth: 65

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000462**	**J**	0.00200	0.000384	mg/Kg		09/16/22 16:06	09/20/22 13:32	1
Toluene	**0.000485**	**J**	0.00200	0.000455	mg/Kg		09/16/22 16:06	09/20/22 13:32	1
Ethylbenzene	<0.00200	U	0.00200	0.000564	mg/Kg		09/16/22 16:06	09/20/22 13:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	0.00101	mg/Kg		09/16/22 16:06	09/20/22 13:32	1
o-Xylene	<0.00200	U	0.00200	0.000343	mg/Kg		09/16/22 16:06	09/20/22 13:32	1
Xylenes, Total	<0.00399	U	0.00399	0.00101	mg/Kg		09/16/22 16:06	09/20/22 13:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*09/16/22 16:06*	*09/20/22 13:32*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*09/16/22 16:06*	*09/20/22 13:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	0.00101	mg/Kg			09/20/22 14:56	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	15.0	mg/Kg			09/12/22 15:38	1

Eurofins Carlsbad

Client Sample Results

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Client Sample ID: S-12565619-090-722-HR03

Lab Sample ID: 890-2904-3
Matrix: Solid
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55
Sample Depth: 65

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	15.0	mg/Kg		09/12/22 08:43	09/12/22 15:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	15.0	mg/Kg		09/12/22 08:43	09/12/22 15:19	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0	mg/Kg		09/12/22 08:43	09/12/22 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*09/12/22 08:43*	*09/12/22 15:19*	*1*
o-Terphenyl	*97*		*70 - 130*	*09/12/22 08:43*	*09/12/22 15:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.4**		4.95	0.850	mg/Kg			09/13/22 16:49	1

Client Sample ID: S-12565619-090-722-HR04

Lab Sample ID: 890-2904-4
Matrix: Solid
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55
Sample Depth: 70

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	0.000387	mg/Kg		09/16/22 16:06	09/20/22 13:53	1
Toluene	**0.000497**	**J**	0.00201	0.000459	mg/Kg		09/16/22 16:06	09/20/22 13:53	1
Ethylbenzene	<0.00201	U	0.00201	0.000568	mg/Kg		09/16/22 16:06	09/20/22 13:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	0.00102	mg/Kg		09/16/22 16:06	09/20/22 13:53	1
o-Xylene	<0.00201	U	0.00201	0.000346	mg/Kg		09/16/22 16:06	09/20/22 13:53	1
Xylenes, Total	<0.00402	U	0.00402	0.00102	mg/Kg		09/16/22 16:06	09/20/22 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*09/16/22 16:06*	*09/20/22 13:53*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*09/16/22 16:06*	*09/20/22 13:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	0.00102	mg/Kg			09/20/22 14:56	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	15.0	mg/Kg			09/12/22 15:38	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	15.0	mg/Kg		09/12/22 08:43	09/12/22 15:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	15.0	mg/Kg		09/12/22 08:43	09/12/22 15:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0	mg/Kg		09/12/22 08:43	09/12/22 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*09/12/22 08:43*	*09/12/22 15:40*	*1*
o-Terphenyl	*99*		*70 - 130*	*09/12/22 08:43*	*09/12/22 15:40*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Client Sample ID: S-12565619-090-722-HR04

Lab Sample ID: 890-2904-4
Matrix: Solid
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55
Sample Depth: 70

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.4		4.96	0.851	mg/Kg			09/13/22 16:54	1

Client Sample ID: S-12565619-090-722-HR05

Lab Sample ID: 890-2904-5
Matrix: Solid
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55
Sample Depth: 80

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000386	mg/Kg		09/16/22 16:06	09/20/22 14:13	1
Toluene	<0.00200	U	0.00200	0.000457	mg/Kg		09/16/22 16:06	09/20/22 14:13	1
Ethylbenzene	<0.00200	U	0.00200	0.000566	mg/Kg		09/16/22 16:06	09/20/22 14:13	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	0.00101	mg/Kg		09/16/22 16:06	09/20/22 14:13	1
o-Xylene	<0.00200	U	0.00200	0.000345	mg/Kg		09/16/22 16:06	09/20/22 14:13	1
Xylenes, Total	<0.00401	U	0.00401	0.00101	mg/Kg		09/16/22 16:06	09/20/22 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*09/16/22 16:06*	*09/20/22 14:13*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*09/16/22 16:06*	*09/20/22 14:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	0.00101	mg/Kg			09/20/22 14:56	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	14.9	mg/Kg			09/12/22 15:38	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	14.9	mg/Kg		09/12/22 08:43	09/12/22 16:02	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	14.9	mg/Kg		09/12/22 08:43	09/12/22 16:02	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	14.9	mg/Kg		09/12/22 08:43	09/12/22 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*09/12/22 08:43*	*09/12/22 16:02*	*1*
o-Terphenyl	*97*		*70 - 130*	*09/12/22 08:43*	*09/12/22 16:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.34		4.96	0.851	mg/Kg			09/13/22 16:58	1

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2904-1	S-12565619-090-722-HR01	87	127
890-2904-2	S-12565619-090-722-HR02	116	104
890-2904-3	S-12565619-090-722-HR03	110	108
890-2904-4	S-12565619-090-722-HR04	105	106
890-2904-5	S-12565619-090-722-HR05	92	111
LCS 880-34690/1-A	Lab Control Sample	89	101
LCSD 880-34690/2-A	Lab Control Sample Dup	84	104
MB 880-34689/5-B	Method Blank	101	117
MB 880-34690/5-A	Method Blank	101	113

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2904-1	S-12565619-090-722-HR01	98	92
890-2904-1 MS	S-12565619-090-722-HR01	111	93
890-2904-1 MSD	S-12565619-090-722-HR01	114	95
890-2904-2	S-12565619-090-722-HR02	120	109
890-2904-3	S-12565619-090-722-HR03	102	97
890-2904-4	S-12565619-090-722-HR04	102	99
890-2904-5	S-12565619-090-722-HR05	102	97
LCS 880-34180/2-A	Lab Control Sample	117	117
LCSD 880-34180/3-A	Lab Control Sample Dup	119	121
MB 880-34180/1-A	Method Blank	106	105

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-34689/5-B
Matrix: Solid
Analysis Batch: 34832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34689

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000385	mg/Kg		09/16/22 15:45	09/19/22 17:24	1
Toluene	<0.00200	U	0.00200	0.000456	mg/Kg		09/16/22 15:45	09/19/22 17:24	1
Ethylbenzene	<0.00200	U	0.00200	0.000565	mg/Kg		09/16/22 15:45	09/19/22 17:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00101	mg/Kg		09/16/22 15:45	09/19/22 17:24	1
o-Xylene	<0.00200	U	0.00200	0.000344	mg/Kg		09/16/22 15:45	09/19/22 17:24	1
Xylenes, Total	<0.00400	U	0.00400	0.00101	mg/Kg		09/16/22 15:45	09/19/22 17:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*09/16/22 15:45*	*09/19/22 17:24*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*09/16/22 15:45*	*09/19/22 17:24*	*1*

Lab Sample ID: MB 880-34690/5-A
Matrix: Solid
Analysis Batch: 34832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34690

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000385	mg/Kg		09/16/22 16:06	09/20/22 05:00	1
Toluene	<0.00200	U	0.00200	0.000456	mg/Kg		09/16/22 16:06	09/20/22 05:00	1
Ethylbenzene	<0.00200	U	0.00200	0.000565	mg/Kg		09/16/22 16:06	09/20/22 05:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00101	mg/Kg		09/16/22 16:06	09/20/22 05:00	1
o-Xylene	<0.00200	U	0.00200	0.000344	mg/Kg		09/16/22 16:06	09/20/22 05:00	1
Xylenes, Total	<0.00400	U	0.00400	0.00101	mg/Kg		09/16/22 16:06	09/20/22 05:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*09/16/22 16:06*	*09/20/22 05:00*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*09/16/22 16:06*	*09/20/22 05:00*	*1*

Lab Sample ID: LCS 880-34690/1-A
Matrix: Solid
Analysis Batch: 34832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34690

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09325		mg/Kg		93	70 - 130
Toluene	0.100	0.08049		mg/Kg		80	70 - 130
Ethylbenzene	0.100	0.07759		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.200	0.1618		mg/Kg		81	70 - 130
o-Xylene	0.100	0.08093		mg/Kg		81	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-34690/2-A
Matrix: Solid
Analysis Batch: 34832

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34690

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09922		mg/Kg		99	70 - 130	6	35

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-34690/2-A
Matrix: Solid
Analysis Batch: 34832

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34690

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08461		mg/Kg		85	70 - 130	5	35
Ethylbenzene			0.100	0.08148		mg/Kg		81	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1684		mg/Kg		84	70 - 130	4	35
o-Xylene			0.100	0.08379		mg/Kg		84	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-34180/1-A
Matrix: Solid
Analysis Batch: 34169

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34180

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	15.0	mg/Kg		09/12/22 08:43	09/12/22 10:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	15.0	mg/Kg		09/12/22 08:43	09/12/22 10:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0	mg/Kg		09/12/22 08:43	09/12/22 10:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*09/12/22 08:43*	*09/12/22 10:56*	*1*
o-Terphenyl	*105*		*70 - 130*	*09/12/22 08:43*	*09/12/22 10:56*	*1*

Lab Sample ID: LCS 880-34180/2-A
Matrix: Solid
Analysis Batch: 34169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34180

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	902.7		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1104		mg/Kg		110	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*117*		*70 - 130*

Lab Sample ID: LCSD 880-34180/3-A
Matrix: Solid
Analysis Batch: 34169

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34180

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	819.5		mg/Kg		82	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	1035		mg/Kg		103	70 - 130	6	20

QC Sample Results

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-34180/3-A
Matrix: Solid
Analysis Batch: 34169

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34180

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	121		70 - 130

Lab Sample ID: 890-2904-1 MS
Matrix: Solid
Analysis Batch: 34169

Client Sample ID: S-12565619-090-722-HR01
Prep Type: Total/NA
Prep Batch: 34180

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	815.3		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	111		997	838.4		mg/Kg		73	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-2904-1 MSD
Matrix: Solid
Analysis Batch: 34169

Client Sample ID: S-12565619-090-722-HR01
Prep Type: Total/NA
Prep Batch: 34180

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	850.4		mg/Kg		85	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	111		999	875.8		mg/Kg		77	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	95		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-34103/1-A
Matrix: Solid
Analysis Batch: 34370

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	0.858	mg/Kg			09/13/22 14:52	1

Lab Sample ID: LCS 880-34103/2-A
Matrix: Solid
Analysis Batch: 34370

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	241.8		mg/Kg		97	90 - 110

QC Sample Results

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-34103/3-A
Matrix: Solid
Analysis Batch: 34370

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	242.1		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

GC VOA

Prep Batch: 34689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-34689/5-B	Method Blank	Total/NA	Solid	5035	

Prep Batch: 34690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2904-1	S-12565619-090-722-HR01	Total/NA	Solid	5035	
890-2904-2	S-12565619-090-722-HR02	Total/NA	Solid	5035	
890-2904-3	S-12565619-090-722-HR03	Total/NA	Solid	5035	
890-2904-4	S-12565619-090-722-HR04	Total/NA	Solid	5035	
890-2904-5	S-12565619-090-722-HR05	Total/NA	Solid	5035	
MB 880-34690/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34690/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34690/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 34832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2904-1	S-12565619-090-722-HR01	Total/NA	Solid	8021B	34690
890-2904-2	S-12565619-090-722-HR02	Total/NA	Solid	8021B	34690
890-2904-3	S-12565619-090-722-HR03	Total/NA	Solid	8021B	34690
890-2904-4	S-12565619-090-722-HR04	Total/NA	Solid	8021B	34690
890-2904-5	S-12565619-090-722-HR05	Total/NA	Solid	8021B	34690
MB 880-34689/5-B	Method Blank	Total/NA	Solid	8021B	34689
MB 880-34690/5-A	Method Blank	Total/NA	Solid	8021B	34690
LCS 880-34690/1-A	Lab Control Sample	Total/NA	Solid	8021B	34690
LCSD 880-34690/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34690

Analysis Batch: 34960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2904-1	S-12565619-090-722-HR01	Total/NA	Solid	Total BTEX	
890-2904-2	S-12565619-090-722-HR02	Total/NA	Solid	Total BTEX	
890-2904-3	S-12565619-090-722-HR03	Total/NA	Solid	Total BTEX	
890-2904-4	S-12565619-090-722-HR04	Total/NA	Solid	Total BTEX	
890-2904-5	S-12565619-090-722-HR05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 34169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2904-1	S-12565619-090-722-HR01	Total/NA	Solid	8015B NM	34180
890-2904-2	S-12565619-090-722-HR02	Total/NA	Solid	8015B NM	34180
890-2904-3	S-12565619-090-722-HR03	Total/NA	Solid	8015B NM	34180
890-2904-4	S-12565619-090-722-HR04	Total/NA	Solid	8015B NM	34180
890-2904-5	S-12565619-090-722-HR05	Total/NA	Solid	8015B NM	34180
MB 880-34180/1-A	Method Blank	Total/NA	Solid	8015B NM	34180
LCS 880-34180/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34180
LCSD 880-34180/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34180
890-2904-1 MS	S-12565619-090-722-HR01	Total/NA	Solid	8015B NM	34180
890-2904-1 MSD	S-12565619-090-722-HR01	Total/NA	Solid	8015B NM	34180

Prep Batch: 34180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2904-1	S-12565619-090-722-HR01	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

GC Semi VOA (Continued)

Prep Batch: 34180 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2904-2	S-12565619-090-722-HR02	Total/NA	Solid	8015NM Prep	
890-2904-3	S-12565619-090-722-HR03	Total/NA	Solid	8015NM Prep	
890-2904-4	S-12565619-090-722-HR04	Total/NA	Solid	8015NM Prep	
890-2904-5	S-12565619-090-722-HR05	Total/NA	Solid	8015NM Prep	
MB 880-34180/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34180/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34180/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2904-1 MS	S-12565619-090-722-HR01	Total/NA	Solid	8015NM Prep	
890-2904-1 MSD	S-12565619-090-722-HR01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 34304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2904-1	S-12565619-090-722-HR01	Total/NA	Solid	8015 NM	
890-2904-2	S-12565619-090-722-HR02	Total/NA	Solid	8015 NM	
890-2904-3	S-12565619-090-722-HR03	Total/NA	Solid	8015 NM	
890-2904-4	S-12565619-090-722-HR04	Total/NA	Solid	8015 NM	
890-2904-5	S-12565619-090-722-HR05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 34103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2904-1	S-12565619-090-722-HR01	Soluble	Solid	DI Leach	
890-2904-2	S-12565619-090-722-HR02	Soluble	Solid	DI Leach	
890-2904-3	S-12565619-090-722-HR03	Soluble	Solid	DI Leach	
890-2904-4	S-12565619-090-722-HR04	Soluble	Solid	DI Leach	
890-2904-5	S-12565619-090-722-HR05	Soluble	Solid	DI Leach	
MB 880-34103/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34103/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34103/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 34370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2904-1	S-12565619-090-722-HR01	Soluble	Solid	300.0	34103
890-2904-2	S-12565619-090-722-HR02	Soluble	Solid	300.0	34103
890-2904-3	S-12565619-090-722-HR03	Soluble	Solid	300.0	34103
890-2904-4	S-12565619-090-722-HR04	Soluble	Solid	300.0	34103
890-2904-5	S-12565619-090-722-HR05	Soluble	Solid	300.0	34103
MB 880-34103/1-A	Method Blank	Soluble	Solid	300.0	34103
LCS 880-34103/2-A	Lab Control Sample	Soluble	Solid	300.0	34103
LCSD 880-34103/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34103

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Client Sample ID: S-12565619-090-722-HR01
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55

Lab Sample ID: 890-2904-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	34690	09/16/22 16:06	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34832	09/20/22 12:51	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34960	09/20/22 14:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34304	09/12/22 15:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34180	09/12/22 08:43	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34169	09/12/22 12:05	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	34103	09/09/22 12:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34370	09/13/22 16:29	CH	EET MID

Client Sample ID: S-12565619-090-722-HR02
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55

Lab Sample ID: 890-2904-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	34690	09/16/22 16:06	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34832	09/20/22 13:12	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34960	09/20/22 14:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34304	09/12/22 15:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34180	09/12/22 08:43	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34169	09/12/22 14:57	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	34103	09/09/22 12:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34370	09/13/22 16:34	CH	EET MID

Client Sample ID: S-12565619-090-722-HR03
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55

Lab Sample ID: 890-2904-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	34690	09/16/22 16:06	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34832	09/20/22 13:32	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34960	09/20/22 14:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34304	09/12/22 15:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34180	09/12/22 08:43	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34169	09/12/22 15:19	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	34103	09/09/22 12:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34370	09/13/22 16:49	CH	EET MID

Client Sample ID: S-12565619-090-722-HR04
Date Collected: 09/07/22 00:00
Date Received: 09/08/22 13:55

Lab Sample ID: 890-2904-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	34690	09/16/22 16:06	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34832	09/20/22 13:53	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34960	09/20/22 14:56	AJ	EET MID

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Lab Chronicle

Client: GHD Services Inc.
Job ID: 890-2904-1
Project/Site: Snapping Pump

Client Sample ID: S-12565619-090-722-HR04
Lab Sample ID: 890-2904-4
Date Collected: 09/07/22 00:00
Matrix: Solid
Date Received: 09/08/22 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			34304	09/12/22 15:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	34180	09/12/22 08:43	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34169	09/12/22 15:40	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	34103	09/09/22 12:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34370	09/13/22 16:54	CH	EET MID

Client Sample ID: S-12565619-090-722-HR05
Lab Sample ID: 890-2904-5
Date Collected: 09/07/22 00:00
Matrix: Solid
Date Received: 09/08/22 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	34690	09/16/22 16:06	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34832	09/20/22 14:13	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34960	09/20/22 14:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34304	09/12/22 15:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	34180	09/12/22 08:43	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34169	09/12/22 16:02	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	34103	09/09/22 12:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34370	09/13/22 16:58	CH	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 890-2904-1
Project/Site: Snapping Pump

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: GHD Services Inc.
Project/Site: Snapping Pump

Job ID: 890-2904-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2904-1	S-12565619-090-722-HR01	Solid	09/07/22 00:00	09/08/22 13:55	55
890-2904-2	S-12565619-090-722-HR02	Solid	09/07/22 00:00	09/08/22 13:55	60
890-2904-3	S-12565619-090-722-HR03	Solid	09/07/22 00:00	09/08/22 13:55	65
890-2904-4	S-12565619-090-722-HR04	Solid	09/07/22 00:00	09/08/22 13:55	70
890-2904-5	S-12565619-090-722-HR05	Solid	09/07/22 00:00	09/08/22 13:55	80

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Project Manager:	J.T. Murrey.	Bill to: (if different)	Camille Bryant.
Company Name:	GHD.	Company Name:	Plains AA.
Address:		Address:	
City, State ZIP:	Midland, Tx	City, State ZIP:	Midland, Tx
Phone:	361 252-6136	Email:	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Snapping Pump.	Turn Around	
Project Number:	12565619.	☑ Routine ☐ Rush	
Project Location:	Snapping Pump.	Due Date:	
Sampler's Name:	Hector Ruiz	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Samples Received Intact:	(Yes) No	Temp Blank:	Yes (No)	Wet Ice: (Yes) No
Cooler Custody Seals:	Yes No (N/A)	Thermometer ID:	TNM007	
Sample Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Total Containers:		Temperature Reading:	5.8	
		Corrected Temperature:	5.6	

ANALYSIS REQUEST

Pres. Code | Parameters: BTEX 8021B | TPH 8015B modified | Chloride - 300

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Sample Comments
12565619-090722-HR01		090722		55		1	
" -HR02				60		1	
" -HR03				65		1	
" -HR04				70		1	
" -HR05				80		1	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Hector Ruiz	9.8.22 1355	090822/13:55	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 890-2904-1
SDG Number:

Login Number: 2904
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 890-2904-1
SDG Number:

Login Number: 2904
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 09/09/22 11:04 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Attachment C

Photographic Log

Site Photographs

Photo 1 *View to the west of the remedial excavation.*

Photo 2 *View to the west of the remedial excavation.*

Site Photographs

Photo 3 *View to the northwest of the remedial excavation.*

Photo 4 *View to the northwest of the remedial excavation.*

Site Photographs

Photo 5 *Liner installation during backfill activities.*

Photo 6 *Liner installation and backfill activities.*

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

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

CONDITIONS

Action 158164

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay Street Suite 1900 Houston, TX 77002	OGRID: 34053
	Action Number: 158164
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	12/9/2022