Form C-141
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State of New Mexico
Oil Conservation Division

Incident ID	nRM2019638426
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>106 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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State of New Mexico
Oil Conservation Division

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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.

Printed Name: Andrew Parker Title: Env. Scientist

Signature: Andrew Parker Date: 04/28/2022

email: aparker@advanceenerypartners.com Telephone: 970-570-9535

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nRM2019638426
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Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- [x] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

- [x] Extents of contamination must be fully delineated.

- [x] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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.

Printed Name: Andrew Parker Title: Env. Scientist

Signature: Andrew Parker Date: 04/28/2022

email: aparker@advanceenergypartners.com Telephone: 970-570-9535

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☒ Deferral Approved

Signature: Jennifer Nobui Date: 05/20/2022

Tracking Number: nRM2019638426
CLOSURE REPORT
Dagger State Com #504H
Produced Water Release
Lea County, New Mexico

Latitude: 32.4487925° North
Longitude: -103.6063424° West

LAI Project No. 20-0100-05

April 28, 2022

Prepared for:
Select Energy Services, LLC
5721 NW 132nd Street
Oklahoma City, OK 73142

Prepared by:
Larson & Associates, Inc.
507 North Marienfeld Street, Suite 202
Midland, Texas 79701

Mark J. Larson, P.G.
Certified Professional Geologist #10490

Robert Nelson
Sr. Geoscientist

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1.0 INTRODUCTION

Larson & Associates, Inc., (LAI), on behalf of Select Energy Services, LLC (Select), submits this closure report with remediation deferral request to the New Mexico Oil Conservation Division (OCD) District 1 for a produced water spill at the Dagger State Com #504H (Site) located in Unit I (NE/4, SE/4), Section 30, Township 21 South, Range 33 East in Lea County, New Mexico. The surface and mineral owner is the State of New Mexico administered by the New Mexico State Land Office (SLO). The geodetic position is North 32.4487925° and West -103.6063424°. Figure 1 presents a topographic map.

1.1 Background

The release was discovered on June 23, 2020. The spill occurred due to human error resulting in approximately 100 barrels (bbls) of produced water to be released onto the lined containment and nearby earthen embankment that subsequently washed out into a lined pit. Approximately 90 bbls were recovered. Inspection of the liner revealed no major defects. The affected area on the liner measures approximately 17,661 square feet and approximately 2,309 square feet on the earthen embankment. The initial C-141 was submitted to OCD District 1 and was assigned incident number nRM2019638426. Appendix A presents the initial C-141.

1.2 Physical Setting

The Physical Setting is as follows:

- The surface elevation is approximately 3,848 feet above mean sea level (msl).
- The topography slopes to the southeast.
- There are no surface water features within 1,000 feet of the site.
- Karst data provided by the USGS describes the Site as “Low Risk” potential.
- The soils are designated as “Kermit soils and Dune land, 0 to 12 percent slopes”, consisting of 0 to 60 inches of fine sand.
- The surface geology is designated quaternary age eolian sand, deposited in dunes, dune ridges, and sheets undivided (USGS).
- Groundwater occurs at a depth greater than 106 feet below ground surface (bgs) based on depth to groundwater measurements 72 hours after drilling a temporary well (TW-1).

Appendix B presents the well log and plugging record. Appendix C presents the USGS Karst data and site location.

1.3 Remediation Action Levels

The following remediation standards are based on closure criteria for soils impacted by a release as presented in Table 1 of 19.15.29 NMAC:

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 2,500 mg/Kg

- Chloride 20,00 mg/Kg

Further, 19.15.29.13 NMAC (Restoration, Reclamation and Re-Vegetation) requires the operator to restore the impacted surface area that existed prior to the release or their final land use.

2.0 DELINEATION

On June 25, 2020, and August 28, 2020, LAI personnel used a stainless-steel hand auger to collect soil samples from eight (8) locations within the spill area and in each cardinal direction of the spill (S-1 through S-8). The samples were collected between approximately 0.5 and 1 foot below ground surface (bgs) and were delivered under chain of custody and preservation to Permian Basin Environmental Laboratory (PBEL) in Midland, Texas. The laboratory analyzed the samples for benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH), including gasoline range organics (C6-C12), diesel range organics (>C12-C28), and oil range organics (>C28-C35), and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively. Table 1 presents the delineation laboratory analytical data summary. Figure 2 presents a focused aerial map showing the spill boundaries and sample locations.

On August 28, 2020, LAI personnel utilized a Geoprobe® 7822DT direct push rig to further delineate the spill. Soil samples were collected at four (4) locations (S-9 through S-12) and were analyzed by PBEL.

Benzene and BTEX were below the NMOCD remediation levels (19.15.29 NMAC Table 1) of 10 milligrams per kilogram (mg/Kg) and 50 mg/Kg, respectively. TPH was below the OCD remediation limit (2,500 mg/Kg) but exceeded the OCD surface restoration level (19.15.29.13 NMAC) of 100 mg/Kg in the upper four (4) feet in the following samples:

Sample	Depth (Feet)	TPH (mg/Kg)
S-1	1	152
S-2	1	178
S-3	0.5	142
S-4	1	109

Chloride was below the OCD remediation limit (20,000 mg/Kg) but exceeded the OCD surface restoration (19.15.29.13 NMAC) limit of 600 mg/Kg in the upper four (4) feet in the following samples:

Sample	Depth (Feet)	Chloride (mg/Kg)
S-1	0.5	9,720
	1	7,970
	3	702
S-2	0.5	13,400
	1	7,250
S-3	0.5	7,500
	1	7,720

S-4	0.5	7,960
	1	1,630

Appendix D presents the laboratory reports.

3.0 REMEDIATION

On January 4, 2022, P2 Construction, Inc. (P2), under supervision from LAI, excavated soil from the spill area measuring approximately 2,309 square feet encompassing sample locations S-1 through S-4. Soil was excavated to a maximum depth of approximately 3 feet bgs. The contaminated soil was stockpiled on a liner adjacent to the excavation prior to being hauled to an NMOCD approved disposal facility.

On January 17, 2022, LAI personnel collected seventeen (17) bottom and sidewall confirmation soil samples from with the excavated area. The soil samples were delivered under chain of custody and preservation to Eurofins – Xenco (Xenco) Laboratories in Midland, Texas. The laboratory analyzed the samples for BTEX, TPH, and chloride by EPA SW-846 Methods 8021B, 8015M, and 300E, respectively. All confirmation soil samples reported benzene, BTEX, and TPH below the NMOCD remediation levels. Chloride reported above the OCD remediation level in the following confirmation samples:

Sample ID	Location	Depth (Feet)	Chloride (mg/Kg)
C-2	Bottom	3	932
C-3	Sidewall	0 – 3	838
C-4	Sidewall	0 – 3	802
C-8	Bottom	1.5	771
C-9	Bottom	1.5	917

On January 26, 2022, LAI personnel collected two (2) composite soil samples from the nearby Blevins – Merchant Pond borrow pit. Laboratory analysis reported benzene, BTEX, and TPH were below the analytical method reporting limits. Chloride was less than 600 mg/Kg in the backfill composite samples.

On January 27 and 28, 2022, P2 excavated an additional one (1) foot from the sidewall encompassing C-4, one (1) foot from the bottom encompassing sample locations C-2 and C-8, and 2.5 feet from the bottom encompassing sample location C-9. Subsequent laboratory analysis reported benzene, BTEX, TPH, and chloride concentrations from the additional excavated areas below the OCD remediation levels. On February 5, 2022, the excavation was backfilled to the surface with clean topsoil. Table 2 presents the confirmation laboratory analytical data summary.

4.0 REMEDIATION DEFERRAL REQUEST

Select requests approval to defer remediation at sample location C-3 until decommission and closure of the produced water recycling containment. Additional excavation encompassing sample location C-3 risks

jeopardizing the structural integrity of the containment berm and causing further environmental impacts. Appendix E presents photographic documentation.

Select proposes the following remedial actions upon decommission and closure of the recycling containment:

- Excavate soil from the sidewall encompassing C-3;
- Backfill excavations with clean material assuming achievement of OCD remediation levels; and
- Prepare report with photographs for submittal to OCD District I.

Tables

Table 1
Soil Sample Analytical Data Summary
Select Energy Services, Dagger Lake Pit
Lea County, New Mexico
North 32° 26' 55.15", West 103° 36' 22.52"

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Cl- (mg/Kg)
Remediation Level:				**10**	**50**				**100/2,500**	**600/20,000**
S-1	0.5	6/25/2020	In-Situ	<0.00110	<0.00100	<27.5	38.9	<27.5	38.9	**9,720**
	1	6/25/2020	In-Situ	<0.00109	<0.00109	<27.2	<27.2	<27.2	<27.2	**9,530**
	1	8/28/2020	In-Situ	<0.00108	<0.00108	<26.9	43.8	108	**152**	**7,970**
	3	8/28/2020	In-Situ	<0.00108	<0.00108	<26.9	50.6	<26.9	50.6	**702**
	5	8/28/2020	In-Situ	--	--	--	--	--	--	50.1
S-2	0.5	6/25/2020	In-Situ	<0.00112	<0.00112	<28.1	<28.1	<28.1	<28.1	**13,400**
	1	6/25/2020	In-Situ	<0.00109	<0.00109	45.1	60.8	71.7	**178**	**8,020**
	1	8/28/2020	In-Situ	<0.00108	<0.00108	<26.9	<26.9	91.5	91.5	**7,250**
	3	8/28/2020	In-Situ	<0.00111	<0.00111	<27.8	31.6	50.9	82.6	364
S-3	0.5	6/25/2020	In-Situ	<0.00109	<0.00109	50.8	34.8	56.7	**142**	**7,500**
	1	6/25/2020	In-Situ	<0.00109	<0.00109	<27.2	<27.2	<27.2	<27.2	**7,720**
	1	8/28/2020	In-Situ	<0.00105	<0.00105	<26.3	<26.3	<26.3	<26.3	577
S-4	0.5	6/25/2020	In-Situ	<0.00108	<0.00108	<26.9	<26.9	<26.9	<26.9	**7,960**
	1	6/25/2020	In-Situ	<0.00108	<0.00108	<26.9	<26.9	<26.9	<26.9	**9,160**
	1	8/28/2020	In-Situ	<0.00103	<0.00103	<25.8	78.2	31.3	**109**	**1,630**
	3	8/28/2020	In-Situ	<0.00104	<0.00104	<26.0	<26.0	<26.0	<26.0	9.48
S-5	0.5	6/25/2020	In-Situ	<0.00100	<0.00100	<25.0	<25.0	<25.0	<25.0	63.5
	1	6/25/2020	In-Situ	<0.00100	<0.00100	<25.0	<25.0	<25.0	<25.0	10.5
S-6	0.5	6/25/2020	In-Situ	<0.00100	<0.00100	<25.0	<25.0	<25.0	<25.0	47.7
	1	6/25/2020	In-Situ	<0.00100	<0.00100	<25.0	<25.0	<25.0	<25.0	46.7

Table 1
Soil Sample Analytical Data Summary
Select Energy Services, Dagger Lake Pit
Lea County, New Mexico
North 32° 26' 55.15", West 103° 36' 22.52"

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Cl- (mg/Kg)
Remediation Level:				**10**	**50**				**100/2,500**	**600/20,000**
S-7	0.5	6/25/2020	In-Situ	<0.00100	<0.00100	<25.0	<25.0	<25.0	<25.0	17.7
	1	6/25/2020	In-Situ	<0.00100	<0.00100	<25.0	<25.0	<25.0	<25.0	15.5
S-8	0.5	6/25/2020	In-Situ	<0.00102	<0.00102	<25.5	<25.5	<25.5	<25.5	63.9
	1	6/25/2020	In-Situ	<0.00100	<0.00100	<25.0	<25.0	<25.0	<25.0	29.5
S-9	1	8/28/2020	In-Situ	<0.00109	<0.00109	<27.2	<27.2	<27.2	<27.2	75.8
S-10	1	8/28/2020	In-Situ	<0.00103	<0.00103	<25.8	<25.8	<25.8	<25.8	28.7
S-11	1	8/28/2020	In-Situ	<0.00102	<0.00102	<25.5	<25.5	<25.5	<25.5	456
S-12	1	8/28/2020	In-Situ	<0.00102	<0.00102	<25.5	<25.5	<25.5	<25.5	36.7

Notes: Laboratory analysis performed by Permian Basin Environmental Lab (PBEL), Midland, Texas by EPA Method 8021B (BTEX), 8015M (TPH), and 300 (chloride).
Depth in feet below ground surface (bgs)
mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)
Bold and highlighted exceeds OCD remediation action limits

Table 2

Confirmation Soil Sample Analytical Data Summary

Advanced Energy Dagger Pit Spill, Select Energy Produced Water Spill

Lea County, New Mexico

N32° 26' 55.15" W103° 36' 22.52"

Sample ID	Location	Depth (feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RAL:					**10**	**50**				**100/2,500**	**600/20,000**
C-1	**Bottom**	3	1/17/2022	In-Situ	<0.00202	<0.00403	<50.0	97.2	<50.0	97.2	<4.97
C-2	**Bottom**	3	1/17/2022	Excavated	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	**932**
		4.1	1/27/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	779
C-3	**Sidewall**	0 - 3	1/17/2022	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	**838**
C-4	**Sidewall**	0 - 3	1/17/2022	Excavated	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	**802**
		0 - 4.1	1/27/2022	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	196
C-5	**Bottom**	1	1/17/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	415
C-6	**Bottom**	1	1/17/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	415
C-7	**Sidewall**	0 - 1	1/17/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	559
C-8	**Bottom**	1.5	1/17/2022	Excavated	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**771**
		2.5	1/27/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	256
C-9	**Bottom**	1.5	1/17/2022	Excavated	<0.00201	<0.00402	<50.0	52.0	<50.0	52.0	**917**
		4.1	1/28/2022	In-Situ	<0.00200	<0.00399	<50.0	82.8	51.6	134	180
C-10	**Bottom**	1.5	1/17/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	478
C-11	**Bottom**	1.5	1/17/2022	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	192
C-12	**Sidewall**	0 - 1.5	1/17/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	506
C-13	**Bottom**	3	1/17/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	436
C-14	**Bottom**	3	1/17/2022	In-Situ	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	266
C-15	**Bottom**	3	1/17/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	154
C-16	**Sidewall**	0 - 3	1/17/2022	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	212
C-17	**Sidewall**	0 - 3	1/17/2022	In-Situ	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	228
BF-1	**--**	--	1/26/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<4.95
BF-2	**--**	--	1/26/2022	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	6.79

Notes: analysis performed by Eurofins - Xenco (Xenco), Midland, Texas by EPA SW-846 Methods 8021B (BTEX) and 8015M (TPH), and Method 300 (chloride)

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

Figures

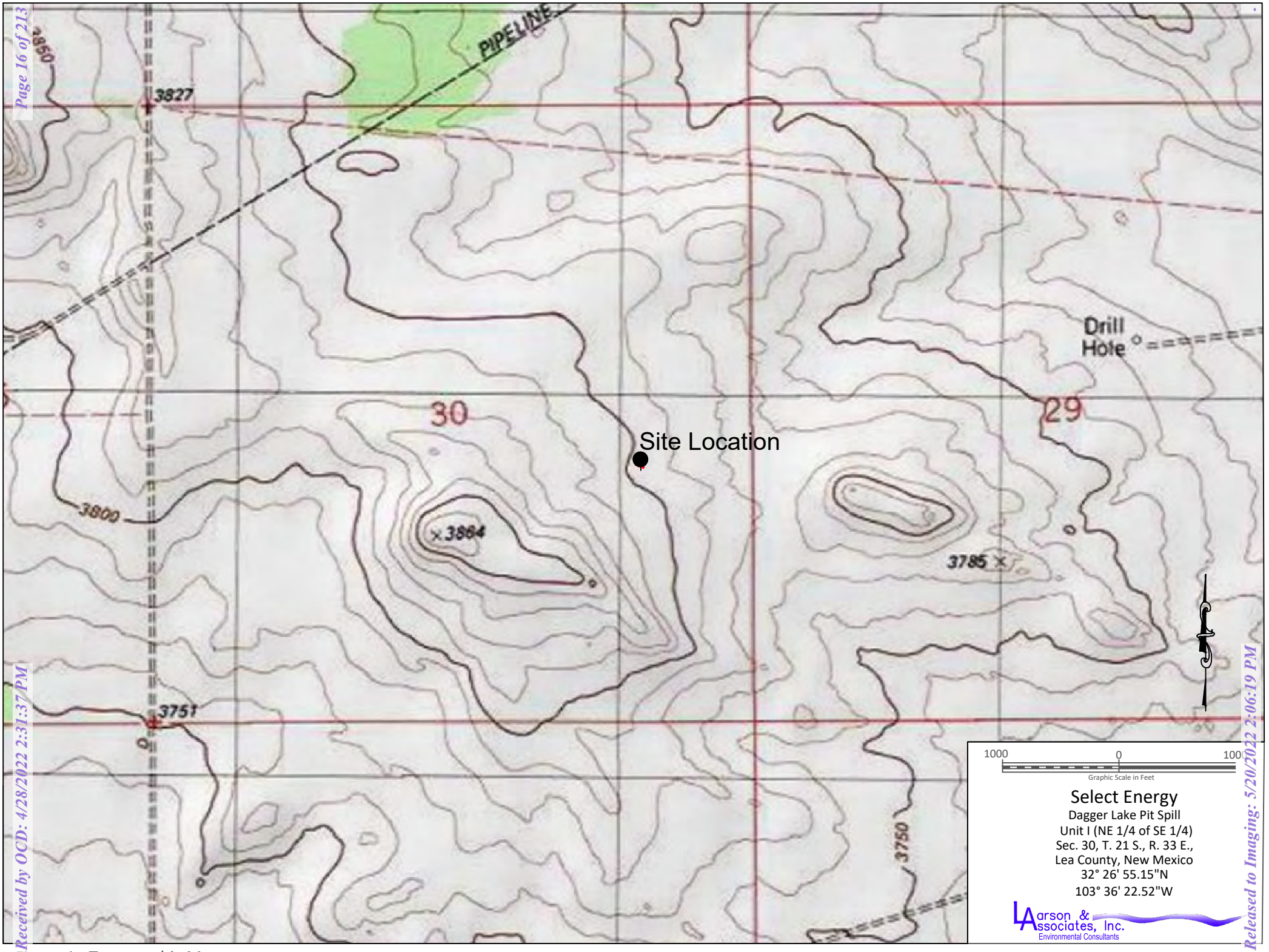

Figure 1 - Topographic Map

Figure 2a - Zoomed in Aerial Map

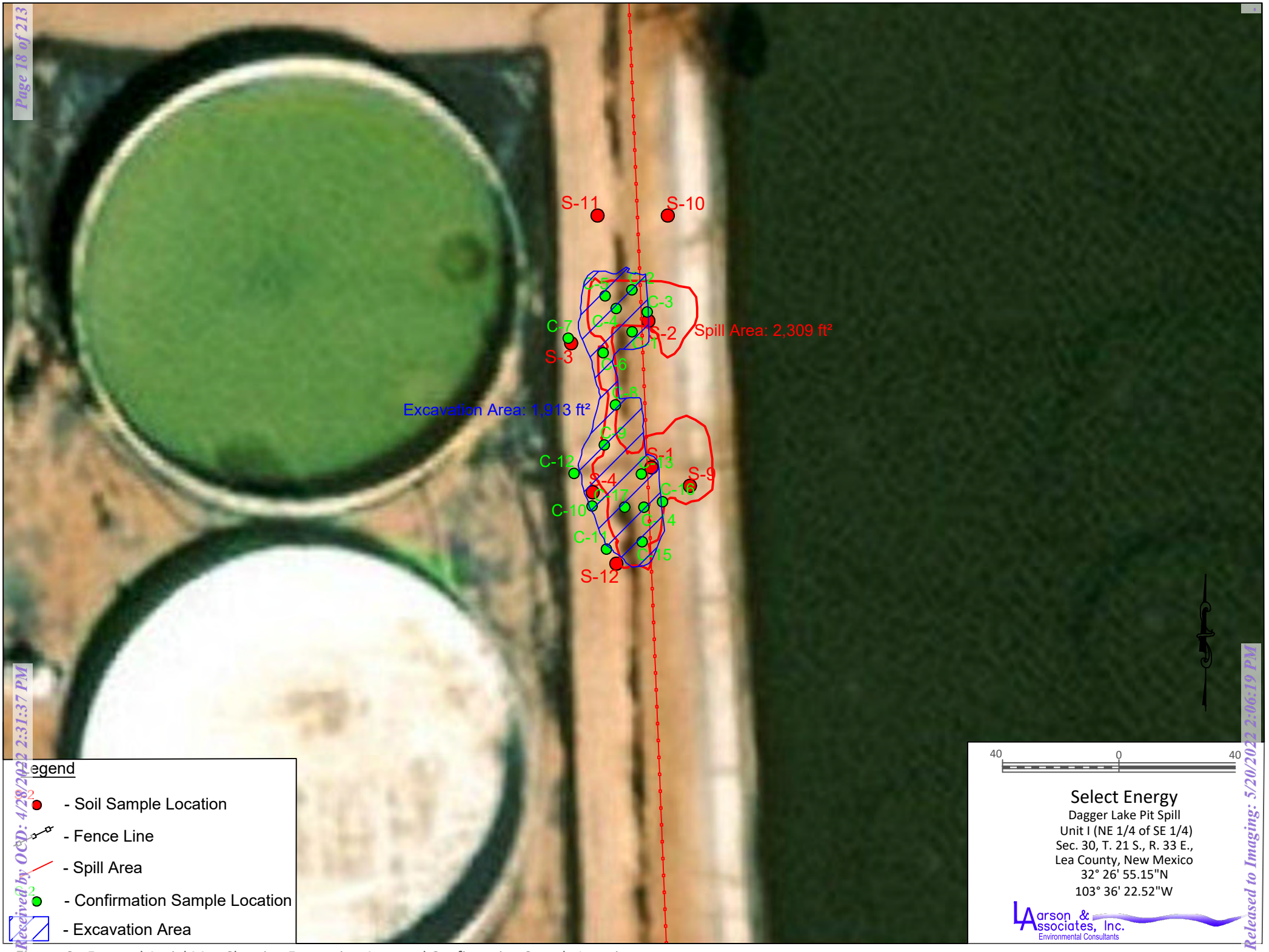

Figure 3 - Focused Aerial Map Showing Excavation Area and Confirmation Sample Locations

Figure 4 - Aerial Map Showing TMW-1

Appendix A

Initial C-141

Form C-141
Page 1

State of New Mexico
Oil Conservation Division

Incident ID	NRM2019638426
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Advance Energy Partners Hat Mesa LLC	OGRID: 372417
Contact Name: David Harwell	Contact Telephone: 281-235-3431
Contact email: DHarwell@advanceenergypartners.com	Incident # *(assigned by OCD)*
Contact mailing address: 11490 Westheimer Rd. Suite 950. Houston, TX 77077	

Location of Release Source

Latitude 32.4487925 Longitude -103.6063424
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Dagger Recycling Containment and Recycling Facility	Site Type: Layflat Flow Line
Date Release Discovered: 06/23/2020 @ 17:00 hrs	API# Adjacent to 30-025-43302 (Dagger State Com 504H)

Unit Letter	Section	Township	Range	County
I	30	21S	33E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls) :	Volume Recovered (bbls):
☒ Produced Water	Volume Released (bbls) 100 (net of 10)	Volume Recovered (bbls): 90 (vacuum truck)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Failure to shut valve on layflat flowline. Produced water was being transferred from the Dagger Recycling Containment to Goodnight Midstream's saltwater gathering system. Ninety barrels (90 bbls) of the release was contained on a synthetic liner associated with adjacent ASTs.

Volume calculations are from the meter on the vac truck and release area outside the footprint of the synthetic liner. Volume calculations attached for area outside of the liner footprint.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2019638426
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? 100 barrels of produced water was released. 90 barrels released onto synthetic liner recovered by vacuum truck. Net release 10 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Immediate notice was not given. Further evaluation of data collected subsequent to the initial release indicated that a major release occurred.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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.

Printed Name: Andrew Parker (R.T. Hicks Consultants) Title: Sr. Env. Specialist

Signature: Andrew Parker Date: July 7, 2020

email: andrew@rthicksconsult.com Telephone: 970-570-9535

OCD Only

Received by: Ramona Marcus Date: 7/14/2020

NRM2019638426

Spill Dimensions to Volume of Release Area outside footprint of Liner			
Input	**volume of affected soil**	**[feet^3]**	1065.00
Input	Porosity: typically is .35 to .40 for most soils	[-]	0.35
Input	Proportion of porosity filled with release fluid [0,1]	[-]	0.15
Output	volume of fluid	[feet^3]	**55.9**
		[gal]	**418.3**
		Barrels	10.0

Appendix B

Well Log and Plugging Record

Atkins
ENGINEERING ASSOCIATES INC.

2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

10/29/2021

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record CP-1882 Pod1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, CP-1882 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: as noted above

OSE DII NOV 1 2021 PM4:42

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (TW-1)	n/a	CP-1882

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Advanced Energy Partners	832.672.4700

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
11490 Westheimer Rd. Stuit 950	Houston	TX	77077

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	27	7.70	N
	LONGITUDE	103	36	17.7	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE SE NE Sec. 30 T21S R33E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
10/06/2021	10/07/2021	temporary well material	106	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	106	±6.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	9	9	Sand, Fine-grained, poorly graded, Red	Y ✓ N	
9	19	10	Caliche, with fine-grained sand, White/Tan	Y ✓ N	
19	69	50	Sand, Fine-grained, poorly graded, Tan/ Brown	Y ✓ N	
69	79	10	Sand, Fine-grained, poorly graded with clay, Reddish Brown	Y ✓ N	
79	106	27	Clay, Stiff, consolidated, with fine-grained sand, Reddish Brown	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 10/28/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

2021-10-28_CP-1882_OSE_Well Record and Log-forsigned

Final Audit Report 2021-10-29

Created:	2021-10-29
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAnssS7mjb_msszUkFnzTQWpA1oI8YdAXL

"2021-10-28_CP-1882_OSE_Well Record and Log-forsigned" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2021-10-29 - 3:54:49 PM GMT- IP address: 69.21.248.123

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2021-10-29 - 3:55:18 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2021-10-29 - 4:17:34 PM GMT- IP address: 64.90.153.232

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-10-29 - 4:18:13 PM GMT - Time Source: server- IP address: 64.90.153.232

Agreement completed.
2021-10-29 - 4:18:13 PM GMT

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: CP-1882-POD1

Well owner: Advanced Energy Partners Phone No.: 832.672.4700

Mailing address: 11490 Westheimer Rd. Stuit 950

City: Houston State: Texas Zip code: 77077

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/23

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge, Carmelo Trevino, Cameron Pruitt

4) Date well plugging began: 10/14/2021 Date well plugging concluded: 10/14/2021

5) GPS Well Location: Latitude: 32 deg, 27 min, 7.70 sec
Longitude: 103 deg, 36 min, 17.7 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 106 ft below ground level (bgl), by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 07/08/2021

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

RECEIVED NOV 1 2021 PM 4:45

Version: September 8, 2009
Page 1 of 2

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-10' Hydrated Bentonite	15.6 gallons	15 gallons	Augers	
	10'-106' Drill Cuttings	Approx. 152 gallons	152 gallons	Boring	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins

Signature of Well Driller

10/29/2021

Date

Version: September 8, 2009
Page 2 of 2

2021-10-28_CP-1882__WD-11 Plugging Record-forsign

Final Audit Report 2021-10-29

Created:	2021-10-29
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAJ56zL5gGf8mtJumZGiLTdDB7pgJ8zerB

"2021-10-28_CP-1882__WD-11 Plugging Record-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2021-10-29 - 3:55:07 PM GMT- IP address: 69.21.248.123

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Email viewed by Jack Atkins (jack@atkinseng.com)
2021-10-29 - 4:16:44 PM GMT- IP address: 64.90.153.232

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-10-29 - 4:17:17 PM GMT - Time Source: server- IP address: 64.90.153.232

Agreement completed.
2021-10-29 - 4:17:17 PM GMT

Adobe Sign

Appendix C

Karst Risk Potential

*New Mexico Kart or No Karst - QGIS

Project Edit View Layer Settings Plugins Vector Raster Database Web Mesh Processing Help

Browser

- Favorites
- Spatial Bookmarks
- Project Home
- Home
- C:\
- D:\
- L:\
- Z:\
- GeoPackage
- SpatiaLite
- PostGIS
- MSSQL
- Oracle
- DB2
- WMS/WMTS
- XYZ Tiles
- WCS
- WFS / OGC API - Features
- OWS
- ArcGisMapServer
- ArcGisFeatureServer
- GeoNode

Layers

- Added geom info
- carlsbad_west
- Karst_or_No_Karst
  - High
  - Low
  - Medium
- Bing Satellite

Layer Styling

Bing Satellite

Singleband color data

This renderer doesn't implement a graphical interface.

Layer Rendering

Live update Apply

Layer Styling | Processing Toolbox

Identify Results

Feature	Value
Karst_or_No_Karst	
Potential	Low
(Derived)	
(Actions)	
OBJECTID	20
Area	0
Perimeter	0
Acres	3468786.32825999986
Hectares	1403768.02303999988
Potential	Low
LINK	NULL
GlobalID	{7425CFA0-E688-45D3-A5D6-830984BBDF05}
Shape_STAr	14037680230.39999961853
Shape_STLe	898512.38263899996

Mode Current layer

View Tree Help

Coordinate 630645.2,3590756.1 Scale 1:2480 Magnifier 100% Rotation 0.0 ° Render EPSG:26913

Appendix D

Laboratory Reports

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: Dagger Lake Pit
Project Number: 20-0100-05
Location: NM

Lab Order Number: 0F26003

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 07/05/20

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Dagger Lake Pit
Project Number: 20-0100-05
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1 @ 0.5'	0F26003-01	Soil	06/25/20 10:30	06-26-2020 09:20
S-1 @ 1'	0F26003-02	Soil	06/25/20 10:35	06-26-2020 09:20
S-2 @ 0.5'	0F26003-03	Soil	06/25/20 10:37	06-26-2020 09:20
S-2 @ 1'	0F26003-04	Soil	06/25/20 10:40	06-26-2020 09:20
S-3 @ 0.5'	0F26003-05	Soil	06/25/20 10:45	06-26-2020 09:20
S-3 @ 1'	0F26003-06	Soil	06/25/20 10:47	06-26-2020 09:20
S-4 @ 0.5'	0F26003-07	Soil	06/25/20 11:05	06-26-2020 09:20
S-4 @ 1'	0F26003-08	Soil	06/25/20 11:10	06-26-2020 09:20
S-5 @ 0.5'	0F26003-09	Soil	06/25/20 11:15	06-26-2020 09:20
S-5 @ 1'	0F26003-10	Soil	06/25/20 11:20	06-26-2020 09:20
S-6 @ 0.5'	0F26003-11	Soil	06/25/20 11:25	06-26-2020 09:20
S-6 @ 1'	0F26003-12	Soil	06/25/20 11:30	06-26-2020 09:20
S-7 @ 0.5'	0F26003-13	Soil	06/25/20 11:35	06-26-2020 09:20
S-7 @ 1'	0F26003-14	Soil	06/25/20 11:40	06-26-2020 09:20
S-8 @ 0.5'	0F26003-15	Soil	06/25/20 11:50	06-26-2020 09:20
S-8 @ 1'	0F26003-16	Soil	06/25/20 11:50	06-26-2020 09:20

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

S-1 @ 0.5'

0F26003-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00110	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*97.4 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*96.1 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**9720**	11.0	mg/kg dry	10	P0F2608	06/26/20	06/26/20	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P0F2606	06/26/20	06/26/20	TPH 8015M	
>C12-C28	**38.9**	27.5	mg/kg dry	1	P0F2606	06/26/20	06/26/20	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P0F2606	06/26/20	06/26/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*94.9 %*	*70-130*		*P0F2606*	*06/26/20*	*06/26/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*101 %*	*70-130*		*P0F2606*	*06/26/20*	*06/26/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**38.9**	27.5	mg/kg dry	1	[CALC]	06/26/20	06/26/20	calc	

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

S-1 @ 1'

0F26003-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*107 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*99.2 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**9530**	10.9	mg/kg dry	10	P0F2608	06/26/20	06/26/20	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P0F2606	06/26/20	06/26/20	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P0F2606	06/26/20	06/26/20	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P0F2606	06/26/20	06/26/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.7 %*	*70-130*		*P0F2606*	*06/26/20*	*06/26/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*103 %*	*70-130*		*P0F2606*	*06/26/20*	*06/26/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	06/26/20	06/26/20	calc	

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

S-2 @ 0.5'

0F26003-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00112	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*98.2 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*95.3 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**13400**	28.1	mg/kg dry	25	P0F2608	06/26/20	06/26/20	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P0F2606	06/26/20	06/26/20	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P0F2606	06/26/20	06/26/20	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P0F2606	06/26/20	06/26/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*99.3 %*	*70-130*		*P0F2606*	*06/26/20*	*06/26/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P0F2606*	*06/26/20*	*06/26/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	06/26/20	06/26/20	calc	

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

S-2 @ 1'

0F26003-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*92.0 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*96.2 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**8020**	10.9	mg/kg dry	10	P0F2608	06/26/20	06/27/20	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**45.1**	27.2	mg/kg dry	1	P0F2606	06/26/20	06/29/20	TPH 8015M	
>C12-C28	**60.8**	27.2	mg/kg dry	1	P0F2606	06/26/20	06/29/20	TPH 8015M	
>C28-C35	**71.7**	27.2	mg/kg dry	1	P0F2606	06/26/20	06/29/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*98.4 %*	*70-130*		*P0F2606*	*06/26/20*	*06/29/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*100 %*	*70-130*		*P0F2606*	*06/26/20*	*06/29/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**178**	27.2	mg/kg dry	1	[CALC]	06/26/20	06/29/20	calc	

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P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

S-3 @ 0.5'

0F26003-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*98.2 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*95.9 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**7500**	10.9	mg/kg dry	10	P0F2608	06/26/20	06/27/20	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**50.8**	27.2	mg/kg dry	1	P0F2606	06/26/20	06/29/20	TPH 8015M	
>C12-C28	**34.8**	27.2	mg/kg dry	1	P0F2606	06/26/20	06/29/20	TPH 8015M	
>C28-C35	**56.7**	27.2	mg/kg dry	1	P0F2606	06/26/20	06/29/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*96.6 %*	*70-130*		*P0F2606*	*06/26/20*	*06/29/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*98.1 %*	*70-130*		*P0F2606*	*06/26/20*	*06/29/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**142**	27.2	mg/kg dry	1	[CALC]	06/26/20	06/29/20	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

S-3 @ 1'

0F26003-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	07/01/20	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	07/01/20	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	07/01/20	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P0F2905	06/29/20	07/01/20	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P0F2905	06/29/20	07/01/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*95.5 %*	*75-125*		*P0F2905*	*06/29/20*	*07/01/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*95.8 %*	*75-125*		*P0F2905*	*06/29/20*	*07/01/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**7720**	10.9	mg/kg dry	10	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*107 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

S-4 @ 0.5'

0F26003-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00108	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*95.6 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*93.4 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**7960**	10.8	mg/kg dry	10	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*107 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

S-4 @ 1'

0F26003-08 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00108	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*94.0 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*95.8 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**9160**	10.8	mg/kg dry	10	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*105 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
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Midland TX, 79710	Project Manager: Mark Larson	

S-5 @ 0.5'

0F26003-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00100	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*101 %*	*75-125*		*P0F2905*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**63.5**	1.00	mg/kg dry	1	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*96.4 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*99.1 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
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Midland TX, 79710	Project Manager: Mark Larson	

S-5 @ 1'

0F26003-10 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*90.1 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*96.1 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**10.5**	1.00	mg/kg dry	1	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.0 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*102 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
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Midland TX, 79710	Project Manager: Mark Larson	

S-6 @ 0.5'

0F26003-11 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*96.1 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*93.0 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**47.7**	1.00	mg/kg dry	1	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.2 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*101 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

S-6 @ 1'

0F26003-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*89.3 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*97.0 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**46.7**	1.00	mg/kg dry	1	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.6 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*102 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
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Midland TX, 79710	Project Manager: Mark Larson	

S-7 @ 0.5'

0F26003-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*96.6 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*90.1 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**17.7**	1.00	mg/kg dry	1	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*92.0 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*95.9 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

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P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

S-7 @ 1'

0F26003-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*95.9 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*89.2 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**15.5**	1.00	mg/kg dry	1	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.8 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*101 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

S-8 @ 0.5'

0F26003-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00102	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*96.3 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*90.1 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**63.9**	1.02	mg/kg dry	1	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*99.0 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*106 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

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S-8 @ 1'

0F26003-16 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*96.1 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*92.1 %*	*75-125*		*P0F2907*	*06/29/20*	*06/30/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**29.5**	1.00	mg/kg dry	1	P0F2901	06/29/20	06/29/20	EPA 300.0	
% Moisture	ND	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*98.6 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*102 %*	*70-130*		*P0F2606*	*06/26/20*	*06/27/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	06/26/20	06/27/20	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2905 - General Preparation (GC)										
Blank (P0F2905-BLK1)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.107*		"	*0.120*		*89.3*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.112*		"	*0.120*		*93.6*	*75-125*			
LCS (P0F2905-BS1)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.0984	0.00100	mg/kg wet	0.100		98.4	70-130			
Toluene	0.0950	0.00100	"	0.100		95.0	70-130			
Ethylbenzene	0.103	0.00100	"	0.100		103	70-130			
Xylene (p/m)	0.197	0.00200	"	0.200		98.7	70-130			
Xylene (o)	0.103	0.00100	"	0.100		103	70-130			
Surrogate: 1,4-Difluorobenzene	*0.115*		"	*0.120*		*95.7*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.108*		"	*0.120*		*89.8*	*75-125*			
LCS Dup (P0F2905-BSD1)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.103	0.00100	mg/kg wet	0.100		103	70-130	4.53	20	
Toluene	0.102	0.00100	"	0.100		102	70-130	7.31	20	
Ethylbenzene	0.104	0.00100	"	0.100		104	70-130	0.543	20	
Xylene (p/m)	0.207	0.00200	"	0.200		104	70-130	4.85	20	
Xylene (o)	0.109	0.00100	"	0.100		109	70-130	5.50	20	
Surrogate: 1,4-Difluorobenzene	*0.116*		"	*0.120*		*96.4*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.104*		"	*0.120*		*86.4*	*75-125*			
Calibration Blank (P0F2905-CCB1)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.00		mg/kg wet							
Toluene	0.420		"							
Ethylbenzene	0.330		"							
Xylene (p/m)	0.530		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.104*		"	*0.120*		*87.0*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.112*		"	*0.120*		*93.7*	*75-125*			

Larson & Associates, Inc.
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Project Manager: Mark Larson

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BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2905 - General Preparation (GC)										
Calibration Blank (P0F2905-CCB2)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.00		mg/kg wet							
Toluene	0.770		"							
Ethylbenzene	0.620		"							
Xylene (p/m)	1.12		"							
Xylene (o)	0.470		"							
Surrogate: 4-Bromofluorobenzene	*0.110*		*"*	*0.120*		*92.0*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.113*		*"*	*0.120*		*93.8*	*75-125*			
Calibration Blank (P0F2905-CCB3)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.00		mg/kg wet							
Toluene	0.410		"							
Ethylbenzene	0.400		"							
Xylene (p/m)	1.03		"							
Xylene (o)	0.390		"							
Surrogate: 4-Bromofluorobenzene	*0.110*		*"*	*0.120*		*91.8*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.114*		*"*	*0.120*		*94.6*	*75-125*			
Calibration Check (P0F2905-CCV1)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.110	0.00100	mg/kg wet	0.100		110	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.210	0.00200	"	0.200		105	80-120			
Xylene (o)	0.113	0.00100	"	0.100		113	80-120			
Surrogate: 1,4-Difluorobenzene	*0.115*		*"*	*0.120*		*96.2*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.104*		*"*	*0.120*		*87.0*	*75-125*			
Calibration Check (P0F2905-CCV2)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.104	0.00100	mg/kg wet	0.100		104	80-120			
Toluene	0.101	0.00100	"	0.100		101	80-120			
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120			
Xylene (p/m)	0.197	0.00200	"	0.200		98.5	80-120			
Xylene (o)	0.109	0.00100	"	0.100		109	80-120			
Surrogate: 4-Bromofluorobenzene	*0.109*		*"*	*0.120*		*90.8*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.116*		*"*	*0.120*		*96.8*	*75-125*			

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Midland TX, 79710	Project Manager: Mark Larson	

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2905 - General Preparation (GC)										
Calibration Check (P0F2905-CCV3)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.0970	0.00100	"	0.100		97.0	80-120			
Ethylbenzene	0.0973	0.00100	"	0.100		97.3	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.6	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 4-Bromofluorobenzene	*0.109*		"	*0.120*		*90.5*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.116*		"	*0.120*		*96.5*	*75-125*			
Matrix Spike (P0F2905-MS1)		**Source: 0F26003-01**		Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.0778	0.00110	mg/kg dry	0.110	ND	70.8	80-120			QM-07
Toluene	0.0679	0.00110	"	0.110	ND	61.8	80-120			QM-07
Ethylbenzene	0.0606	0.00110	"	0.110	ND	55.2	80-120			QM-07
Xylene (p/m)	0.158	0.00220	"	0.220	ND	71.9	80-120			QM-07
Xylene (o)	0.0859	0.00110	"	0.110	ND	78.2	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	*0.127*		"	*0.132*		*96.4*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.120*		"	*0.132*		*91.0*	*75-125*			
Matrix Spike Dup (P0F2905-MSD1)		**Source: 0F26003-01**		Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.0898	0.00110	mg/kg dry	0.110	ND	81.7	80-120	14.2	20	
Toluene	0.0809	0.00110	"	0.110	ND	73.6	80-120	17.4	20	QM-07
Ethylbenzene	0.0733	0.00110	"	0.110	ND	66.7	80-120	19.0	20	QM-07
Xylene (p/m)	0.179	0.00220	"	0.220	ND	81.4	80-120	12.4	20	
Xylene (o)	0.0977	0.00110	"	0.110	ND	88.9	80-120	12.8	20	
Surrogate: 1,4-Difluorobenzene	*0.128*		"	*0.132*		*97.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.120*		"	*0.132*		*91.0*	*75-125*			
Batch P0F2907 - General Preparation (GC)										
Blank (P0F2907-BLK1)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.108*		"	*0.120*		*90.2*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.114*		"	*0.120*		*95.0*	*75-125*			

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BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2907 - General Preparation (GC)										
LCS (P0F2907-BS1)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.0999	0.00100	mg/kg wet	0.100		99.9	70-130			
Toluene	0.0957	0.00100	"	0.100		95.7	70-130			
Ethylbenzene	0.101	0.00100	"	0.100		101	70-130			
Xylene (p/m)	0.187	0.00200	"	0.200		93.3	70-130			
Xylene (o)	0.101	0.00100	"	0.100		101	70-130			
Surrogate: 1,4-Difluorobenzene	*0.116*		"	*0.120*		*96.7*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.105*		"	*0.120*		*87.8*	*75-125*			
LCS Dup (P0F2907-BSD1)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.0974	0.00100	mg/kg wet	0.100		97.4	70-130	2.57	20	
Toluene	0.0946	0.00100	"	0.100		94.6	70-130	1.12	20	
Ethylbenzene	0.103	0.00100	"	0.100		103	70-130	1.85	20	
Xylene (p/m)	0.188	0.00200	"	0.200		94.2	70-130	1.00	20	
Xylene (o)	0.102	0.00100	"	0.100		102	70-130	0.895	20	
Surrogate: 4-Bromofluorobenzene	*0.110*		"	*0.120*		*91.3*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.116*		"	*0.120*		*96.4*	*75-125*			
Calibration Blank (P0F2907-CCB1)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.00		mg/kg wet							
Toluene	0.410		"							
Ethylbenzene	0.400		"							
Xylene (p/m)	1.03		"							
Xylene (o)	0.390		"							
Surrogate: 1,4-Difluorobenzene	*0.114*		"	*0.120*		*94.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.110*		"	*0.120*		*91.8*	*75-125*			
Calibration Blank (P0F2907-CCB2)				Prepared: 06/29/20 Analyzed: 07/01/20						
Benzene	0.00		mg/kg wet							
Toluene	0.380		"							
Ethylbenzene	0.360		"							
Xylene (p/m)	0.710		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	*0.112*		"	*0.120*		*93.2*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.109*		"	*0.120*		*90.8*	*75-125*			

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2907 - General Preparation (GC)										
Calibration Blank (P0F2907-CCB3)				Prepared: 06/29/20 Analyzed: 07/01/20						
Benzene	0.00		mg/kg wet							
Toluene	0.540		"							
Ethylbenzene	0.340		"							
Xylene (p/m)	1.15		"							
Xylene (o)	0.340		"							
Surrogate: 4-Bromofluorobenzene	*0.113*		*"*	*0.120*		*93.8*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.111*		*"*	*0.120*		*92.3*	*75-125*			
Calibration Check (P0F2907-CCV1)				Prepared: 06/29/20 Analyzed: 06/30/20						
Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.0970	0.00100	"	0.100		97.0	80-120			
Ethylbenzene	0.0973	0.00100	"	0.100		97.3	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.6	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 1,4-Difluorobenzene	*0.116*		*"*	*0.120*		*96.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.109*		*"*	*0.120*		*90.5*	*75-125*			
Calibration Check (P0F2907-CCV2)				Prepared: 06/29/20 Analyzed: 07/01/20						
Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.0966	0.00100	"	0.100		96.6	80-120			
Ethylbenzene	0.0972	0.00100	"	0.100		97.2	80-120			
Xylene (p/m)	0.187	0.00200	"	0.200		93.5	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 1,4-Difluorobenzene	*0.115*		*"*	*0.120*		*95.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.111*		*"*	*0.120*		*92.1*	*75-125*			
Calibration Check (P0F2907-CCV3)				Prepared: 06/29/20 Analyzed: 07/01/20						
Benzene	0.105	0.00100	mg/kg wet	0.100		105	80-120			
Toluene	0.108	0.00100	"	0.100		108	80-120			
Ethylbenzene	0.107	0.00100	"	0.100		107	80-120			
Xylene (p/m)	0.212	0.00200	"	0.200		106	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 4-Bromofluorobenzene	*0.117*		*"*	*0.120*		*97.8*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.112*		*"*	*0.120*		*93.2*	*75-125*			

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2907 - General Preparation (GC)										
Matrix Spike (P0F2907-MS1)	**Source: 0F26003-10**			Prepared: 06/29/20 Analyzed: 07/01/20						
Benzene	0.0850	0.00100	mg/kg dry	0.100	ND	85.0	80-120			
Toluene	0.0759	0.00100	"	0.100	ND	75.9	80-120			QM-07
Ethylbenzene	0.0379	0.00100	"	0.100	ND	37.9	80-120			QM-07
Xylene (p/m)	0.0868	0.00200	"	0.200	ND	43.4	80-120			QM-07
Xylene (o)	0.0419	0.00100	"	0.100	ND	41.9	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	*0.0781*		*"*	*0.120*		*65.1*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.116*		*"*	*0.120*		*96.9*	*75-125*			
Matrix Spike Dup (P0F2907-MSD1)	**Source: 0F26003-10**			Prepared: 06/29/20 Analyzed: 07/01/20						
Benzene	0.106	0.00100	mg/kg dry	0.100	ND	106	80-120	21.5	20	QM-07
Toluene	0.0972	0.00100	"	0.100	ND	97.2	80-120	24.6	20	QM-07
Ethylbenzene	0.0815	0.00100	"	0.100	ND	81.5	80-120	73.1	20	QM-07
Xylene (p/m)	0.128	0.00200	"	0.200	ND	63.9	80-120	38.2	20	QM-07
Xylene (o)	0.0669	0.00100	"	0.100	ND	66.9	80-120	46.0	20	QM-07
Surrogate: 4-Bromofluorobenzene	*0.0942*		*"*	*0.120*		*78.5*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.123*		*"*	*0.120*		*103*	*75-125*			

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Dagger Lake Pit
Project Number: 20-0100-05
Project Manager: Mark Larson

Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2608 - * DEFAULT PREP *** **										
Blank (P0F2608-BLK1)				Prepared & Analyzed: 06/26/20						
Chloride	ND	1.00	mg/kg wet							
LCS (P0F2608-BS1)				Prepared & Analyzed: 06/26/20						
Chloride	391	1.00	mg/kg wet	400		97.8	80-120			
LCS Dup (P0F2608-BSD1)				Prepared & Analyzed: 06/26/20						
Chloride	391	1.00	mg/kg wet	400		97.7	80-120	0.118	20	
Calibration Blank (P0F2608-CCB2)				Prepared & Analyzed: 06/26/20						
Chloride	0.00		mg/kg wet							
Calibration Check (P0F2608-CCV1)				Prepared & Analyzed: 06/26/20						
Chloride	19.0		mg/kg	20.0		95.2	0-200			
Calibration Check (P0F2608-CCV2)				Prepared & Analyzed: 06/26/20						
Chloride	19.2		mg/kg	20.0		95.8	0-200			
Calibration Check (P0F2608-CCV3)				Prepared: 06/26/20 Analyzed: 06/27/20						
Chloride	21.0		mg/kg	20.0		105	0-200			
Matrix Spike (P0F2608-MS1)		**Source: 0F24014-02**		Prepared & Analyzed: 06/26/20						
Chloride	14300	27.2	mg/kg dry	2720	11100	117	80-120			
Matrix Spike (P0F2608-MS2)		**Source: 0F25004-10**		Prepared & Analyzed: 06/26/20						
Chloride	551	1.12	mg/kg dry	562	36.5	91.6	80-120			
Matrix Spike Dup (P0F2608-MSD1)		**Source: 0F24014-02**		Prepared & Analyzed: 06/26/20						
Chloride	13900	27.2	mg/kg dry	2720	11100	102	80-120	3.06	20	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Dagger Lake Pit
Project Number: 20-0100-05
Project Manager: Mark Larson

Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2608 - * DEFAULT PREP *** **										
Matrix Spike Dup (P0F2608-MSD2)	**Source: 0F25004-10**			Prepared & Analyzed: 06/26/20						
Chloride	559	1.12	mg/kg dry	562	36.5	93.0	80-120	1.34	20	
Batch P0F2701 - * DEFAULT PREP *** **										
Blank (P0F2701-BLK1)				Prepared: 06/27/20 Analyzed: 06/29/20						
% Moisture	ND	0.1	%							
Duplicate (P0F2701-DUP1)	**Source: 0F26003-14**			Prepared: 06/27/20 Analyzed: 06/29/20						
% Moisture	ND	0.1	%		ND				20	
Duplicate (P0F2701-DUP2)	**Source: 0F26010-11**			Prepared: 06/27/20 Analyzed: 06/29/20						
% Moisture	6.0	0.1	%		6.0			0.00	20	
Duplicate (P0F2701-DUP3)	**Source: 0F26010-38**			Prepared: 06/27/20 Analyzed: 06/29/20						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P0F2701-DUP4)	**Source: 0F26015-11**			Prepared: 06/27/20 Analyzed: 06/29/20						
% Moisture	ND	0.1	%		ND				20	
Batch P0F2901 - * DEFAULT PREP *** **										
LCS (P0F2901-BS1)				Prepared & Analyzed: 06/29/20						
Chloride	408	1.00	mg/kg wet	400		102	80-120			
LCS Dup (P0F2901-BSD1)				Prepared & Analyzed: 06/29/20						
Chloride	407	1.00	mg/kg wet	400		102	80-120	0.260	20	

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2901 - * DEFAULT PREP *** **										
Calibration Blank (P0F2901-CCB2)				Prepared & Analyzed: 06/29/20						
Chloride	0.00		mg/kg wet							
Calibration Check (P0F2901-CCV1)				Prepared & Analyzed: 06/29/20						
Chloride	19.7		mg/kg	20.0		98.6	0-200			
Calibration Check (P0F2901-CCV2)				Prepared & Analyzed: 06/29/20						
Chloride	19.9		mg/kg	20.0		99.3	0-200			
Matrix Spike (P0F2901-MS1)		**Source: 0F26003-06**		Prepared & Analyzed: 06/29/20						
Chloride	8900	10.9	mg/kg dry	1090	7720	108	80-120			
Matrix Spike (P0F2901-MS2)		**Source: 0F26003-16**		Prepared & Analyzed: 06/29/20						
Chloride	516	1.00	mg/kg dry		29.5		80-120			QM-05
Matrix Spike Dup (P0F2901-MSD1)		**Source: 0F26003-06**		Prepared & Analyzed: 06/29/20						
Chloride	8990	10.9	mg/kg dry	1090	7720	117	80-120	1.07	20	
Matrix Spike Dup (P0F2901-MSD2)		**Source: 0F26003-16**		Prepared & Analyzed: 06/29/20						
Chloride	485	1.00	mg/kg dry		29.5		80-120	6.12	20	QM-05

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Dagger Lake Pit
Project Number: 20-0100-05
Project Manager: Mark Larson

Fax: (432) 687-0456

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2606 - TX 1005										
Blank (P0F2606-BLK1)				Prepared & Analyzed: 06/26/20						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*125*		*"*	*100*		*125*	*70-130*			
Surrogate: o-Terphenyl	*61.6*		*"*	*50.0*		*123*	*70-130*			
LCS (P0F2606-BS1)				Prepared & Analyzed: 06/26/20						
C6-C12	946	25.0	mg/kg wet	1000		94.6	75-125			
>C12-C28	1100	25.0	"	1000		110	75-125			
Surrogate: 1-Chlorooctane	*113*		*"*	*100*		*113*	*70-130*			
Surrogate: o-Terphenyl	*55.9*		*"*	*50.0*		*112*	*70-130*			
LCS Dup (P0F2606-BSD1)				Prepared & Analyzed: 06/26/20						
C6-C12	998	25.0	mg/kg wet	1000		99.8	75-125	5.30	20	
>C12-C28	1140	25.0	"	1000		114	75-125	3.70	20	
Surrogate: 1-Chlorooctane	*116*		*"*	*100*		*116*	*70-130*			
Surrogate: o-Terphenyl	*57.0*		*"*	*50.0*		*114*	*70-130*			
Calibration Check (P0F2606-CCV1)				Prepared & Analyzed: 06/26/20						
C6-C12	480	25.0	mg/kg wet	500		96.0	85-115			
>C12-C28	492	25.0	"	500		98.3	85-115			
Surrogate: 1-Chlorooctane	*118*		*"*	*100*		*118*	*70-130*			
Surrogate: o-Terphenyl	*57.7*		*"*	*50.0*		*115*	*70-130*			
Calibration Check (P0F2606-CCV2)				Prepared: 06/26/20 Analyzed: 06/27/20						
C6-C12	480	25.0	mg/kg wet	500		95.9	85-115			
>C12-C28	572	25.0	"	500		114	85-115			
Surrogate: 1-Chlorooctane	*121*		*"*	*100*		*121*	*70-130*			
Surrogate: o-Terphenyl	*59.8*		*"*	*50.0*		*120*	*70-130*			

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0F2606 - TX 1005										
Matrix Spike (P0F2606-MS1)	**Source: 0F26003-16**			Prepared: 06/26/20 Analyzed: 06/27/20						
C6-C12	1080	25.0	mg/kg dry	1000	10.9	107	75-125			
>C12-C28	1150	25.0	"	1000	ND	115	75-125			
Surrogate: 1-Chlorooctane	*128*		*"*	*100*		*128*	*70-130*			
Surrogate: o-Terphenyl	*63.7*		*"*	*50.0*		*127*	*70-130*			
Matrix Spike Dup (P0F2606-MSD1)	**Source: 0F26003-16**			Prepared: 06/26/20 Analyzed: 06/27/20						
C6-C12	1060	25.0	mg/kg dry	1000	10.9	105	75-125	2.25	20	
>C12-C28	1170	25.0	"	1000	ND	117	75-125	1.86	20	
Surrogate: 1-Chlorooctane	*124*		*"*	*100*		*124*	*70-130*			
Surrogate: o-Terphenyl	*61.7*		*"*	*50.0*		*123*	*70-130*			

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ROI	Received on Ice
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 7/5/2020

Brent Barron, Laboratory Director/Technical Director

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

№ 1180

CHAIN-OF-CUSTODY

Page 32 of 33

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 6/25/20 PAGE 1 OF 2
PO#: LAB WORK ORDER#: 0F26003
PROJECT LOCATION OR NAME: DAGGER LAKE PIT
LAI PROJECT #: 20-0100-05 COLLECTOR: DS

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESSERVED

ANALYSES: BTEX ☒ MTBE ☐; TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐; GASOLINE MOD 8015 ☒; DIESEL - MOD 8015 ☒; OIL - MOD 8015 ☒; VOC 8260 ☐; SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐; 8081 PESTICIDES ☐ 8151 HERBICIDES ☐; 8082 PCBS ☐; TBLP - METALS (RCRA) ☐ TCLP VOC ☐; TCLP - PEST ☐ HERB ☐ Semi-VOC ☐; TOTAL METALS (RCRA) ☐ OTHER LIST ☐; LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐; RCI ☐ TOX ☐ FLASHPOINT ☐; TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐; pH ☐ HEXAVALENT CHROMIUM ☐; EXPLOSIVES ☐ PECHLORATE ☐; CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 / NaOH	ICE	UNPRESSERVED	BTEX	TRPH 418.1	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	CHLORIDE	FIELD NOTES
S-1 (0.5)	1	6/25/20	1030	S	1				X		X		X	X	X	X	
S-1 (1)	2		1035														
S-2 (0.5)	3		1037														
S-2 (1)	4		1040														
S-3 (0.5)	5		1045														
S-3 (1)	6		1047														
S-4 (0.5)	7		1105														
S-4 (1)	8		1110														
S-5 (0.5)	9		1115														
S-5 (1)	10		1120														
S-6 (0.5)	11		1125														
S-6 (1)	12		1130														
S-7 (0.5)	13		1135														
S-7 (1)	14		1140														
S-8 (0.5)	15		1150														
TOTAL	15																

RELINQUISHED BY:(Signature) Brenda Ballino DATE/TIME 6/26 9:20 RECEIVED BY: (Signature) [signature]
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
LABORATORY: PBEL

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: -2.2-1.2 THERM#: CF+1 C2
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

№ 1181

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 6/25/20 PAGE 2 OF 2

PO#: _____ LAB WORK ORDER#: OF26003

PROJECT LOCATION OR NAME: DAGGER LAKE PIT

LAI PROJECT #: 20-0100-05 COLLECTOR: DS

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TBLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-8 (1')	16	6/25/20	1150	S	1				X		X		X	X	X														X	

TOTAL 1

RELINQUISHED BY:(Signature) Brenda Ballio DATE/TIME 6/26 9:20 RECEIVED BY:(Signature) Trina Bledsoe

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY: PBEL

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: -2-1.2 THERM#: CF+1 12
CUSTODY SEALS ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: Dagger Lake Pit
Project Number: 20-0100-05
Location: NM

Lab Order Number: 0H31003

NELAP ACCREDITED TNI LABORATORY

Current Certification

Report Date: 09/03/20

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Dagger Lake Pit
Project Number: 20-0100-05
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1 @ 1'	0H31003-01	Soil	08/28/20 10:37	08-31-2020 10:10
S-1 @ 3'	0H31003-02	Soil	08/28/20 10:40	08-31-2020 10:10
S-1 @ 5'	0H31003-03	Soil	08/28/20 10:42	08-31-2020 10:10
S-2 @ 1'	0H31003-05	Soil	08/28/20 11:15	08-31-2020 10:10
S-2 @ 3'	0H31003-06	Soil	08/28/20 11:17	08-31-2020 10:10
S-3 @ 1'	0H31003-09	Soil	08/28/20 12:10	08-31-2020 10:10
S-4 @ 1'	0H31003-13	Soil	08/28/20 12:40	08-31-2020 10:10
S-4 @ 3'	0H31003-14	Soil	08/28/20 12:42	08-31-2020 10:10
S-9 @ 1'	0H31003-17	Soil	08/28/20 11:00	08-31-2020 10:10
S-10 @ 1'	0H31003-21	Soil	08/28/20 11:30	08-31-2020 10:10
S-11 @ 1'	0H31003-25	Soil	08/28/20 12:20	08-31-2020 10:10
S-12 @ 1'	0H31003-29	Soil	08/28/20 12:55	08-31-2020 10:10

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

S-1 @ 1'

0H31003-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:22	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:22	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:22	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:22	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:22	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*98.1 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 08:22*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*86.2 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 08:22*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**7970**	10.8	mg/kg dry	10	P0H3108	08/31/20 16:24	08/31/20 18:14	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 16:50	TPH 8015M	
>C12-C28	**43.8**	26.9	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 16:50	TPH 8015M	
>C28-C35	**108**	26.9	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 16:50	TPH 8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 16:50*	*TPH 8015M*	
Surrogate: o-Terphenyl		*110 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 16:50*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**152**	26.9	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 16:50	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

S-1 @ 3'

0H31003-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*88.9 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 08:42*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*87.9 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 08:42*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**702**	1.08	mg/kg dry	1	P0H3108	08/31/20 16:24	08/31/20 19:01	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:14	TPH 8015M	
>C12-C28	**50.6**	26.9	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:14	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:14	TPH 8015M	
Surrogate: 1-Chlorooctane		*112 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 17:14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 17:14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**50.6**	26.9	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 17:14	calc	

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S-1 @ 5'

0H31003-03 (Soil)

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	**50.1**	1.04	mg/kg dry	1	P0H3108	08/31/20 16:24	08/31/20 19:16	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	

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S-2 @ 1'

0H31003-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:02	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:02	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:02	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:02	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:02	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*86.9 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 09:02*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*91.7 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 09:02*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**7250**	10.8	mg/kg dry	10	P0H3108	08/31/20 16:24	09/01/20 08:40	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:37	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:37	TPH 8015M	
>C28-C35	**91.5**	26.9	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:37	TPH 8015M	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 17:37*	*TPH 8015M*	
Surrogate: o-Terphenyl		*124 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 17:37*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**91.5**	26.9	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 17:37	calc	

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S-2 @ 3'

0H31003-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00111	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:23	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:23	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:23	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:23	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:23	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*86.8 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 09:23*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*89.9 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 09:23*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**364**	1.11	mg/kg dry	1	P0H3108	08/31/20 16:24	08/31/20 20:03	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 18:00	TPH 8015M	
>C12-C28	**31.6**	27.8	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 18:00	TPH 8015M	
>C28-C35	**50.9**	27.8	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 18:00	TPH 8015M	
Surrogate: 1-Chlorooctane		*120 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 18:00*	*TPH 8015M*	
Surrogate: o-Terphenyl		*125 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 18:00*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**82.6**	27.8	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 18:00	calc	

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S-3 @ 1'

0H31003-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00105	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:43	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:43	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:43	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:43	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:43	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*86.4 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 09:43*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*93.0 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 09:43*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**577**	1.05	mg/kg dry	1	P0H3108	08/31/20 16:24	08/31/20 20:49	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 18:24	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 18:24	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 18:24	TPH 8015M	
Surrogate: 1-Chlorooctane		*130 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 18:24*	*TPH 8015M*	
Surrogate: o-Terphenyl		*144 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 18:24*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 18:24	calc	

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S-4 @ 1'

0H31003-13 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00103	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*85.0 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 10:24*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*93.7 %*	*75-125*		*P0H3119*	*08/31/20 15:57*	*09/01/20 10:24*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1630**	1.03	mg/kg dry	1	P0H3108	08/31/20 16:24	08/31/20 22:54	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 19:33	TPH 8015M	
>C12-C28	**78.2**	25.8	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 19:33	TPH 8015M	
>C28-C35	**31.3**	25.8	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 19:33	TPH 8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 19:33*	*TPH 8015M*	
Surrogate: o-Terphenyl		*112 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 19:33*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**109**	25.8	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 19:33	calc	

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S-4 @ 3'

0H31003-14 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00104	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*92.0 %*	*75-125*		*P0I0106*	*09/01/20 12:23*	*09/01/20 16:48*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*85.8 %*	*75-125*		*P0I0106*	*09/01/20 12:23*	*09/01/20 16:48*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**9.48**	1.04	mg/kg dry	1	P0H3108	08/31/20 16:24	08/31/20 23:09	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 20:43	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 20:43	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 20:43	TPH 8015M	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 20:43*	*TPH 8015M*	
Surrogate: o-Terphenyl		*110 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 20:43*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 20:43	calc	

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S-9 @ 1'

0H31003-17 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00109	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*92.5 %*	*75-125*		*P0I0106*	*09/01/20 12:23*	*09/01/20 17:09*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.1 %*	*75-125*		*P0I0106*	*09/01/20 12:23*	*09/01/20 17:09*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**75.8**	1.09	mg/kg dry	1	P0H3108	08/31/20 16:24	08/31/20 23:56	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:06	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:06	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:06	TPH 8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 21:06*	*TPH 8015M*	
Surrogate: o-Terphenyl		*109 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 21:06*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 21:06	calc	

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P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

S-10 @ 1'

0H31003-21 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00103	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:50	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:50	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:50	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:50	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:50	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*87.3 %*	*75-125*		*P0I0106*	*09/01/20 12:23*	*09/01/20 17:50*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*91.3 %*	*75-125*		*P0I0106*	*09/01/20 12:23*	*09/01/20 17:50*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**28.7**	1.03	mg/kg dry	1	P0I0103	09/01/20 09:16	09/01/20 11:09	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:52	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:52	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:52	TPH 8015M	
Surrogate: 1-Chlorooctane		*98.2 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 21:52*	*TPH 8015M*	
Surrogate: o-Terphenyl		*105 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 21:52*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 21:52	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

S-11 @ 1'

0H31003-25 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00102	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*87.1 %*	*75-125*		*P0I0106*	*09/01/20 12:23*	*09/01/20 18:31*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*90.4 %*	*75-125*		*P0I0106*	*09/01/20 12:23*	*09/01/20 18:31*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**456**	1.02	mg/kg dry	1	P0I0103	09/01/20 09:16	09/01/20 12:42	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 22:38	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 22:38	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 22:38	TPH 8015M	
Surrogate: 1-Chlorooctane		*107 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 22:38*	*TPH 8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 22:38*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 22:38	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

S-12 @ 1'

0H31003-29 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00102	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 19:11	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 19:11	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 19:11	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 19:11	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 19:11	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*89.1 %*	*75-125*		*P0I0106*	*09/01/20 12:23*	*09/01/20 19:11*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.2 %*	*75-125*		*P0I0106*	*09/01/20 12:23*	*09/01/20 19:11*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**36.7**	1.02	mg/kg dry	1	P0I0103	09/01/20 09:16	09/01/20 13:44	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 23:24	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 23:24	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 23:24	TPH 8015M	
Surrogate: 1-Chlorooctane		*107 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 23:24*	*TPH 8015M*	
Surrogate: o-Terphenyl		*114 %*	*70-130*		*P0H3113*	*08/31/20 13:30*	*08/31/20 23:24*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 23:24	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Dagger Lake Pit
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Project Manager: Mark Larson

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BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H3119 - General Preparation (GC)										
Blank (P0H3119-BLK1)				Prepared: 08/31/20 Analyzed: 09/01/20						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.105*		"	*0.120*		*87.2*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.104*		"	*0.120*		*86.3*	*75-125*			
LCS (P0H3119-BS1)				Prepared: 08/31/20 Analyzed: 09/01/20						
Benzene	0.105	0.00100	mg/kg wet	0.100		105	70-130			
Toluene	0.0966	0.00100	"	0.100		96.6	70-130			
Ethylbenzene	0.100	0.00100	"	0.100		100	70-130			
Xylene (p/m)	0.202	0.00200	"	0.200		101	70-130			
Xylene (o)	0.103	0.00100	"	0.100		103	70-130			
Surrogate: 4-Bromofluorobenzene	*0.109*		"	*0.120*		*90.8*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.106*		"	*0.120*		*88.0*	*75-125*			
LCS Dup (P0H3119-BSD1)				Prepared: 08/31/20 Analyzed: 09/01/20						
Benzene	0.0923	0.00100	mg/kg wet	0.100		92.3	70-130	12.5	20	
Toluene	0.0894	0.00100	"	0.100		89.4	70-130	7.80	20	
Ethylbenzene	0.0948	0.00100	"	0.100		94.8	70-130	5.35	20	
Xylene (p/m)	0.182	0.00200	"	0.200		91.2	70-130	10.3	20	
Xylene (o)	0.0920	0.00100	"	0.100		92.0	70-130	11.2	20	
Surrogate: 4-Bromofluorobenzene	*0.106*		"	*0.120*		*88.2*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.108*		"	*0.120*		*90.1*	*75-125*			
Calibration Blank (P0H3119-CCB1)				Prepared: 08/31/20 Analyzed: 09/01/20						
Benzene	0.00		mg/kg wet							
Toluene	0.700		"							
Ethylbenzene	0.620		"							
Xylene (p/m)	1.34		"							
Xylene (o)	0.470		"							
Surrogate: 1,4-Difluorobenzene	*0.101*		"	*0.120*		*84.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.107*		"	*0.120*		*89.4*	*75-125*			

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BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H3119 - General Preparation (GC)										
Calibration Blank (P0H3119-CCB2)				Prepared: 08/31/20 Analyzed: 09/01/20						
Benzene	0.00		mg/kg wet							
Toluene	0.880		"							
Ethylbenzene	0.380		"							
Xylene (p/m)	0.730		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	*0.104*		"	*0.120*		*86.3*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.105*		"	*0.120*		*87.7*	*75-125*			
Calibration Check (P0H3119-CCV1)				Prepared: 08/31/20 Analyzed: 09/01/20						
Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.0941	0.00100	"	0.100		94.1	80-120			
Ethylbenzene	0.0954	0.00100	"	0.100		95.4	80-120			
Xylene (p/m)	0.187	0.00200	"	0.200		93.6	80-120			
Xylene (o)	0.100	0.00100	"	0.100		100	80-120			
Surrogate: 4-Bromofluorobenzene	*0.103*		"	*0.120*		*85.8*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.106*		"	*0.120*		*88.4*	*75-125*			
Calibration Check (P0H3119-CCV2)				Prepared: 08/31/20 Analyzed: 09/01/20						
Benzene	0.0992	0.00100	mg/kg wet	0.100		99.2	80-120			
Toluene	0.0928	0.00100	"	0.100		92.8	80-120			
Ethylbenzene	0.0938	0.00100	"	0.100		93.8	80-120			
Xylene (p/m)	0.183	0.00200	"	0.200		91.6	80-120			
Xylene (o)	0.0955	0.00100	"	0.100		95.5	80-120			
Surrogate: 1,4-Difluorobenzene	*0.107*		"	*0.120*		*88.8*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.103*		"	*0.120*		*85.8*	*75-125*			
Calibration Check (P0H3119-CCV3)				Prepared: 08/31/20 Analyzed: 09/01/20						
Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.0914	0.00100	"	0.100		91.4	80-120			
Ethylbenzene	0.0926	0.00100	"	0.100		92.6	80-120			
Xylene (p/m)	0.183	0.00200	"	0.200		91.3	80-120			
Xylene (o)	0.0963	0.00100	"	0.100		96.3	80-120			
Surrogate: 4-Bromofluorobenzene	*0.105*		"	*0.120*		*87.2*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.105*		"	*0.120*		*87.6*	*75-125*			

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BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H3119 - General Preparation (GC)										
Matrix Spike (P0H3119-MS1)	**Source: 0H31009-21**			Prepared: 08/31/20 Analyzed: 09/01/20						
Benzene	0.0601	0.00104	mg/kg dry	0.104	ND	57.7	80-120			QM-07
Toluene	0.0452	0.00104	"	0.104	0.00165	41.8	80-120			QM-07
Ethylbenzene	0.0440	0.00104	"	0.104	ND	42.2	80-120			QM-07
Xylene (p/m)	0.0734	0.00208	"	0.208	ND	35.2	80-120			QM-07
Xylene (o)	0.0306	0.00104	"	0.104	ND	29.4	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	*0.119*		"	*0.125*		*94.8*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.115*		"	*0.125*		*91.9*	*75-125*			
Matrix Spike Dup (P0H3119-MSD1)	**Source: 0H31009-21**			Prepared: 08/31/20 Analyzed: 09/01/20						
Benzene	0.0549	0.00104	mg/kg dry	0.104	ND	52.7	80-120	8.97	20	QM-07
Toluene	0.0401	0.00104	"	0.104	0.00165	36.9	80-120	12.4	20	QM-07
Ethylbenzene	0.0360	0.00104	"	0.104	ND	34.5	80-120	20.0	20	QM-07
Xylene (p/m)	0.0595	0.00208	"	0.208	ND	28.5	80-120	20.9	20	QM-07
Xylene (o)	0.0238	0.00104	"	0.104	ND	22.9	80-120	24.9	20	QM-07
Surrogate: 4-Bromofluorobenzene	*0.111*		"	*0.125*		*88.6*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.120*		"	*0.125*		*95.7*	*75-125*			
Batch P0I0106 - General Preparation (GC)										
Blank (P0I0106-BLK1)				Prepared & Analyzed: 09/01/20						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*0.101*		"	*0.120*		*84.2*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.103*		"	*0.120*		*86.0*	*75-125*			

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Project Manager: Mark Larson

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BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0I0106 - General Preparation (GC)										
LCS (P0I0106-BS1)				Prepared & Analyzed: 09/01/20						
Benzene	0.101	0.00100	mg/kg wet	0.100		101	70-130			
Toluene	0.0976	0.00100	"	0.100		97.6	70-130			
Ethylbenzene	0.105	0.00100	"	0.100		105	70-130			
Xylene (p/m)	0.199	0.00200	"	0.200		99.3	70-130			
Xylene (o)	0.0991	0.00100	"	0.100		99.1	70-130			
Surrogate: 1,4-Difluorobenzene	*0.106*		*"*	*0.120*		*88.2*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.102*		*"*	*0.120*		*85.3*	*75-125*			
LCS Dup (P0I0106-BSD1)				Prepared & Analyzed: 09/01/20						
Benzene	0.0934	0.00100	mg/kg wet	0.100		93.4	70-130	7.90	20	
Toluene	0.0875	0.00100	"	0.100		87.5	70-130	10.9	20	
Ethylbenzene	0.0937	0.00100	"	0.100		93.7	70-130	11.6	20	
Xylene (p/m)	0.179	0.00200	"	0.200		89.4	70-130	10.5	20	
Xylene (o)	0.0878	0.00100	"	0.100		87.8	70-130	12.1	20	
Surrogate: 1,4-Difluorobenzene	*0.106*		*"*	*0.120*		*88.3*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0997*		*"*	*0.120*		*83.1*	*75-125*			
Calibration Blank (P0I0106-CCB1)				Prepared & Analyzed: 09/01/20						
Benzene	0.00		mg/kg wet							
Toluene	0.700		"							
Ethylbenzene	0.410		"							
Xylene (p/m)	0.770		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.104*		*"*	*0.120*		*86.8*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.101*		*"*	*0.120*		*84.3*	*75-125*			
Calibration Blank (P0I0106-CCB2)				Prepared & Analyzed: 09/01/20						
Benzene	0.00		mg/kg wet							
Toluene	0.590		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.480		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	*0.103*		*"*	*0.120*		*85.8*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.102*		*"*	*0.120*		*85.1*	*75-125*			

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Project Number: 20-0100-05
Project Manager: Mark Larson

Fax: (432) 687-0456

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0I0106 - General Preparation (GC)										
Calibration Check (P0I0106-CCV1)				Prepared & Analyzed: 09/01/20						
Benzene	0.0915	0.00100	mg/kg wet	0.100		91.5	80-120			
Toluene	0.0827	0.00100	"	0.100		82.7	80-120			
Ethylbenzene	0.0869	0.00100	"	0.100		86.9	80-120			
Xylene (p/m)	0.178	0.00200	"	0.200		88.8	80-120			
Xylene (o)	0.0913	0.00100	"	0.100		91.3	80-120			
Surrogate: 4-Bromofluorobenzene	*0.108*		"	*0.120*		*89.9*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.103*		"	*0.120*		*85.9*	*75-125*			
Calibration Check (P0I0106-CCV2)				Prepared & Analyzed: 09/01/20						
Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.0946	0.00100	"	0.100		94.6	80-120			
Ethylbenzene	0.0970	0.00100	"	0.100		97.0	80-120			
Xylene (p/m)	0.190	0.00200	"	0.200		94.9	80-120			
Xylene (o)	0.0986	0.00100	"	0.100		98.6	80-120			
Surrogate: 1,4-Difluorobenzene	*0.108*		"	*0.120*		*89.7*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.104*		"	*0.120*		*86.7*	*75-125*			
Calibration Check (P0I0106-CCV3)				Prepared: 09/01/20 Analyzed: 09/02/20						
Benzene	0.0973	0.00100	mg/kg wet	0.100		97.3	80-120			
Toluene	0.0976	0.00100	"	0.100		97.6	80-120			
Ethylbenzene	0.101	0.00100	"	0.100		101	80-120			
Xylene (p/m)	0.196	0.00200	"	0.200		97.8	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 4-Bromofluorobenzene	*0.109*		"	*0.120*		*90.7*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.106*		"	*0.120*		*88.2*	*75-125*			
Matrix Spike (P0I0106-MS1)	**Source: 0I01007-01**			Prepared & Analyzed: 09/01/20						
Benzene	0.0681	0.00110	mg/kg dry	0.110	ND	62.0	80-120			QM-07
Toluene	0.0473	0.00110	"	0.110	0.00110	42.0	80-120			QM-07
Ethylbenzene	0.0508	0.00110	"	0.110	0.00590	40.9	80-120			QM-07
Xylene (p/m)	0.105	0.00220	"	0.220	0.0345	32.3	80-120			QM-07
Xylene (o)	0.0502	0.00110	"	0.110	0.0119	34.8	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	*0.112*		"	*0.132*		*85.2*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.121*		"	*0.132*		*91.7*	*75-125*			

Larson & Associates, Inc.	Project: Dagger Lake Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0100-05	
Midland TX, 79710	Project Manager: Mark Larson	

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0I0106 - General Preparation (GC)										
Matrix Spike Dup (P0I0106-MSD1)	**Source: 0I01007-01**			Prepared: 09/01/20 Analyzed: 09/02/20						
Benzene	0.0710	0.00110	mg/kg dry	0.110	ND	64.7	80-120	4.23	20	QM-07
Toluene	0.0453	0.00110	"	0.110	0.00110	40.2	80-120	4.28	20	QM-07
Ethylbenzene	0.0501	0.00110	"	0.110	0.00590	40.2	80-120	1.58	20	QM-07
Xylene (p/m)	0.102	0.00220	"	0.220	0.0345	30.7	80-120	5.07	20	QM-07
Xylene (o)	0.0480	0.00110	"	0.110	0.0119	32.8	80-120	5.86	20	QM-07
Surrogate: 4-Bromofluorobenzene	*0.114*		*"*	*0.132*		*86.1*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.124*		*"*	*0.132*		*94.2*	*75-125*			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H3108 - * DEFAULT PREP *** **										
Blank (P0H3108-BLK1)				Prepared & Analyzed: 08/31/20						
Chloride	ND	1.00	mg/kg wet							
LCS (P0H3108-BS1)				Prepared & Analyzed: 08/31/20						
Chloride	405	1.00	mg/kg wet	400		101	80-120			
LCS Dup (P0H3108-BSD1)				Prepared & Analyzed: 08/31/20						
Chloride	404	1.00	mg/kg wet	400		101	80-120	0.220	20	
Calibration Blank (P0H3108-CCB1)				Prepared & Analyzed: 08/31/20						
Chloride	0.00		mg/kg wet							
Calibration Blank (P0H3108-CCB2)				Prepared & Analyzed: 08/31/20						
Chloride	0.00		mg/kg wet							
Calibration Check (P0H3108-CCV1)				Prepared & Analyzed: 08/31/20						
Chloride	19.8		mg/kg	20.0		99.0	0-200			
Calibration Check (P0H3108-CCV2)				Prepared & Analyzed: 08/31/20						
Chloride	19.9		mg/kg	20.0		99.4	0-200			
Calibration Check (P0H3108-CCV3)				Prepared: 08/31/20 Analyzed: 09/01/20						
Chloride	18.8		mg/kg	20.0		94.0	0-200			
Matrix Spike (P0H3108-MS1)		**Source: 0H31003-01**		Prepared & Analyzed: 08/31/20						
Chloride	9090	10.8	mg/kg dry	1080	7970	105	80-120			
Matrix Spike (P0H3108-MS2)		**Source: 0H31003-11**		Prepared & Analyzed: 08/31/20						
Chloride	524	1.05	mg/kg dry	526	18.7	96.0	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H3108 - * DEFAULT PREP *** **										
Matrix Spike Dup (P0H3108-MSD1)	**Source: 0H31003-01**			Prepared & Analyzed: 08/31/20						
Chloride	8950	10.8	mg/kg dry	1080	7970	91.5	80-120	1.58	20	
Matrix Spike Dup (P0H3108-MSD2)	**Source: 0H31003-11**			Prepared & Analyzed: 08/31/20						
Chloride	555	1.05	mg/kg dry	526	18.7	102	80-120	5.70	20	
Batch P0I0103 - * DEFAULT PREP *** **										
Blank (P0I0103-BLK1)				Prepared & Analyzed: 09/01/20						
Chloride	ND	1.00	mg/kg wet							
LCS (P0I0103-BS1)				Prepared & Analyzed: 09/01/20						
Chloride	409	1.00	mg/kg wet	400		102	80-120			
LCS Dup (P0I0103-BSD1)				Prepared & Analyzed: 09/01/20						
Chloride	408	1.00	mg/kg wet	400		102	80-120	0.245	20	
Calibration Blank (P0I0103-CCB1)				Prepared & Analyzed: 09/01/20						
Chloride	0.00		mg/kg wet							
Calibration Blank (P0I0103-CCB2)				Prepared & Analyzed: 09/01/20						
Chloride	0.00		mg/kg wet							
Calibration Check (P0I0103-CCV1)				Prepared & Analyzed: 09/01/20						
Chloride	18.9		mg/kg	20.0		94.7	0-200			
Calibration Check (P0I0103-CCV2)				Prepared & Analyzed: 09/01/20						
Chloride	19.0		mg/kg	20.0		95.0	0-200			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0I0103 - * DEFAULT PREP *** **										
Calibration Check (P0I0103-CCV3)				Prepared & Analyzed: 09/01/20						
Chloride	19.1		mg/kg	20.0		95.7	0-200			
Matrix Spike (P0I0103-MS1)		Source: 0H31003-21		Prepared & Analyzed: 09/01/20						
Chloride	531	1.03	mg/kg dry	515	28.7	97.5	80-120			
Matrix Spike (P0I0103-MS2)		Source: 0H31003-31		Prepared & Analyzed: 09/01/20						
Chloride	516	1.04	mg/kg dry	521	20.6	95.2	80-120			
Matrix Spike Dup (P0I0103-MSD1)		Source: 0H31003-21		Prepared & Analyzed: 09/01/20						
Chloride	515	1.03	mg/kg dry	515	28.7	94.3	80-120	3.10	20	
Matrix Spike Dup (P0I0103-MSD2)		Source: 0H31003-31		Prepared & Analyzed: 09/01/20						
Chloride	513	1.04	mg/kg dry	521	20.6	94.5	80-120	0.692	20	
Batch P0I0105 - * DEFAULT PREP *** **										
Blank (P0I0105-BLK1)				Prepared & Analyzed: 09/01/20						
% Moisture	ND	0.1	%							
Blank (P0I0105-BLK2)				Prepared & Analyzed: 09/01/20						
% Moisture	ND	0.1	%							
Blank (P0I0105-BLK3)				Prepared & Analyzed: 09/01/20						
% Moisture	ND	0.1	%							
Blank (P0I0105-BLK4)				Prepared & Analyzed: 09/01/20						
% Moisture	ND	0.1	%							

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0I0105 - * DEFAULT PREP *** **										
Blank (P0I0105-BLK5)				Prepared & Analyzed: 09/01/20						
% Moisture	ND	0.1	%							
Blank (P0I0105-BLK6)				Prepared & Analyzed: 09/01/20						
% Moisture	ND	0.1	%							
Blank (P0I0105-BLK7)				Prepared & Analyzed: 09/01/20						
% Moisture	ND	0.1	%							
Blank (P0I0105-BLK8)				Prepared & Analyzed: 09/01/20						
% Moisture	ND	0.1	%							
Duplicate (P0I0105-DUP1)	**Source: 0H28014-01**			Prepared & Analyzed: 09/01/20						
% Moisture	ND	0.1	%		ND				20	
Duplicate (P0I0105-DUP2)	**Source: 0H28016-09**			Prepared & Analyzed: 09/01/20						
% Moisture	6.0	0.1	%		6.0			0.00	20	
Duplicate (P0I0105-DUP3)	**Source: 0H28017-13**			Prepared & Analyzed: 09/01/20						
% Moisture	17.0	0.1	%		16.0			6.06	20	
Duplicate (P0I0105-DUP4)	**Source: 0H28017-23**			Prepared & Analyzed: 09/01/20						
% Moisture	13.0	0.1	%		12.0			8.00	20	
Duplicate (P0I0105-DUP5)	**Source: 0H28018-02**			Prepared & Analyzed: 09/01/20						
% Moisture	12.0	0.1	%		12.0			0.00	20	
Duplicate (P0I0105-DUP6)	**Source: 0H31003-07**			Prepared & Analyzed: 09/01/20						
% Moisture	3.0	0.1	%		3.0			0.00	20	

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0I0105 - * DEFAULT PREP *** **										
Duplicate (P0I0105-DUP7)		**Source: 0H31003-22**		Prepared & Analyzed: 09/01/20						
% Moisture	2.0	0.1	%		2.0			0.00	20	
Duplicate (P0I0105-DUP8)		**Source: 0H31003-32**		Prepared & Analyzed: 09/01/20						
% Moisture	4.0	0.1	%		3.0			28.6	20	R3
Duplicate (P0I0105-DUP9)		**Source: 0H31007-11**		Prepared & Analyzed: 09/01/20						
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P0I0105-DUPA)		**Source: 0H31008-05**		Prepared & Analyzed: 09/01/20						
% Moisture	11.0	0.1	%		12.0			8.70	20	
Duplicate (P0I0105-DUPB)		**Source: 0H31008-20**		Prepared & Analyzed: 09/01/20						
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P0I0105-DUPC)		**Source: 0H31008-30**		Prepared & Analyzed: 09/01/20						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P0I0105-DUPD)		**Source: 0H31009-14**		Prepared & Analyzed: 09/01/20						
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P0I0105-DUPE)		**Source: 0H31009-24**		Prepared & Analyzed: 09/01/20						
% Moisture	4.0	0.1	%		2.0			66.7	20	R3

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H3113 - TX 1005										
Blank (P0H3113-BLK1)				Prepared & Analyzed: 08/31/20						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*97.1*		*"*	*100*		*97.1*	*70-130*			
Surrogate: o-Terphenyl	*51.7*		*"*	*50.0*		*103*	*70-130*			
LCS (P0H3113-BS1)				Prepared & Analyzed: 08/31/20						
C6-C12	819	25.0	mg/kg wet	1000		81.9	75-125			
>C12-C28	903	25.0	"	1000		90.3	75-125			
Surrogate: 1-Chlorooctane	*102*		*"*	*100*		*102*	*70-130*			
Surrogate: o-Terphenyl	*49.8*		*"*	*50.0*		*99.6*	*70-130*			
LCS Dup (P0H3113-BSD1)				Prepared & Analyzed: 08/31/20						
C6-C12	819	25.0	mg/kg wet	1000		81.9	75-125	0.00855	20	
>C12-C28	906	25.0	"	1000		90.6	75-125	0.282	20	
Surrogate: 1-Chlorooctane	*105*		*"*	*100*		*105*	*70-130*			
Surrogate: o-Terphenyl	*51.9*		*"*	*50.0*		*104*	*70-130*			
Calibration Check (P0H3113-CCV1)				Prepared & Analyzed: 08/31/20						
C6-C12	469	25.0	mg/kg wet	500		93.8	85-115			
>C12-C28	473	25.0	"	500		94.5	85-115			
Surrogate: 1-Chlorooctane	*108*		*"*	*100*		*108*	*70-130*			
Surrogate: o-Terphenyl	*52.8*		*"*	*50.0*		*106*	*70-130*			
Calibration Check (P0H3113-CCV2)				Prepared & Analyzed: 08/31/20						
C6-C12	476	25.0	mg/kg wet	500		95.3	85-115			
>C12-C28	486	25.0	"	500		97.2	85-115			
Surrogate: 1-Chlorooctane	*111*		*"*	*100*		*111*	*70-130*			
Surrogate: o-Terphenyl	*54.4*		*"*	*50.0*		*109*	*70-130*			

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H3113 - TX 1005										
Matrix Spike (P0H3113-MS1)	**Source: 0H31003-01**			Prepared: 08/31/20 Analyzed: 09/01/20						
C6-C12	1060	26.9	mg/kg dry	1080	11.9	97.8	75-125			
>C12-C28	1210	26.9	"	1080	43.8	109	75-125			
Surrogate: 1-Chlorooctane	*117*		*"*	*108*		*109*	*70-130*			
Surrogate: o-Terphenyl	*55.9*		*"*	*53.8*		*104*	*70-130*			
Matrix Spike Dup (P0H3113-MSD1)	**Source: 0H31003-01**			Prepared: 08/31/20 Analyzed: 09/01/20						
C6-C12	1030	26.9	mg/kg dry	1080	11.9	95.1	75-125	2.81	20	
>C12-C28	1160	26.9	"	1080	43.8	104	75-125	4.09	20	
Surrogate: 1-Chlorooctane	*111*		*"*	*108*		*103*	*70-130*			
Surrogate: o-Terphenyl	*53.0*		*"*	*53.8*		*98.6*	*70-130*			

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Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ROI	Received on Ice
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 9/3/2020

Brent Barron, Laboratory Director/Technical Director

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№1273

CHAIN-OF-CUSTOD

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 8/31/2020 PAGE 1 OF 3

PO#: LAB WORK ORDER#: 0H31003

PROJECT LOCATION OR NAME: Dagger Lake PH8

LAI PROJECT #: 20-0100-05 COLLECTOR: DS/TJ

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESSERVED

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ | PAH 8270 ☐ | HOLDPAH ☐ | 8081 PESTICIDES ☐ | 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ | TCLP - PEST ☐ | TCLP VOC ☐ | HERB ☐ | Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ | OTHER LIST ☐ | LEAD - TOTAL ☐ | D.W. 200.8 ☐ | TCLP ☐ | RCI ☐ | TOX ☐ | FLASHPOINT ☐ | TDS ☐ | TSS ☐ | % MOISTURE ☐ | pH ☐ | HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ | CYANIDE ☐ | PECHLORATE ☐ | CHLORIDE ☒ | ANIONS ☐ | ALKALINITY ☐

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESSERVED	ANALYSES	FIELD NOTES
S-1, 1'	1	8/28/20	10:37	S	1				X		X X X X	Stop chloride when below 600 mg/Kg
S-1, 3'	2		10:40								X X X X	
S-1, 5'	3		10:42									
S-1, 10'	4		10:44									
S-2, 1'	5		11:15								X X X X	
S-2, 3'	6		11:17								X X X X	
S-2, 5'	7		11:20									
S-2, 10'	8		11:22									
S-3, 1'	9		12:10								X X X X	
S-3, 3'	10		12:12								X X X X	
S-3, 5'	11		12:13									
S-3, 10'	12		12:15									
S-4, 1'	13		12:40								X X X X	
S-4, 3'	14		12:42								X X X X	
S-4, 5'	15		12:45									
TOTAL					15							

RELINQUISHED BY:(Signature) DATE/TIME 8/31/20 0:10 RECEIVED BY: (Signature) Tyra Bledsoe

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY: PBEL

TURN AROUND TIME
NORMAL ☒ 5 Day
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 0.0 1.0 CF# C2 THERM#:
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 8/31/2020 PAGE 2 OF 3
PO#: LAB WORK ORDER#: 0H31003
PROJECT LOCATION OR NAME: Dog's Lake Pit
LAI PROJECT #: 20-0100-05 COLLECTOR: DS/TJ
Data Reported to:

TRRP report? ☐ Yes ☒ No
TIME ZONE: Time zone/State: MST
S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐ GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-4, 10'	16	8/28/20	12:47	S	1				X																				X		Stop chloride
S-9, 1'	17		11:00								X		X	X	X																when below
S-9, 3'	18		11:02								X		X	X	X																600 mg/kg
S-9, 5'	19		11:05																												
S-9, 10'	20		11:07																												
S-10, 1'	21		11:30								X		X	X	X																
S-10, 3'	22		11:32								X		X	X	X																
S-10, 5'	23		11:35																												
S-10, 10'	24		11:36																												
S-11, 1'	25		12:20								X		X	X	X																
S-11, 3'	26		12:22								X		X	X	X																
S-11, 5'	27		12:25																												
S-11, 10'	28		12:27																												
S-12, 1'	29		12:55								X		X	X	X																
S-12, 3'	30		12:57								X		X	X	X																
TOTAL					15																										

RELINQUISHED BY:(Signature) DATE/TIME 8/31/20 10:10 RECEIVED BY: (Signature) Teresa Belcher
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
LABORATORY: PBEL

TURN AROUND TIME
NORMAL ☒ 5 Day
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 0.0 1.0 CF1 C2 THERM#:
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

№ 1275

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 8/31/2020 PAGE 3 OF 3

PO#: _____ LAB WORK ORDER#: 0H31003

PROJECT LOCATION OR NAME: Dagger Lake P.S

LAI PROJECT #: 20-0100-05 COLLECTOR: DS/TJ

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES	FIELD NOTES
S-12 5'	31	8/28/20	13:00	S	1				X		Cl	STop chloride when below 600 mg/kg
S-12, 10'	82	1	13:02	1	1				1		Cl	
TOTAL					2							

ANALYSES: BTEX ☐ MTBE ☐ TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ GASOLINE MOD 8015 ☐ DIESEL - MOD 8015 ☐ OIL - MOD 8015 ☐ VOC 8260 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ 8081 PESTICIDES ☐ 8082 PCBS ☐ 8151 HERBICIDES ☐ TCLP - METALS (RCRA) ☐ TCLP VOC ☐ TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ TOTAL METALS (RCRA) ☐ OTHER LIST ☐ LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ RCI ☐ TOX ☐ FLASHPOINT ☐ TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ pH ☐ HEXAVALENT CHROMIUM ☐ EXPLOSIVES ☐ PECHLORATE ☐ CHLORIDES Cl ANIONS ☐ ALKALINITY ☐

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
	8/31/20 10:10	Trina Bledsoe
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)

LABORATORY: PBEL

TURN AROUND TIME
NORMAL ☒ 5 Day
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 0.0 1.0 CF+1 C2 THERM#: _____
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-10299-1
Laboratory Sample Delivery Group: 20-0100-05
Client Project/Site: Dagger Lake Pits Spill

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
1/24/2022 4:39:03 PM

Holly Taylor, Project Manager
(806)794-1296
holly.taylor@eurofinset.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.

Table of Contents

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
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: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Job ID: 880-10299-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-10299-1

Receipt
The samples were received on 1/18/2022 8:09 AM. 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 0.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-17114 and analytical batch 880-17206 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: C-1 (880-10299-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-17066 and analytical batch 880-17092 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28)

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-5 (880-10299-5), C-13 (880-10299-13), (880-10292-A-1-C), (880-10292-A-1-D MS) and (880-10292-A-1-E MSD). Evidence of matrix interferences is not obvious.

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: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Client Sample ID: C-1

Date Collected: 01/17/22 10:02
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/18/22 09:33	01/21/22 19:23	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/18/22 09:33	01/21/22 19:23	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/18/22 09:33	01/21/22 19:23	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		01/18/22 09:33	01/21/22 19:23	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/18/22 09:33	01/21/22 19:23	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/18/22 09:33	01/21/22 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*165*	*S1+*	*70 - 130*	*01/18/22 09:33*	*01/21/22 19:23*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*01/18/22 09:33*	*01/21/22 19:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**97.2**		50.0		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 03:32	1
Diesel Range Organics (Over C10-C28)	**97.2**		50.0		mg/Kg		01/19/22 08:54	01/21/22 03:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 03:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*71*		*70 - 130*	*01/19/22 08:54*	*01/21/22 03:32*	*1*
o-Terphenyl (Surr)	*71*		*70 - 130*	*01/19/22 08:54*	*01/21/22 03:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			01/20/22 00:27	1

Client Sample ID: C-2

Date Collected: 01/17/22 10:04
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/18/22 09:33	01/21/22 19:51	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/18/22 09:33	01/21/22 19:51	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/18/22 09:33	01/21/22 19:51	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		01/18/22 09:33	01/21/22 19:51	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/18/22 09:33	01/21/22 19:51	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/18/22 09:33	01/21/22 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/18/22 09:33*	*01/21/22 19:51*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*01/18/22 09:33*	*01/21/22 19:51*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-2 Lab Sample ID: 880-10299-2

Date Collected: 01/17/22 10:04 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 03:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 03:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*77*		*70 - 130*	*01/19/22 08:54*	*01/21/22 03:53*	*1*
o-Terphenyl (Surr)	*79*		*70 - 130*	*01/19/22 08:54*	*01/21/22 03:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**932**		4.96		mg/Kg			01/20/22 00:35	1

Client Sample ID: C-3 Lab Sample ID: 880-10299-3

Date Collected: 01/17/22 10:06 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/18/22 09:33	01/21/22 20:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/18/22 09:33	01/21/22 20:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/18/22 09:33	01/21/22 20:19	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		01/18/22 09:33	01/21/22 20:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/18/22 09:33	01/21/22 20:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/18/22 09:33	01/21/22 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/18/22 09:33*	*01/21/22 20:19*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/18/22 09:33*	*01/21/22 20:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 04:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 04:13	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-3 Lab Sample ID: 880-10299-3

Date Collected: 01/17/22 10:06 **Matrix: Solid**
Date Received: 01/18/22 08:09

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 04:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*71*		*70 - 130*	*01/19/22 08:54*	*01/21/22 04:13*	*1*
o-Terphenyl (Surr)	*72*		*70 - 130*	*01/19/22 08:54*	*01/21/22 04:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**838**		5.05		mg/Kg			01/20/22 00:44	1

Client Sample ID: C-4 Lab Sample ID: 880-10299-4

Date Collected: 01/17/22 10:08 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/18/22 09:33	01/21/22 20:47	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/18/22 09:33	01/21/22 20:47	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/18/22 09:33	01/21/22 20:47	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		01/18/22 09:33	01/21/22 20:47	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/18/22 09:33	01/21/22 20:47	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/18/22 09:33	01/21/22 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*01/18/22 09:33*	*01/21/22 20:47*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*01/18/22 09:33*	*01/21/22 20:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 04:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 04:34	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 04:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*76*		*70 - 130*	*01/19/22 08:54*	*01/21/22 04:34*	*1*
o-Terphenyl (Surr)	*77*		*70 - 130*	*01/19/22 08:54*	*01/21/22 04:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**802**		4.97		mg/Kg			01/20/22 01:09	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-5 Lab Sample ID: 880-10299-5

Date Collected: 01/17/22 10:10 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/18/22 09:33	01/21/22 21:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/18/22 09:33	01/21/22 21:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/18/22 09:33	01/21/22 21:15	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		01/18/22 09:33	01/21/22 21:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/18/22 09:33	01/21/22 21:15	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/18/22 09:33	01/21/22 21:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*01/18/22 09:33*	*01/21/22 21:15*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*01/18/22 09:33*	*01/21/22 21:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 04:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 04:55	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 04:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*71*		*70 - 130*	*01/19/22 08:54*	*01/21/22 04:55*	*1*
o-Terphenyl (Surr)	*69*	*S1-*	*70 - 130*	*01/19/22 08:54*	*01/21/22 04:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**415**		4.95		mg/Kg			01/20/22 01:17	1

Client Sample ID: C-6 Lab Sample ID: 880-10299-6

Date Collected: 01/17/22 10:12 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 21:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 21:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 21:42	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		01/18/22 09:33	01/21/22 21:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 21:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/18/22 09:33	01/21/22 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/18/22 09:33*	*01/21/22 21:42*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*01/18/22 09:33*	*01/21/22 21:42*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-6 Lab Sample ID: 880-10299-6

Date Collected: 01/17/22 10:12 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 05:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 05:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 05:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*74*		*70 - 130*	*01/19/22 08:54*	*01/21/22 05:15*	*1*
o-Terphenyl (Surr)	*75*		*70 - 130*	*01/19/22 08:54*	*01/21/22 05:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**415**		5.05		mg/Kg			01/20/22 01:26	1

Client Sample ID: C-7 Lab Sample ID: 880-10299-7

Date Collected: 01/17/22 10:14 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 22:11	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 22:11	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 22:11	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		01/18/22 09:33	01/21/22 22:11	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 22:11	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/18/22 09:33	01/21/22 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*01/18/22 09:33*	*01/21/22 22:11*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/18/22 09:33*	*01/21/22 22:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 05:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 05:36	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-7 Lab Sample ID: 880-10299-7

Date Collected: 01/17/22 10:14 **Matrix: Solid**
Date Received: 01/18/22 08:09

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 05:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*84*		*70 - 130*	*01/19/22 08:54*	*01/21/22 05:36*	*1*
o-Terphenyl (Surr)	*88*		*70 - 130*	*01/19/22 08:54*	*01/21/22 05:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**559**		5.01		mg/Kg			01/20/22 01:43	1

Client Sample ID: C-8 Lab Sample ID: 880-10299-8

Date Collected: 01/17/22 10:16 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 22:39	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 22:39	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 22:39	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		01/18/22 09:33	01/21/22 22:39	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 22:39	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/18/22 09:33	01/21/22 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*01/18/22 09:33*	*01/21/22 22:39*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*01/18/22 09:33*	*01/21/22 22:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 05:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 05:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 05:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*75*		*70 - 130*	*01/19/22 08:54*	*01/21/22 05:57*	*1*
o-Terphenyl (Surr)	*75*		*70 - 130*	*01/19/22 08:54*	*01/21/22 05:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**771**		4.97		mg/Kg			01/20/22 01:51	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Client Sample ID: C-9

Date Collected: 01/17/22 10:18
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-9
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/18/22 09:33	01/21/22 23:08	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/18/22 09:33	01/21/22 23:08	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/18/22 09:33	01/21/22 23:08	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		01/18/22 09:33	01/21/22 23:08	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/18/22 09:33	01/21/22 23:08	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/18/22 09:33	01/21/22 23:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*01/18/22 09:33*	*01/21/22 23:08*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*01/18/22 09:33*	*01/21/22 23:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**52.0**		50.0		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 06:39	1
Diesel Range Organics (Over C10-C28)	**52.0**		50.0		mg/Kg		01/19/22 08:54	01/21/22 06:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 06:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*75*		*70 - 130*	*01/19/22 08:54*	*01/21/22 06:39*	*1*
o-Terphenyl (Surr)	*77*		*70 - 130*	*01/19/22 08:54*	*01/21/22 06:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**917**		4.98		mg/Kg			01/20/22 02:16	1

Client Sample ID: C-10

Date Collected: 01/17/22 10:20
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-10
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 23:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 23:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 23:36	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		01/18/22 09:33	01/21/22 23:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/18/22 09:33	01/21/22 23:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/18/22 09:33	01/21/22 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/18/22 09:33*	*01/21/22 23:36*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*01/18/22 09:33*	*01/21/22 23:36*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-10 Lab Sample ID: 880-10299-10

Date Collected: 01/17/22 10:20 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 07:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 07:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 07:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*76*		*70 - 130*	*01/19/22 08:54*	*01/21/22 07:00*	*1*
o-Terphenyl (Surr)	*78*		*70 - 130*	*01/19/22 08:54*	*01/21/22 07:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**478**		4.95		mg/Kg			01/20/22 02:24	1

Client Sample ID: C-11 Lab Sample ID: 880-10299-11

Date Collected: 01/17/22 10:22 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U F1	0.00198		mg/Kg		01/19/22 07:30	01/19/22 11:08	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/19/22 07:30	01/19/22 11:08	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/19/22 07:30	01/19/22 11:08	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		01/19/22 07:30	01/19/22 11:08	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/19/22 07:30	01/19/22 11:08	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/19/22 07:30	01/19/22 11:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/19/22 07:30*	*01/19/22 11:08*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*01/19/22 07:30*	*01/19/22 11:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 07:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 07:21	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-11 Lab Sample ID: 880-10299-11

Date Collected: 01/17/22 10:22 **Matrix: Solid**
Date Received: 01/18/22 08:09

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 07:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*74*		*70 - 130*	*01/19/22 08:54*	*01/21/22 07:21*	*1*
o-Terphenyl (Surr)	*71*		*70 - 130*	*01/19/22 08:54*	*01/21/22 07:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**192**		5.04		mg/Kg			01/20/22 02:50	1

Client Sample ID: C-12 Lab Sample ID: 880-10299-12

Date Collected: 01/17/22 10:24 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 11:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 11:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 11:28	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		01/19/22 07:30	01/19/22 11:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 11:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/19/22 07:30	01/19/22 11:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/19/22 07:30*	*01/19/22 11:28*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*01/19/22 07:30*	*01/19/22 11:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 07:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 07:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 07:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*70*		*70 - 130*	*01/19/22 08:54*	*01/21/22 07:43*	*1*
o-Terphenyl (Surr)	*72*		*70 - 130*	*01/19/22 08:54*	*01/21/22 07:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**506**		4.99		mg/Kg			01/20/22 02:58	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Client Sample ID: C-13

Date Collected: 01/17/22 10:26
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-13

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 11:49	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 11:49	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 11:49	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		01/19/22 07:30	01/19/22 11:49	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 11:49	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/19/22 07:30	01/19/22 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/19/22 07:30*	*01/19/22 11:49*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/19/22 07:30*	*01/19/22 11:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 08:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 08:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 08:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*67*	*S1-*	*70 - 130*	*01/19/22 08:54*	*01/21/22 08:05*	*1*
o-Terphenyl (Surr)	*65*	*S1-*	*70 - 130*	*01/19/22 08:54*	*01/21/22 08:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**436**		4.97		mg/Kg			01/20/22 03:06	1

Client Sample ID: C-14

Date Collected: 01/17/22 10:28
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-14

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/19/22 07:30	01/19/22 12:09	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/19/22 07:30	01/19/22 12:09	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/19/22 07:30	01/19/22 12:09	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		01/19/22 07:30	01/19/22 12:09	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/19/22 07:30	01/19/22 12:09	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/19/22 07:30	01/19/22 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*01/19/22 07:30*	*01/19/22 12:09*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*01/19/22 07:30*	*01/19/22 12:09*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-14 Lab Sample ID: 880-10299-14

Date Collected: 01/17/22 10:28 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 08:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 08:26	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/22 08:54	01/21/22 08:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*90*		*70 - 130*	*01/19/22 08:54*	*01/21/22 08:26*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*01/19/22 08:54*	*01/21/22 08:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**266**		4.98		mg/Kg			01/20/22 03:15	1

Client Sample ID: C-15 Lab Sample ID: 880-10299-15

Date Collected: 01/17/22 10:30 **Matrix: Solid**
Date Received: 01/18/22 08:09

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 12:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 12:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 12:30	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		01/19/22 07:30	01/19/22 12:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/19/22 07:30	01/19/22 12:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/19/22 07:30	01/19/22 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*01/19/22 07:30*	*01/19/22 12:30*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*01/19/22 07:30*	*01/19/22 12:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		01/18/22 10:00	01/18/22 18:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/18/22 10:00	01/18/22 18:40	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-15

Lab Sample ID: 880-10299-15
Date Collected: 01/17/22 10:30
Matrix: Solid
Date Received: 01/18/22 08:09

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/18/22 10:00	01/18/22 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*82*		*70 - 130*	*01/18/22 10:00*	*01/18/22 18:40*	*1*
o-Terphenyl (Surr)	*80*		*70 - 130*	*01/18/22 10:00*	*01/18/22 18:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**154**		5.00		mg/Kg			01/20/22 03:23	1

Client Sample ID: C-16

Lab Sample ID: 880-10299-16
Date Collected: 01/17/22 10:32
Matrix: Solid
Date Received: 01/18/22 08:09

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 12:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 12:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 12:00	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		01/19/22 07:30	01/20/22 12:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 12:00	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/19/22 07:30	01/20/22 12:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*01/19/22 07:30*	*01/20/22 12:00*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/19/22 07:30*	*01/20/22 12:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		01/18/22 10:00	01/18/22 19:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/18/22 10:00	01/18/22 19:00	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/18/22 10:00	01/18/22 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*82*		*70 - 130*	*01/18/22 10:00*	*01/18/22 19:00*	*1*
o-Terphenyl (Surr)	*80*		*70 - 130*	*01/18/22 10:00*	*01/18/22 19:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**212**		5.00		mg/Kg			01/20/22 03:31	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Client Sample ID: C-17

Date Collected: 01/17/22 10:34
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-17

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 12:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 12:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 12:20	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		01/19/22 07:30	01/20/22 12:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 12:20	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/19/22 07:30	01/20/22 12:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*01/19/22 07:30*	*01/20/22 12:20*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*01/19/22 07:30*	*01/20/22 12:20*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/24/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/24/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		01/18/22 10:00	01/18/22 19:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/18/22 10:00	01/18/22 19:21	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/18/22 10:00	01/18/22 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*83*		*70 - 130*	*01/18/22 10:00*	*01/18/22 19:21*	*1*
o-Terphenyl (Surr)	*84*		*70 - 130*	*01/18/22 10:00*	*01/18/22 19:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**228**		5.00		mg/Kg			01/20/22 03:40	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-10254-A-6-M MS	Matrix Spike	87	63 S1-
880-10254-A-6-N MSD	Matrix Spike Duplicate	76	87
880-10292-A-2-C MSD	Matrix Spike Duplicate	102	86
880-10292-A-2-F MS	Matrix Spike	115	102
880-10299-1	C-1	165 S1+	86
880-10299-2	C-2	104	103
880-10299-3	C-3	104	100
880-10299-4	C-4	74	76
880-10299-5	C-5	109	103
880-10299-6	C-6	108	98
880-10299-7	C-7	106	95
880-10299-8	C-8	96	91
880-10299-9	C-9	105	97
880-10299-10	C-10	111	98
880-10299-11	C-11	104	79
880-10299-11 MS	C-11	102	98
880-10299-11 MSD	C-11	103	89
880-10299-12	C-12	111	91
880-10299-13	C-13	98	95
880-10299-14	C-14	110	91
880-10299-15	C-15	126	84
880-10299-16	C-16	120	100
880-10299-17	C-17	109	103
LCS 880-17113/1-A	Lab Control Sample	91	110
LCS 880-17114/1-A	Lab Control Sample	99	98
LCS 880-17131/1-A	Lab Control Sample	108	93
LCSD 880-17113/2-A	Lab Control Sample Dup	92	100
LCSD 880-17114/2-A	Lab Control Sample Dup	105	99
LCSD 880-17131/2-A	Lab Control Sample Dup	109	94
MB 880-17113/5-A	Method Blank	78	88
MB 880-17114/5-A	Method Blank	104	99
MB 880-17131/5-A	Method Blank	123	97

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)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-10292-A-1-D MS	Matrix Spike	64 S1-	56 S1-
880-10292-A-1-E MSD	Matrix Spike Duplicate	66 S1-	59 S1-
880-10299-1	C-1	71	71
880-10299-2	C-2	77	79
880-10299-3	C-3	71	72
880-10299-4	C-4	76	77
880-10299-5	C-5	71	69 S1-

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
880-10299-6	C-6	74	75								
880-10299-7	C-7	84	88								
880-10299-8	C-8	75	75								
880-10299-9	C-9	75	77								
880-10299-10	C-10	76	78								
880-10299-11	C-11	74	71								
880-10299-12	C-12	70	72								
880-10299-13	C-13	67 S1-	65 S1-								
880-10299-14	C-14	90	86								
880-10299-15	C-15	82	80								
880-10299-16	C-16	82	80								
880-10299-17	C-17	83	84								
890-1829-A-1-H MS	Matrix Spike	77	73								
890-1829-A-1-I MSD	Matrix Spike Duplicate	82	72								
LCS 880-17217/2-A	Lab Control Sample	99	94								
LCSD 880-17217/3-A	Lab Control Sample Dup	102	98								
MB 880-17217/1-A	Method Blank	74	82								

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)								
LCS 880-17066/2-A	Lab Control Sample	121	117								
LCSD 880-17066/3-A	Lab Control Sample Dup	101	99								
MB 880-17066/1-A	Method Blank	81	87								

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-17113/5-A
Matrix: Solid
Analysis Batch: 17425

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17113

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/19/22 11:00	01/21/22 12:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/19/22 11:00	01/21/22 12:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/19/22 11:00	01/21/22 12:53	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		01/19/22 11:00	01/21/22 12:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/19/22 11:00	01/21/22 12:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/19/22 11:00	01/21/22 12:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*01/19/22 11:00*	*01/21/22 12:53*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*01/19/22 11:00*	*01/21/22 12:53*	*1*

Lab Sample ID: LCS 880-17113/1-A
Matrix: Solid
Analysis Batch: 17425

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17113

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1127		mg/Kg		113	70 - 130		
Toluene			0.100	0.09574		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09535		mg/Kg		95	70 - 130		
m,p-Xylenes			0.200	0.2108		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1114		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 880-17113/2-A
Matrix: Solid
Analysis Batch: 17425

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17113

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09102		mg/Kg		91	70 - 130	21	35
Toluene			0.100	0.07603		mg/Kg		76	70 - 130	23	35
Ethylbenzene			0.100	0.07455		mg/Kg		75	70 - 130	24	35
m,p-Xylenes			0.200	0.1629		mg/Kg		81	70 - 130	26	35
o-Xylene			0.100	0.08821		mg/Kg		88	70 - 130	23	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 880-10254-A-6-M MS
Matrix: Solid
Analysis Batch: 17425

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17113

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F1	0.0992	0.005473	F1	mg/Kg		6	70 - 130		
Toluene	<0.00199	U F1 F2	0.0992	0.003894	F1	mg/Kg		4	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

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

Lab Sample ID: 880-10254-A-6-M MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 17425 **Prep Batch: 17113**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene	<0.00199	U F1	0.0992	0.005393	F1	mg/Kg		5	70 - 130		
m,p-Xylenes	<0.00398	U F1	0.198	0.01999	F1	mg/Kg		10	70 - 130		
o-Xylene	<0.00199	U F1	0.0992	0.01152	F1	mg/Kg		12	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*63*	*S1-*	*70 - 130*

Lab Sample ID: 880-10254-A-6-N MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 17425 **Prep Batch: 17113**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.100	0.005487	F1	mg/Kg		5	70 - 130	0	35
Toluene	<0.00199	U F1 F2	0.100	0.005737	F1 F2	mg/Kg		6	70 - 130	38	35
Ethylbenzene	<0.00199	U F1	0.100	0.005685	F1	mg/Kg		6	70 - 130	5	35
m,p-Xylenes	<0.00398	U F1	0.200	0.01657	F1	mg/Kg		8	70 - 130	19	35
o-Xylene	<0.00199	U F1	0.100	0.008377	F1	mg/Kg		8	70 - 130	32	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: MB 880-17114/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 17206 **Prep Batch: 17114**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/19/22 10:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/19/22 10:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/19/22 10:46	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		01/19/22 07:30	01/19/22 10:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/19/22 10:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/19/22 07:30	01/19/22 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/19/22 07:30*	*01/19/22 10:46*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*01/19/22 07:30*	*01/19/22 10:46*	*1*

Lab Sample ID: LCS 880-17114/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 17206 **Prep Batch: 17114**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08330		mg/Kg		83	70 - 130		
Toluene			0.100	0.07487		mg/Kg		75	70 - 130		
Ethylbenzene			0.100	0.07674		mg/Kg		77	70 - 130		
m,p-Xylenes			0.200	0.1592		mg/Kg		80	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

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

Lab Sample ID: LCS 880-17114/1-A
Matrix: Solid
Analysis Batch: 17206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17114

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.07990		mg/Kg		80	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-17114/2-A
Matrix: Solid
Analysis Batch: 17206

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17114

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08541		mg/Kg		85	70 - 130	3	35
Toluene			0.100	0.07920		mg/Kg		79	70 - 130	6	35
Ethylbenzene			0.100	0.08108		mg/Kg		81	70 - 130	6	35
m,p-Xylenes			0.200	0.1682		mg/Kg		84	70 - 130	5	35
o-Xylene			0.100	0.08298		mg/Kg		83	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-10299-11 MS
Matrix: Solid
Analysis Batch: 17206

Client Sample ID: C-11
Prep Type: Total/NA
Prep Batch: 17114

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U F1	0.0998	0.08186		mg/Kg		82	70 - 130
Toluene	<0.00198	U	0.0998	0.07743		mg/Kg		78	70 - 130
Ethylbenzene	<0.00198	U	0.0998	0.07820		mg/Kg		78	70 - 130
m,p-Xylenes	<0.00396	U	0.200	0.1624		mg/Kg		81	70 - 130
o-Xylene	<0.00198	U	0.0998	0.08156		mg/Kg		82	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-10299-11 MSD
Matrix: Solid
Analysis Batch: 17206

Client Sample ID: C-11
Prep Type: Total/NA
Prep Batch: 17114

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.0994	0.06652	F1	mg/Kg		67	70 - 130	21	35
Toluene	<0.00198	U	0.0994	0.07895		mg/Kg		79	70 - 130	2	35
Ethylbenzene	<0.00198	U	0.0994	0.07071		mg/Kg		71	70 - 130	10	35
m,p-Xylenes	<0.00396	U	0.199	0.1730		mg/Kg		87	70 - 130	6	35
o-Xylene	<0.00198	U	0.0994	0.09488		mg/Kg		95	70 - 130	15	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

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

Lab Sample ID: 880-10299-11 MSD
Matrix: Solid
Analysis Batch: 17206

Client Sample ID: C-11
Prep Type: Total/NA
Prep Batch: 17114

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: MB 880-17131/5-A
Matrix: Solid
Analysis Batch: 17325

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17131

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 11:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 11:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 11:10	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		01/19/22 07:30	01/20/22 11:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/19/22 07:30	01/20/22 11:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/19/22 07:30	01/20/22 11:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	01/19/22 07:30	01/20/22 11:10	1
1,4-Difluorobenzene (Surr)	97		70 - 130	01/19/22 07:30	01/20/22 11:10	1

Lab Sample ID: LCS 880-17131/1-A
Matrix: Solid
Analysis Batch: 17325

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17131

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09493		mg/Kg		95	70 - 130		
Toluene			0.100	0.1015		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.09858		mg/Kg		99	70 - 130		
m,p-Xylenes			0.200	0.1931		mg/Kg		97	70 - 130		
o-Xylene			0.100	0.09628		mg/Kg		96	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: LCSD 880-17131/2-A
Matrix: Solid
Analysis Batch: 17325

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17131

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09424		mg/Kg		94	70 - 130	1	35
Toluene			0.100	0.09680		mg/Kg		97	70 - 130	5	35
Ethylbenzene			0.100	0.1024		mg/Kg		102	70 - 130	4	35
m,p-Xylenes			0.200	0.1998		mg/Kg		100	70 - 130	3	35
o-Xylene			0.100	0.09640		mg/Kg		96	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

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

Lab Sample ID: LCSD 880-17131/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 17325 **Prep Batch: 17131**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-10292-A-2-C MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 17325 **Prep Batch: 17131**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.08451		mg/Kg		85	70 - 130	17	35
Toluene	<0.00202	U	0.0990	0.09054		mg/Kg		91	70 - 130	15	35
Ethylbenzene	<0.00202	U	0.0990	0.09309		mg/Kg		94	70 - 130	22	35
m,p-Xylenes	<0.00403	U	0.198	0.1811		mg/Kg		91	70 - 130	16	35
o-Xylene	<0.00202	U	0.0990	0.08850		mg/Kg		89	70 - 130	15	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: 880-10292-A-2-F MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 17325 **Prep Batch: 17131**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00202	U	0.100	0.09972		mg/Kg		99	70 - 130
Toluene	<0.00202	U	0.100	0.1050		mg/Kg		105	70 - 130
Ethylbenzene	<0.00202	U	0.100	0.1164		mg/Kg		116	70 - 130
m,p-Xylenes	<0.00403	U	0.201	0.2123		mg/Kg		106	70 - 130
o-Xylene	<0.00202	U	0.100	0.1030		mg/Kg		103	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

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

Lab Sample ID: MB 880-17066/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 17092 **Prep Batch: 17066**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/17/22 15:57	01/18/22 10:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/17/22 15:57	01/18/22 10:37	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/17/22 15:57	01/18/22 10:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	81		70 - 130	01/17/22 15:57	01/18/22 10:37	1
o-Terphenyl (Surr)	87		70 - 130	01/17/22 15:57	01/18/22 10:37	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

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

Lab Sample ID: LCS 880-17066/2-A
Matrix: Solid
Analysis Batch: 17092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17066

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	911.5		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1194		mg/Kg		119	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*121*		*70 - 130*
o-Terphenyl (Surr)	*117*		*70 - 130*

Lab Sample ID: LCSD 880-17066/3-A
Matrix: Solid
Analysis Batch: 17092

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17066

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	709.9	*1	mg/Kg		71	70 - 130	25	20
Diesel Range Organics (Over C10-C28)			1000	1042		mg/Kg		104	70 - 130	14	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*101*		*70 - 130*
o-Terphenyl (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-1829-A-1-H MS
Matrix: Solid
Analysis Batch: 17092

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17066

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	999	885.7		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1011		mg/Kg		101	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*77*		*70 - 130*
o-Terphenyl (Surr)	*73*		*70 - 130*

Lab Sample ID: 890-1829-A-1-I MSD
Matrix: Solid
Analysis Batch: 17092

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17066

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	<50.0	U *1	998	907.6		mg/Kg		88	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	999.8		mg/Kg		100	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*82*		*70 - 130*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

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

Lab Sample ID: 890-1829-A-1-I MSD
Matrix: Solid
Analysis Batch: 17092

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17066

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl (Surr)	72		70 - 130

Lab Sample ID: MB 880-17217/1-A
Matrix: Solid
Analysis Batch: 17328

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17217

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 01:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 01:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/22 08:54	01/21/22 01:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	74		70 - 130	01/19/22 08:54	01/21/22 01:07	1
o-Terphenyl (Surr)	82		70 - 130	01/19/22 08:54	01/21/22 01:07	1

Lab Sample ID: LCS 880-17217/2-A
Matrix: Solid
Analysis Batch: 17328

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17217

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1121		mg/Kg		112	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1011		mg/Kg		101	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	99		70 - 130
o-Terphenyl (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-17217/3-A
Matrix: Solid
Analysis Batch: 17328

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17217

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1082		mg/Kg		108	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	953.4		mg/Kg		95	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	102		70 - 130
o-Terphenyl (Surr)	98		70 - 130

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

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

Lab Sample ID: 880-10292-A-1-D MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 17328 **Prep Batch: 17217**

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 F1	997	<49.9	U F1	mg/Kg		0	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1008		mg/Kg		99	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*64*	*S1-*	*70 - 130*
o-Terphenyl (Surr)	*56*	*S1-*	*70 - 130*

Lab Sample ID: 880-10292-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 17328 **Prep Batch: 17217**

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 F1	996	<49.8	U F1	mg/Kg		0	70 - 130	NC	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1072		mg/Kg		106	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*66*	*S1-*	*70 - 130*
o-Terphenyl (Surr)	*59*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-17139/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 17187

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/19/22 23:29	1

Lab Sample ID: LCS 880-17139/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 17187

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	249.0		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-17139/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 17187

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	265.7		mg/Kg		106	90 - 110	7	20

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-10299-8 MS **Client Sample ID: C-8**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 17187

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	771		249	1035		mg/Kg		106	90 - 110		

Lab Sample ID: 880-10299-8 MSD **Client Sample ID: C-8**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 17187

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	771		249	999.5		mg/Kg		92	90 - 110	4	20

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

GC VOA

Prep Batch: 17113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-1	C-1	Total/NA	Solid	5035	
880-10299-2	C-2	Total/NA	Solid	5035	
880-10299-3	C-3	Total/NA	Solid	5035	
880-10299-4	C-4	Total/NA	Solid	5035	
880-10299-5	C-5	Total/NA	Solid	5035	
880-10299-6	C-6	Total/NA	Solid	5035	
880-10299-7	C-7	Total/NA	Solid	5035	
880-10299-8	C-8	Total/NA	Solid	5035	
880-10299-9	C-9	Total/NA	Solid	5035	
880-10299-10	C-10	Total/NA	Solid	5035	
MB 880-17113/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17113/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17113/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10254-A-6-M MS	Matrix Spike	Total/NA	Solid	5035	
880-10254-A-6-N MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 17114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-11	C-11	Total/NA	Solid	5035	
880-10299-12	C-12	Total/NA	Solid	5035	
880-10299-13	C-13	Total/NA	Solid	5035	
880-10299-14	C-14	Total/NA	Solid	5035	
880-10299-15	C-15	Total/NA	Solid	5035	
MB 880-17114/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17114/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17114/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10299-11 MS	C-11	Total/NA	Solid	5035	
880-10299-11 MSD	C-11	Total/NA	Solid	5035	

Prep Batch: 17131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-16	C-16	Total/NA	Solid	5035	
880-10299-17	C-17	Total/NA	Solid	5035	
MB 880-17131/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17131/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17131/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10292-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
880-10292-A-2-F MS	Matrix Spike	Total/NA	Solid	5035	

Analysis Batch: 17206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-11	C-11	Total/NA	Solid	8021B	17114
880-10299-12	C-12	Total/NA	Solid	8021B	17114
880-10299-13	C-13	Total/NA	Solid	8021B	17114
880-10299-14	C-14	Total/NA	Solid	8021B	17114
880-10299-15	C-15	Total/NA	Solid	8021B	17114
MB 880-17114/5-A	Method Blank	Total/NA	Solid	8021B	17114
LCS 880-17114/1-A	Lab Control Sample	Total/NA	Solid	8021B	17114
LCSD 880-17114/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17114
880-10299-11 MS	C-11	Total/NA	Solid	8021B	17114
880-10299-11 MSD	C-11	Total/NA	Solid	8021B	17114

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

GC VOA

Analysis Batch: 17325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-16	C-16	Total/NA	Solid	8021B	17131
880-10299-17	C-17	Total/NA	Solid	8021B	17131
MB 880-17131/5-A	Method Blank	Total/NA	Solid	8021B	17131
LCS 880-17131/1-A	Lab Control Sample	Total/NA	Solid	8021B	17131
LCSD 880-17131/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17131
880-10292-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17131
880-10292-A-2-F MS	Matrix Spike	Total/NA	Solid	8021B	17131

Analysis Batch: 17425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-1	C-1	Total/NA	Solid	8021B	17113
880-10299-2	C-2	Total/NA	Solid	8021B	17113
880-10299-3	C-3	Total/NA	Solid	8021B	17113
880-10299-4	C-4	Total/NA	Solid	8021B	17113
880-10299-5	C-5	Total/NA	Solid	8021B	17113
880-10299-6	C-6	Total/NA	Solid	8021B	17113
880-10299-7	C-7	Total/NA	Solid	8021B	17113
880-10299-8	C-8	Total/NA	Solid	8021B	17113
880-10299-9	C-9	Total/NA	Solid	8021B	17113
880-10299-10	C-10	Total/NA	Solid	8021B	17113
MB 880-17113/5-A	Method Blank	Total/NA	Solid	8021B	17113
LCS 880-17113/1-A	Lab Control Sample	Total/NA	Solid	8021B	17113
LCSD 880-17113/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17113
880-10254-A-6-M MS	Matrix Spike	Total/NA	Solid	8021B	17113
880-10254-A-6-N MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17113

Analysis Batch: 17647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-1	C-1	Total/NA	Solid	Total BTEX	
880-10299-2	C-2	Total/NA	Solid	Total BTEX	
880-10299-3	C-3	Total/NA	Solid	Total BTEX	
880-10299-4	C-4	Total/NA	Solid	Total BTEX	
880-10299-5	C-5	Total/NA	Solid	Total BTEX	
880-10299-6	C-6	Total/NA	Solid	Total BTEX	
880-10299-7	C-7	Total/NA	Solid	Total BTEX	
880-10299-8	C-8	Total/NA	Solid	Total BTEX	
880-10299-9	C-9	Total/NA	Solid	Total BTEX	
880-10299-10	C-10	Total/NA	Solid	Total BTEX	
880-10299-11	C-11	Total/NA	Solid	Total BTEX	
880-10299-12	C-12	Total/NA	Solid	Total BTEX	
880-10299-13	C-13	Total/NA	Solid	Total BTEX	
880-10299-14	C-14	Total/NA	Solid	Total BTEX	
880-10299-15	C-15	Total/NA	Solid	Total BTEX	
880-10299-16	C-16	Total/NA	Solid	Total BTEX	
880-10299-17	C-17	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 17066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-15	C-15	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

GC Semi VOA (Continued)

Prep Batch: 17066 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-16	C-16	Total/NA	Solid	8015NM Prep	
880-10299-17	C-17	Total/NA	Solid	8015NM Prep	
MB 880-17066/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-17066/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-17066/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1829-A-1-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1829-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 17092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-15	C-15	Total/NA	Solid	8015B NM	17066
880-10299-16	C-16	Total/NA	Solid	8015B NM	17066
880-10299-17	C-17	Total/NA	Solid	8015B NM	17066
MB 880-17066/1-A	Method Blank	Total/NA	Solid	8015B NM	17066
LCS 880-17066/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	17066
LCSD 880-17066/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	17066
890-1829-A-1-H MS	Matrix Spike	Total/NA	Solid	8015B NM	17066
890-1829-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	17066

Prep Batch: 17217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-1	C-1	Total/NA	Solid	8015NM Prep	
880-10299-2	C-2	Total/NA	Solid	8015NM Prep	
880-10299-3	C-3	Total/NA	Solid	8015NM Prep	
880-10299-4	C-4	Total/NA	Solid	8015NM Prep	
880-10299-5	C-5	Total/NA	Solid	8015NM Prep	
880-10299-6	C-6	Total/NA	Solid	8015NM Prep	
880-10299-7	C-7	Total/NA	Solid	8015NM Prep	
880-10299-8	C-8	Total/NA	Solid	8015NM Prep	
880-10299-9	C-9	Total/NA	Solid	8015NM Prep	
880-10299-10	C-10	Total/NA	Solid	8015NM Prep	
880-10299-11	C-11	Total/NA	Solid	8015NM Prep	
880-10299-12	C-12	Total/NA	Solid	8015NM Prep	
880-10299-13	C-13	Total/NA	Solid	8015NM Prep	
880-10299-14	C-14	Total/NA	Solid	8015NM Prep	
MB 880-17217/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-17217/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-17217/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10292-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-10292-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 17328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-1	C-1	Total/NA	Solid	8015B NM	17217
880-10299-2	C-2	Total/NA	Solid	8015B NM	17217
880-10299-3	C-3	Total/NA	Solid	8015B NM	17217
880-10299-4	C-4	Total/NA	Solid	8015B NM	17217
880-10299-5	C-5	Total/NA	Solid	8015B NM	17217
880-10299-6	C-6	Total/NA	Solid	8015B NM	17217
880-10299-7	C-7	Total/NA	Solid	8015B NM	17217
880-10299-8	C-8	Total/NA	Solid	8015B NM	17217

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

GC Semi VOA (Continued)

Analysis Batch: 17328 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-9	C-9	Total/NA	Solid	8015B NM	17217
880-10299-10	C-10	Total/NA	Solid	8015B NM	17217
880-10299-11	C-11	Total/NA	Solid	8015B NM	17217
880-10299-12	C-12	Total/NA	Solid	8015B NM	17217
880-10299-13	C-13	Total/NA	Solid	8015B NM	17217
880-10299-14	C-14	Total/NA	Solid	8015B NM	17217
MB 880-17217/1-A	Method Blank	Total/NA	Solid	8015B NM	17217
LCS 880-17217/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	17217
LCSD 880-17217/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	17217
880-10292-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	17217
880-10292-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	17217

Analysis Batch: 17641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-1	C-1	Total/NA	Solid	8015 NM	
880-10299-2	C-2	Total/NA	Solid	8015 NM	
880-10299-3	C-3	Total/NA	Solid	8015 NM	
880-10299-4	C-4	Total/NA	Solid	8015 NM	
880-10299-5	C-5	Total/NA	Solid	8015 NM	
880-10299-6	C-6	Total/NA	Solid	8015 NM	
880-10299-7	C-7	Total/NA	Solid	8015 NM	
880-10299-8	C-8	Total/NA	Solid	8015 NM	
880-10299-9	C-9	Total/NA	Solid	8015 NM	
880-10299-10	C-10	Total/NA	Solid	8015 NM	
880-10299-11	C-11	Total/NA	Solid	8015 NM	
880-10299-12	C-12	Total/NA	Solid	8015 NM	
880-10299-13	C-13	Total/NA	Solid	8015 NM	
880-10299-14	C-14	Total/NA	Solid	8015 NM	
880-10299-15	C-15	Total/NA	Solid	8015 NM	
880-10299-16	C-16	Total/NA	Solid	8015 NM	
880-10299-17	C-17	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 17139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-1	C-1	Soluble	Solid	DI Leach	
880-10299-2	C-2	Soluble	Solid	DI Leach	
880-10299-3	C-3	Soluble	Solid	DI Leach	
880-10299-4	C-4	Soluble	Solid	DI Leach	
880-10299-5	C-5	Soluble	Solid	DI Leach	
880-10299-6	C-6	Soluble	Solid	DI Leach	
880-10299-7	C-7	Soluble	Solid	DI Leach	
880-10299-8	C-8	Soluble	Solid	DI Leach	
880-10299-9	C-9	Soluble	Solid	DI Leach	
880-10299-10	C-10	Soluble	Solid	DI Leach	
880-10299-11	C-11	Soluble	Solid	DI Leach	
880-10299-12	C-12	Soluble	Solid	DI Leach	
880-10299-13	C-13	Soluble	Solid	DI Leach	
880-10299-14	C-14	Soluble	Solid	DI Leach	
880-10299-15	C-15	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

HPLC/IC (Continued)

Leach Batch: 17139 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-16	C-16	Soluble	Solid	DI Leach	
880-10299-17	C-17	Soluble	Solid	DI Leach	
MB 880-17139/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-17139/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-17139/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-10299-8 MS	C-8	Soluble	Solid	DI Leach	
880-10299-8 MSD	C-8	Soluble	Solid	DI Leach	

Analysis Batch: 17187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10299-1	C-1	Soluble	Solid	300.0	17139
880-10299-2	C-2	Soluble	Solid	300.0	17139
880-10299-3	C-3	Soluble	Solid	300.0	17139
880-10299-4	C-4	Soluble	Solid	300.0	17139
880-10299-5	C-5	Soluble	Solid	300.0	17139
880-10299-6	C-6	Soluble	Solid	300.0	17139
880-10299-7	C-7	Soluble	Solid	300.0	17139
880-10299-8	C-8	Soluble	Solid	300.0	17139
880-10299-9	C-9	Soluble	Solid	300.0	17139
880-10299-10	C-10	Soluble	Solid	300.0	17139
880-10299-11	C-11	Soluble	Solid	300.0	17139
880-10299-12	C-12	Soluble	Solid	300.0	17139
880-10299-13	C-13	Soluble	Solid	300.0	17139
880-10299-14	C-14	Soluble	Solid	300.0	17139
880-10299-15	C-15	Soluble	Solid	300.0	17139
880-10299-16	C-16	Soluble	Solid	300.0	17139
880-10299-17	C-17	Soluble	Solid	300.0	17139
MB 880-17139/1-A	Method Blank	Soluble	Solid	300.0	17139
LCS 880-17139/2-A	Lab Control Sample	Soluble	Solid	300.0	17139
LCSD 880-17139/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	17139
880-10299-8 MS	C-8	Soluble	Solid	300.0	17139
880-10299-8 MSD	C-8	Soluble	Solid	300.0	17139

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Client Sample ID: C-1

Date Collected: 01/17/22 10:02
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-1
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			4.96 g	5 mL	17113	01/18/22 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17425	01/21/22 19:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 03:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 00:27	CH	XEN MID

Client Sample ID: C-2

Date Collected: 01/17/22 10:04
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-2
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			5.05 g	5 mL	17113	01/18/22 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17425	01/21/22 19:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 03:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 00:35	CH	XEN MID

Client Sample ID: C-3

Date Collected: 01/17/22 10:06
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-3
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			5.00 g	5 mL	17113	01/18/22 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17425	01/21/22 20:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 04:13	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 00:44	CH	XEN MID

Client Sample ID: C-4

Date Collected: 01/17/22 10:08
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-4
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			5.05 g	5 mL	17113	01/18/22 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17425	01/21/22 20:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-4 Lab Sample ID: 880-10299-4

Date Collected: 01/17/22 10:08 **Matrix: Solid**
Date Received: 01/18/22 08:09

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			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 04:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 01:09	CH	XEN MID

Client Sample ID: C-5 Lab Sample ID: 880-10299-5

Date Collected: 01/17/22 10:10 **Matrix: Solid**
Date Received: 01/18/22 08:09

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	17113	01/18/22 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17425	01/21/22 21:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 04:55	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 01:17	CH	XEN MID

Client Sample ID: C-6 Lab Sample ID: 880-10299-6

Date Collected: 01/17/22 10:12 **Matrix: Solid**
Date Received: 01/18/22 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	17113	01/18/22 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17425	01/21/22 21:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 05:15	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 01:26	CH	XEN MID

Client Sample ID: C-7 Lab Sample ID: 880-10299-7

Date Collected: 01/17/22 10:14 **Matrix: Solid**
Date Received: 01/18/22 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	17113	01/18/22 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17425	01/21/22 22:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 05:36	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-7 Lab Sample ID: 880-10299-7

Date Collected: 01/17/22 10:14 **Matrix: Solid**
Date Received: 01/18/22 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 01:43	CH	XEN MID

Client Sample ID: C-8 Lab Sample ID: 880-10299-8

Date Collected: 01/17/22 10:16 **Matrix: Solid**
Date Received: 01/18/22 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	17113	01/18/22 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17425	01/21/22 22:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 05:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 01:51	CH	XEN MID

Client Sample ID: C-9 Lab Sample ID: 880-10299-9

Date Collected: 01/17/22 10:18 **Matrix: Solid**
Date Received: 01/18/22 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	17113	01/18/22 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17425	01/21/22 23:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 06:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 02:16	CH	XEN MID

Client Sample ID: C-10 Lab Sample ID: 880-10299-10

Date Collected: 01/17/22 10:20 **Matrix: Solid**
Date Received: 01/18/22 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	17113	01/18/22 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17425	01/21/22 23:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 07:00	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 02:24	CH	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Client Sample ID: C-11

Date Collected: 01/17/22 10:22
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-11

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			5.05 g	5 mL	17114	01/19/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17206	01/19/22 11:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 07:21	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 02:50	CH	XEN MID

Client Sample ID: C-12

Date Collected: 01/17/22 10:24
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-12

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			5.02 g	5 mL	17114	01/19/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17206	01/19/22 11:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 07:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 02:58	CH	XEN MID

Client Sample ID: C-13

Date Collected: 01/17/22 10:26
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-13

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			5.02 g	5 mL	17114	01/19/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17206	01/19/22 11:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 08:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 03:06	CH	XEN MID

Client Sample ID: C-14

Date Collected: 01/17/22 10:28
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-14

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	17114	01/19/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17206	01/19/22 12:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

Client Sample ID: C-14 Lab Sample ID: 880-10299-14

Date Collected: 01/17/22 10:28 **Matrix: Solid**
Date Received: 01/18/22 08:09

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			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	17217	01/19/22 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17328	01/21/22 08:26	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 03:15	CH	XEN MID

Client Sample ID: C-15 Lab Sample ID: 880-10299-15

Date Collected: 01/17/22 10:30 **Matrix: Solid**
Date Received: 01/18/22 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	17114	01/19/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17206	01/19/22 12:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	17066	01/18/22 10:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17092	01/18/22 18:40	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 03:23	CH	XEN MID

Client Sample ID: C-16 Lab Sample ID: 880-10299-16

Date Collected: 01/17/22 10:32 **Matrix: Solid**
Date Received: 01/18/22 08:09

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	17131	01/19/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17325	01/20/22 12:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	17066	01/18/22 10:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17092	01/18/22 19:00	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 03:31	CH	XEN MID

Client Sample ID: C-17 Lab Sample ID: 880-10299-17

Date Collected: 01/17/22 10:34 **Matrix: Solid**
Date Received: 01/18/22 08:09

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	17131	01/19/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17325	01/20/22 12:20	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17647	01/24/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17641	01/24/22 16:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	17066	01/18/22 10:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17092	01/18/22 19:21	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Client Sample ID: C-17

Date Collected: 01/17/22 10:34
Date Received: 01/18/22 08:09

Lab Sample ID: 880-10299-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	17139	01/18/22 11:33	CH	XEN MID
Soluble	Analysis	300.0		1			17187	01/20/22 03:40	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

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	T104704400-21-22	06-30-22

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: Larson & Associates, Inc. Job ID: 880-10299-1
Project/Site: Dagger Lake Pits Spill SDG: 20-0100-05

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

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pits Spill

Job ID: 880-10299-1
SDG: 20-0100-05

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-10299-1	C-1	Solid	01/17/22 10:02	01/18/22 08:09
880-10299-2	C-2	Solid	01/17/22 10:04	01/18/22 08:09
880-10299-3	C-3	Solid	01/17/22 10:06	01/18/22 08:09
880-10299-4	C-4	Solid	01/17/22 10:08	01/18/22 08:09
880-10299-5	C-5	Solid	01/17/22 10:10	01/18/22 08:09
880-10299-6	C-6	Solid	01/17/22 10:12	01/18/22 08:09
880-10299-7	C-7	Solid	01/17/22 10:14	01/18/22 08:09
880-10299-8	C-8	Solid	01/17/22 10:16	01/18/22 08:09
880-10299-9	C-9	Solid	01/17/22 10:18	01/18/22 08:09
880-10299-10	C-10	Solid	01/17/22 10:20	01/18/22 08:09
880-10299-11	C-11	Solid	01/17/22 10:22	01/18/22 08:09
880-10299-12	C-12	Solid	01/17/22 10:24	01/18/22 08:09
880-10299-13	C-13	Solid	01/17/22 10:26	01/18/22 08:09
880-10299-14	C-14	Solid	01/17/22 10:28	01/18/22 08:09
880-10299-15	C-15	Solid	01/17/22 10:30	01/18/22 08:09
880-10299-16	C-16	Solid	01/17/22 10:32	01/18/22 08:09
880-10299-17	C-17	Solid	01/17/22 10:34	01/18/22 08:09

No. 2308

10299 CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N Marienfeld Ste 202
Midland TX 79701
432-687 0901

Data Reported to

DATE 1/18/2022 PAGE 1 OF 2

PO# LAB WORK ORDER#

PROJECT LOCATION OR NAME Dagger Lake Pits Spill

LAI PROJECT # 20-0100-05 COLLECTOR AN

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE
Time zone/State
MST/NM

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESSERVED	ANALYSES: BTEX 8021 MTBE	TRPH 418.1	TPH 1005	TPH 1006	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL MOD 8015	VOC 8260	SVOC 8270	PAH 8270	HOLDPAH	8081 PESTICIDES	8151 HERBICIDES	8082 PCBS	TCLP METALS (RCRA)	TCLP VOC	TCLP - PEST	HERB	TOTAL METALS (RCRA)	Semi-VOC	LEAD - TOTAL	DW 200.8	OTHER LIST	RCI	TOX	TCLP	TDS	FLASHPOINT	TSS	pH	% MOISTURE	EXPLOSIVES	CYANIDE	HEXAVALENT CHROMIUM	PECHLORATE	CHLORIDE	ANIONS	ALKALINITY	FIELD NOTES
C-1		1/17/22	1002	S	1				X		X				X	X	X	X																													
C-2			1004																																												
C-3			1006																																												
C-4			1008																																												
C-5			1010																																												
C-6			1012																																												
C-7			1014																																												
C-8			1016																																												
C-9			1018																																												
C-10			1020																																												
C-11			1022																																												
C-12			1024																																												
C-13			1026																																												
C-14			1028																																												
C-15			1030																																												
TOTAL																																													

FIELD NOTES

880-10299 Chain of Custody

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
	1/18/22 0809	
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY Xenco

TURN AROUND TIME
NORMAL ☑
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 0.1/.2 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

No. 2309

10299

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N Marienfeld Ste 202
Midland, TX 79701
432-687 0901

Data Reported to

DATE 1/18/2022 PAGE 2 OF 2

PO# LAB WORK ORDER#

PROJECT LOCATION OR NAME Dagger Lake Pit soil

LAI PROJECT # 20-0100-05 COLLECTOR RN

TRRP report? ☐ Yes ☒ No

TIME ZONE Time zone/State: MST/NM

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl, HNO_3, H_2SO_4, NaOH, ICE, UNPRESSERVED

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4	NaOH	ICE	UNPRESSERVED	BTEX MTBE	TPH 418.1	TPH 1005	TPH 1006	GASOLINE MOD 8015	DIESEL MOD 8015	OIL - MOD 8015	VOC 8260	SVOC 8270	PAH 8270	HOLDPAH	8081 PESTICIDES	8151 HERBICIDES	8082 PCBS	TCLP VOC	TCLP - METALS (RCRA)	TCLP - PEST	HERB	TOTAL METALS (RCRA)	Semi-VOC	LEAD - TOTAL	OTHER LIST	DW 200.8	TCLP	RCI	TOX	TDS	FLASHPOINT	TSS	% MOISTURE	pH	HEXAVALENT CHROMIUM	CYANIDE	EXPLOSIVES	PECHLORATE	CHLORIDE	ANIONS	ALKALINITY	FIELD NOTES
C-16		1/17/22	1032	S	1					X		X		X		X	X	X																									X						
C-17		1	1034	1	1					X		X		X		X	X	X																									X						
TOTAL																																																

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
	1/19/22 0809	
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY Xenco

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP .1/.2 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-10299-1
SDG Number: 20-0100-05

Login Number: 10299
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1874-1
Laboratory Sample Delivery Group: 20-0100-05
Client Project/Site: Dagger Lake Pit- Backfill
Revision: 1

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
2/2/2022 10:35:27 AM

Holly Taylor, Project Manager
(806)794-1296
holly.taylor@eurofinset.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: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Laboratory Job ID: 890-1874-1
SDG: 20-0100-05

Table of Contents

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 890-1874-1
Project/Site: Dagger Lake Pit- Backfill SDG: 20-0100-05

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
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: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

Job ID: 890-1874-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1874-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 1/28/2022. The report (revision 1) is being revised to change project name per Daniel St. Germain (email).

Receipt
The samples were received on 1/26/2022 1:33 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 was 5.6º C.

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-17863, 880-17863 and 880-17886 and analytical batch 880-17867 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCSD 880-17886/2-A), (880-10599-A-4-B MS), (880-10599-A-4-C MSD) and (880-10654-A-21-B MSD). Evidence of matrix interferences is not obvious.

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

GC Semi VOA
Method 8015B NM: Surrogate recovery for the following samples were outside control limits: (MB 880-17880/1-A) and (890-1866-A-1-J MSD). Evidence of matrix interferences is not obvious.

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

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

Client Sample ID: BF-1

Date Collected: 01/26/22 12:00
Date Received: 01/26/22 13:33

Lab Sample ID: 890-1874-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/27/22 08:03	01/27/22 14:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/27/22 08:03	01/27/22 14:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/27/22 08:03	01/27/22 14:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/27/22 08:03	01/27/22 14:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/27/22 08:03	01/27/22 14:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/27/22 08:03	01/27/22 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*01/27/22 08:03*	*01/27/22 14:04*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*01/27/22 08:03*	*01/27/22 14:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/27/22 20:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/27/22 16:10	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/27/22 09:51	01/27/22 14:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/27/22 09:51	01/27/22 14:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/27/22 09:51	01/27/22 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*117*		*70 - 130*	*01/27/22 09:51*	*01/27/22 14:34*	*1*
o-Terphenyl (Surr)	*115*		*70 - 130*	*01/27/22 09:51*	*01/27/22 14:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			01/27/22 16:43	1

Client Sample ID: BF-2

Date Collected: 01/26/22 12:05
Date Received: 01/26/22 13:33

Lab Sample ID: 890-1874-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/27/22 08:03	01/27/22 14:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/27/22 08:03	01/27/22 14:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/27/22 08:03	01/27/22 14:25	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/27/22 08:03	01/27/22 14:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/27/22 08:03	01/27/22 14:25	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/27/22 08:03	01/27/22 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*01/27/22 08:03*	*01/27/22 14:25*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/27/22 08:03*	*01/27/22 14:25*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

Client Sample ID: BF-2

Date Collected: 01/26/22 12:05
Date Received: 01/26/22 13:33

Lab Sample ID: 890-1874-2

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/27/22 20:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/27/22 16:10	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/27/22 09:51	01/27/22 14:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/27/22 09:51	01/27/22 14:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/27/22 09:51	01/27/22 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*99*		*70 - 130*	*01/27/22 09:51*	*01/27/22 14:55*	*1*
o-Terphenyl (Surr)	*94*		*70 - 130*	*01/27/22 09:51*	*01/27/22 14:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.79**		5.05		mg/Kg			01/27/22 16:50	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

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)
890-1874-1	BF-1	129	110
890-1874-2	BF-2	113	100

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)
890-1866-A-1-I MS	Matrix Spike	70	73
890-1866-A-1-J MSD	Matrix Spike Duplicate	74	65 S1-
890-1874-1	BF-1	117	115
890-1874-2	BF-2	99	94

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO2	OTPH2
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-17880/2-A	Lab Control Sample	99	109
LCSD 880-17880/3-A	Lab Control Sample Dup	93	94
MB 880-17880/1-A	Method Blank	159 S1+	168 S1+

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

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

Lab Sample ID: MB 880-17880/1-A
Matrix: Solid
Analysis Batch: 17882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17880

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/27/22 09:51	01/27/22 11:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/27/22 09:51	01/27/22 11:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/27/22 09:51	01/27/22 11:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*159*	*S1+*	*70 - 130*	*01/27/22 09:51*	*01/27/22 11:24*	*1*
o-Terphenyl (Surr)	*168*	*S1+*	*70 - 130*	*01/27/22 09:51*	*01/27/22 11:24*	*1*

Lab Sample ID: LCS 880-17880/2-A
Matrix: Solid
Analysis Batch: 17882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17880

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	896.1		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1044		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*99*		*70 - 130*
o-Terphenyl (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 880-17880/3-A
Matrix: Solid
Analysis Batch: 17882

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17880

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	894.5		mg/Kg		89	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	992.6		mg/Kg		99	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*93*		*70 - 130*
o-Terphenyl (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1866-A-1-I MS
Matrix: Solid
Analysis Batch: 17882

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17880

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	1202		mg/Kg		121	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1078		mg/Kg		108	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

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

Lab Sample ID: 890-1866-A-1-I MS
Matrix: Solid
Analysis Batch: 17882

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17880

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*70*		*70 - 130*
o-Terphenyl (Surr)	*73*		*70 - 130*

Lab Sample ID: 890-1866-A-1-J MSD
Matrix: Solid
Analysis Batch: 17882

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17880

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	996	1170		mg/Kg		117	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1078		mg/Kg		108	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*74*		*70 - 130*
o-Terphenyl (Surr)	*65*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-17944/1-A
Matrix: Solid
Analysis Batch: 17946

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/27/22 14:48	1

Lab Sample ID: LCS 880-17944/2-A
Matrix: Solid
Analysis Batch: 17946

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	273.9		mg/Kg		110	90 - 110		

Lab Sample ID: LCSD 880-17944/3-A
Matrix: Solid
Analysis Batch: 17946

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	273.6		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 880-10422-A-20-B MS
Matrix: Solid
Analysis Batch: 17946

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	240		248	506.7		mg/Kg		108	90 - 110		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-10422-A-20-C MSD
Matrix: Solid
Analysis Batch: 17946

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	240		248	499.0		mg/Kg		105	90 - 110	2	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

GC VOA

Prep Batch: 17863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1874-1	BF-1	Total/NA	Solid	5035	
890-1874-2	BF-2	Total/NA	Solid	5035	

Analysis Batch: 17867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1874-1	BF-1	Total/NA	Solid	8021B	17863
890-1874-2	BF-2	Total/NA	Solid	8021B	17863

Analysis Batch: 17973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1874-1	BF-1	Total/NA	Solid	Total BTEX	
890-1874-2	BF-2	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 17880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1874-1	BF-1	Total/NA	Solid	8015NM Prep	
890-1874-2	BF-2	Total/NA	Solid	8015NM Prep	
MB 880-17880/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-17880/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-17880/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1866-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1866-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 17882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1874-1	BF-1	Total/NA	Solid	8015B NM	17880
890-1874-2	BF-2	Total/NA	Solid	8015B NM	17880
MB 880-17880/1-A	Method Blank	Total/NA	Solid	8015B NM	17880
LCS 880-17880/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	17880
LCSD 880-17880/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	17880
890-1866-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	17880
890-1866-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	17880

Analysis Batch: 17951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1874-1	BF-1	Total/NA	Solid	8015 NM	
890-1874-2	BF-2	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 17944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1874-1	BF-1	Soluble	Solid	DI Leach	
890-1874-2	BF-2	Soluble	Solid	DI Leach	
MB 880-17944/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-17944/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-17944/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-10422-A-20-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-10422-A-20-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

HPLC/IC

Analysis Batch: 17946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1874-1	BF-1	Soluble	Solid	300.0	17944
890-1874-2	BF-2	Soluble	Solid	300.0	17944
MB 880-17944/1-A	Method Blank	Soluble	Solid	300.0	17944
LCS 880-17944/2-A	Lab Control Sample	Soluble	Solid	300.0	17944
LCSD 880-17944/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	17944
880-10422-A-20-B MS	Matrix Spike	Soluble	Solid	300.0	17944
880-10422-A-20-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	17944

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

Client Sample ID: BF-1

Date Collected: 01/26/22 12:00
Date Received: 01/26/22 13:33

Lab Sample ID: 890-1874-1

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			5.03 g	5 mL	17863	01/27/22 08:03	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17867	01/27/22 14:04	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17973	01/27/22 20:27	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17880	01/27/22 09:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17882	01/27/22 14:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	17944	01/27/22 14:21	CH	XEN MID
Soluble	Analysis	300.0		1			17946	01/27/22 16:43	CH	XEN MID

Client Sample ID: BF-2

Date Collected: 01/26/22 12:05
Date Received: 01/26/22 13:33

Lab Sample ID: 890-1874-2

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			4.99 g	5 mL	17863	01/27/22 08:03	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17867	01/27/22 14:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17973	01/27/22 20:27	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17880	01/27/22 09:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17882	01/27/22 14:55	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	17944	01/27/22 14:21	CH	XEN MID
Soluble	Analysis	300.0		1			17946	01/27/22 16:50	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

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	T104704400-21-22	06-30-22

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: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

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

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit- Backfill

Job ID: 890-1874-1
SDG: 20-0100-05

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-1874-1	BF-1	Solid	01/26/22 12:00	01/26/22 13:33
890-1874-2	BF-2	Solid	01/26/22 12:05	01/26/22 13:33

No. 2260

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

890-1874 Chain of Custody

Data Reported to:

DATE: 1/26/2022 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Dagger Lake Pit - Backfill

LAI PROJECT #: 20-0100-05 COLLECTOR: DSG

TRRP report? ☐ Yes ☒ No

TIME ZONE Time zone/State: MST / NM

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH | ICE | UNPRESSERVED

Field Sample I.D	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH	ICE	UNPRESSERVED	BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐	8082 PCBS ☐	8151 HERBICIDES ☐	TCLP - METALS (RCRA) ☐	TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D W 200.8 ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐	ALKALINITY ☐	FIELD NOTES
BF-1		1/26/22	1200	S	1				X		X		X	X	X																	X			
BF-2		1/26/22	1205	S	1				X		X		X	X	X																	X			

TOTAL 2

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
[signature]	1/26/2022 1:33	[signature]
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY XENCO

TURN AROUND TIME
NORMAL ☐
1 DAY ☒
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 5.8/5.6 THERM# I-NM007
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 890-1874-1
SDG Number: 20-0100-05

Login Number: 1874
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: Larson & Associates, Inc.

Job Number: 890-1874-1
SDG Number: 20-0100-05

Login Number: 1874
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/27/22 11:48 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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1881-1
Laboratory Sample Delivery Group: 20-0100-05
Client Project/Site: Dagger Lake Pit

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
2/1/2022 11:52:29 AM

Holly Taylor, Project Manager
(806)794-1296
holly.taylor@eurofinset.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: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Laboratory Job ID: 890-1881-1
SDG: 20-0100-05

Table of Contents

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 890-1881-1
Project/Site: Dagger Lake Pit SDG: 20-0100-05

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1-	Surrogate recovery exceeds control limits, low biased.
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: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

Job ID: 890-1881-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1881-1

Receipt
The samples were received on 1/27/2022 3:51 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 11.6°C

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-18103 and analytical batch 880-18110 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-8 (890-1881-2), (MB 880-18103/1-A), (890-1869-A-41-G MS) and (890-1869-A-41-H MSD). Evidence of matrix interferences is not obvious.

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: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

Client Sample ID: C-2

Date Collected: 01/27/22 13:00
Date Received: 01/27/22 15:51
Sample Depth: 4.1

Lab Sample ID: 890-1881-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 11:45	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 11:45	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 11:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/22 07:24	01/31/22 11:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 11:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/22 07:24	01/31/22 11:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*01/31/22 07:24*	*01/31/22 11:45*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*01/31/22 07:24*	*01/31/22 11:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/31/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 08:21	01/31/22 13:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		01/31/22 08:21	01/31/22 13:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 08:21	01/31/22 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*73*		*70 - 130*	*01/31/22 08:21*	*01/31/22 13:24*	*1*
o-Terphenyl (Surr)	*74*		*70 - 130*	*01/31/22 08:21*	*01/31/22 13:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**779**		4.97		mg/Kg			01/31/22 17:59	1

Client Sample ID: C-8

Date Collected: 01/27/22 13:12
Date Received: 01/27/22 15:51
Sample Depth: 2.5

Lab Sample ID: 890-1881-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 12:06	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 12:06	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 12:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/22 07:24	01/31/22 12:06	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 12:06	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/22 07:24	01/31/22 12:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*01/31/22 07:24*	*01/31/22 12:06*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

Client Sample ID: C-8

Date Collected: 01/27/22 13:12
Date Received: 01/27/22 15:51
Sample Depth: 2.5

Lab Sample ID: 890-1881-2

Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*01/31/22 07:24*	*01/31/22 12:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/31/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 08:21	01/31/22 13:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		01/31/22 08:21	01/31/22 13:45	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 08:21	01/31/22 13:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	*69*	*S1-*	*70 - 130*	*01/31/22 08:21*	*01/31/22 13:45*	*1*
o-Terphenyl (Surr)	*68*	*S1-*	*70 - 130*	*01/31/22 08:21*	*01/31/22 13:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**256**		4.95		mg/Kg			01/31/22 18:06	1

Client Sample ID: C-4

Date Collected: 01/27/22 13:55
Date Received: 01/27/22 15:51
Sample Depth: 0 - 4.1

Lab Sample ID: 890-1881-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/31/22 07:24	01/31/22 12:26	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/31/22 07:24	01/31/22 12:26	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/31/22 07:24	01/31/22 12:26	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/31/22 07:24	01/31/22 12:26	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/31/22 07:24	01/31/22 12:26	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/31/22 07:24	01/31/22 12:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/31/22 07:24*	*01/31/22 12:26*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*01/31/22 07:24*	*01/31/22 12:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			01/31/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:01	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

Client Sample ID: C-4

Date Collected: 01/27/22 13:55
Date Received: 01/27/22 15:51
Sample Depth: 0 - 4.1

Lab Sample ID: 890-1881-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 08:21	01/31/22 14:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		01/31/22 08:21	01/31/22 14:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 08:21	01/31/22 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*73*		*70 - 130*	*01/31/22 08:21*	*01/31/22 14:07*	*1*
o-Terphenyl (Surr)	*76*		*70 - 130*	*01/31/22 08:21*	*01/31/22 14:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**196**		4.98		mg/Kg			01/31/22 18:29	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

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)										
880-10720-A-1-E MS	Matrix Spike	102	103										
880-10720-A-1-F MSD	Matrix Spike Duplicate	96	97										
890-1881-1	C-2	123	105										
890-1881-2	C-8	132 S1+	70										
890-1881-3	C-4	104	108										
LCS 880-18098/1-A	Lab Control Sample	102	101										
LCSD 880-18098/2-A	Lab Control Sample Dup	98	99										
MB 880-18098/5-A	Method Blank	98	95										

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)										
890-1869-A-41-G MS	Matrix Spike	69 S1-	66 S1-										
890-1869-A-41-H MSD	Matrix Spike Duplicate	67 S1-	62 S1-										
890-1881-1	C-2	73	74										
890-1881-2	C-8	69 S1-	68 S1-										
890-1881-3	C-4	73	76										
LCS 880-18103/2-A	Lab Control Sample	81	76										
LCSD 880-18103/3-A	Lab Control Sample Dup	82	77										
MB 880-18103/1-A	Method Blank	67 S1-	72										

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-18098/5-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18098

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/31/22 07:24*	*01/31/22 10:43*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/31/22 07:24*	*01/31/22 10:43*	*1*

Lab Sample ID: LCS 880-18098/1-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18098

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07904		mg/Kg		79	70 - 130		
Toluene			0.100	0.07722		mg/Kg		77	70 - 130		
Ethylbenzene			0.100	0.07702		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene			0.200	0.1584		mg/Kg		79	70 - 130		
o-Xylene			0.100	0.07663		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-18098/2-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18098

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08134		mg/Kg		81	70 - 130	3	35
Toluene			0.100	0.07230		mg/Kg		72	70 - 130	7	35
Ethylbenzene			0.100	0.07478		mg/Kg		75	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1517		mg/Kg		76	70 - 130	4	35
o-Xylene			0.100	0.07439		mg/Kg		74	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-10720-A-1-E MS
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.100	0.08526		mg/Kg		85	70 - 130		
Toluene	<0.00200	U	0.100	0.08078		mg/Kg		81	70 - 130		

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

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

Lab Sample ID: 880-10720-A-1-E MS
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.100	0.08135		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1659		mg/Kg		83	70 - 130
o-Xylene	<0.00200	U	0.100	0.08128		mg/Kg		81	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-10720-A-1-F MSD
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.08653		mg/Kg		87	70 - 130	1	35
Toluene	<0.00200	U	0.0996	0.08058		mg/Kg		81	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.0996	0.07884		mg/Kg		79	70 - 130	3	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1589		mg/Kg		80	70 - 130	4	35
o-Xylene	<0.00200	U	0.0996	0.07941		mg/Kg		80	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-18103/1-A
Matrix: Solid
Analysis Batch: 18110

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18103

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 08:21	01/31/22 11:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 08:21	01/31/22 11:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 08:21	01/31/22 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*67*	*S1-*	*70 - 130*	*01/31/22 08:21*	*01/31/22 11:07*	*1*
o-Terphenyl (Surr)	*72*		*70 - 130*	*01/31/22 08:21*	*01/31/22 11:07*	*1*

Lab Sample ID: LCS 880-18103/2-A
Matrix: Solid
Analysis Batch: 18110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18103

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1250		mg/Kg		125	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1341	*+	mg/Kg		134	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

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

Lab Sample ID: LCS 880-18103/2-A
Matrix: Solid
Analysis Batch: 18110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18103

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	81		70 - 130
o-Terphenyl (Surr)	76		70 - 130

Lab Sample ID: LCSD 880-18103/3-A
Matrix: Solid
Analysis Batch: 18110

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18103

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1098		mg/Kg		110	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1137		mg/Kg		114	70 - 130	17	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	82		70 - 130
o-Terphenyl (Surr)	77		70 - 130

Lab Sample ID: 890-1869-A-41-G MS
Matrix: Solid
Analysis Batch: 18110

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18103

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	1260		mg/Kg		124	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U *+	997	975.6		mg/Kg		96	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	69	S1-	70 - 130
o-Terphenyl (Surr)	66	S1-	70 - 130

Lab Sample ID: 890-1869-A-41-H MSD
Matrix: Solid
Analysis Batch: 18110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18103

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	996	1183		mg/Kg		116	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U *+	996	930.0		mg/Kg		92	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	67	S1-	70 - 130
o-Terphenyl (Surr)	62	S1-	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18091/1-A
Matrix: Solid
Analysis Batch: 18196

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/31/22 15:08	1

Lab Sample ID: LCS 880-18091/2-A
Matrix: Solid
Analysis Batch: 18196

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.4		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-18091/3-A
Matrix: Solid
Analysis Batch: 18196

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	268.7		mg/Kg		107	90 - 110	1	20

Lab Sample ID: 890-1862-A-4-E MS
Matrix: Solid
Analysis Batch: 18196

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	281		249	549.6		mg/Kg		108	90 - 110		

Lab Sample ID: 890-1862-A-4-F MSD
Matrix: Solid
Analysis Batch: 18196

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	281		249	546.4		mg/Kg		107	90 - 110	1	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

GC VOA

Prep Batch: 18098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1881-1	C-2	Total/NA	Solid	5035	
890-1881-2	C-8	Total/NA	Solid	5035	
890-1881-3	C-4	Total/NA	Solid	5035	
MB 880-18098/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-18098/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-18098/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10720-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-10720-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 18100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1881-1	C-2	Total/NA	Solid	8021B	18098
890-1881-2	C-8	Total/NA	Solid	8021B	18098
890-1881-3	C-4	Total/NA	Solid	8021B	18098
MB 880-18098/5-A	Method Blank	Total/NA	Solid	8021B	18098
LCS 880-18098/1-A	Lab Control Sample	Total/NA	Solid	8021B	18098
LCSD 880-18098/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	18098
880-10720-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	18098
880-10720-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	18098

Analysis Batch: 18172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1881-1	C-2	Total/NA	Solid	Total BTEX	
890-1881-2	C-8	Total/NA	Solid	Total BTEX	
890-1881-3	C-4	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 18103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1881-1	C-2	Total/NA	Solid	8015NM Prep	
890-1881-2	C-8	Total/NA	Solid	8015NM Prep	
890-1881-3	C-4	Total/NA	Solid	8015NM Prep	
MB 880-18103/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18103/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18103/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1869-A-41-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1869-A-41-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1881-1	C-2	Total/NA	Solid	8015B NM	18103
890-1881-2	C-8	Total/NA	Solid	8015B NM	18103
890-1881-3	C-4	Total/NA	Solid	8015B NM	18103
MB 880-18103/1-A	Method Blank	Total/NA	Solid	8015B NM	18103
LCS 880-18103/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18103
LCSD 880-18103/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18103
890-1869-A-41-G MS	Matrix Spike	Total/NA	Solid	8015B NM	18103
890-1869-A-41-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18103

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

GC Semi VOA

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1881-1	C-2	Total/NA	Solid	8015 NM	
890-1881-2	C-8	Total/NA	Solid	8015 NM	
890-1881-3	C-4	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 18091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1881-1	C-2	Soluble	Solid	DI Leach	
890-1881-2	C-8	Soluble	Solid	DI Leach	
890-1881-3	C-4	Soluble	Solid	DI Leach	
MB 880-18091/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18091/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18091/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1862-A-4-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1862-A-4-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 18196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1881-1	C-2	Soluble	Solid	300.0	18091
890-1881-2	C-8	Soluble	Solid	300.0	18091
890-1881-3	C-4	Soluble	Solid	300.0	18091
MB 880-18091/1-A	Method Blank	Soluble	Solid	300.0	18091
LCS 880-18091/2-A	Lab Control Sample	Soluble	Solid	300.0	18091
LCSD 880-18091/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18091
890-1862-A-4-E MS	Matrix Spike	Soluble	Solid	300.0	18091
890-1862-A-4-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	18091

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

Client Sample ID: C-2

Date Collected: 01/27/22 13:00
Date Received: 01/27/22 15:51

Lab Sample ID: 890-1881-1
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			5.03 g	5 mL	18098	01/31/22 07:24	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18100	01/31/22 11:45	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18172	01/31/22 13:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18103	01/31/22 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18110	01/31/22 13:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	18091	01/29/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		1			18196	01/31/22 17:59	CH	XEN MID

Client Sample ID: C-8

Date Collected: 01/27/22 13:12
Date Received: 01/27/22 15:51

Lab Sample ID: 890-1881-2
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			5.03 g	5 mL	18098	01/31/22 07:24	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18100	01/31/22 12:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18172	01/31/22 13:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18103	01/31/22 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18110	01/31/22 13:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	18091	01/29/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		1			18196	01/31/22 18:06	CH	XEN MID

Client Sample ID: C-4

Date Collected: 01/27/22 13:55
Date Received: 01/27/22 15:51

Lab Sample ID: 890-1881-3
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			4.95 g	5 mL	18098	01/31/22 07:24	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18100	01/31/22 12:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18172	01/31/22 13:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18103	01/31/22 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18110	01/31/22 14:07	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18091	01/29/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		1			18196	01/31/22 18:29	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

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	T104704400-21-22	06-30-22

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: Larson & Associates, Inc. Job ID: 890-1881-1
Project/Site: Dagger Lake Pit SDG: 20-0100-05

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

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Lake Pit

Job ID: 890-1881-1
SDG: 20-0100-05

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1881-1	C-2	Solid	01/27/22 13:00	01/27/22 15:51	4.1
890-1881-2	C-8	Solid	01/27/22 13:12	01/27/22 15:51	2.5
890-1881-3	C-4	Solid	01/27/22 13:55	01/27/22 15:51	0 - 4.1

No. 2263

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

890-1881 Chain of Custody

Data Reported to:

DATE: 1/27/2022 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Dagger Lake Pit

LAI PROJECT #: 20-0100-05 COLLECTOR: DSG

TRRP report? ☐ Yes ☒ No

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

TIME ZONE Time zone/State: MST) NM

Field Sample I.D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8062 PCBS ☐	TCLP - METALS (RCRA) ☐	TCLP VOC ☐	TCLP - PEST ☐	HERB ☐	TOTAL METALS (RCRA) ☐	Semi-VOC ☐	LEAD - TOTAL ☐	OTHER LIST ☐	RCI ☐	D W 200.8 ☐	TDS ☐	TCLP ☐	pH ☐	FLASHPOINT ☐	EXPLOSIVES ☐	% MOISTURE ☐	CHLORIDE ☒	CYANIDE ☐	ANIONS ☐	PECHLORATE ☐	ALKALINITY ☐	FIELD NOTES
C-2 4.1'		1/27/22	1300	S	1				X		X			X	X	X																				X					
C-8 2.5'		1/27/22	1312	S	1				X		X			X	X	X																				X					
C-4 0-4.1		1/27/22	1355	S	1				X		X			X	X	X																				X					

TOTAL 3

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
DSG	1/27/22	1:27.22 1551
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY XENCO

TURN AROUND TIME
NORMAL ☐
1 DAY ☒
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 11.8 11.4 -0.2 THERM# TNM_007
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 890-1881-1
SDG Number: 20-0100-05

Login Number: 1881
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: Larson & Associates, Inc.

Job Number: 890-1881-1
SDG Number: 20-0100-05

Login Number: 1881
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 01/31/22 08:21 AM

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.	True	
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	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-10720-1
Laboratory Sample Delivery Group: 20-0100-05
Client Project/Site: Dagger Cake Pit

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
2/1/2022 11:46:47 AM

Holly Taylor, Project Manager
(806)794-1296
holly.taylor@eurofinset.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: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Laboratory Job ID: 880-10720-1
SDG: 20-0100-05

Table of Contents

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-10720-1
Project/Site: Dagger Cake Pit SDG: 20-0100-05

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

Job ID: 880-10720-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-10720-1

Comments
No additional comments.

Receipt
The sample was received on 1/28/2022 3:32 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 7.5º C.

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

GC Semi VOA
Method 8015B NM: Surrogate recovery for the following samples were outside control limits: (MB 880-18062/1-A), (890-1869-A-1-G) and (890-1869-A-1-I MSD). Evidence of matrix interferences is not obvious.

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

General Chemistry
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-18091 and analytical batch 880-18196 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

Client Sample ID: C-9 4.1'

Date Collected: 01/28/22 10:40
Date Received: 01/28/22 15:32

Lab Sample ID: 880-10720-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 11:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 11:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 11:05	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		01/31/22 07:24	01/31/22 11:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 11:05	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/31/22 07:24	01/31/22 11:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*01/31/22 07:24*	*01/31/22 11:05*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/31/22 07:24*	*01/31/22 11:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/31/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**134**		50.0		mg/Kg			01/31/22 13:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/28/22 16:00	01/29/22 06:48	1
Diesel Range Organics (Over C10-C28)	**82.8**		50.0		mg/Kg		01/28/22 16:00	01/29/22 06:48	1
Oil Range Organics (Over C28-C36)	**51.6**		50.0		mg/Kg		01/28/22 16:00	01/29/22 06:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*72*		*70 - 130*	*01/28/22 16:00*	*01/29/22 06:48*	*1*
o-Terphenyl (Surr)	*77*		*70 - 130*	*01/28/22 16:00*	*01/29/22 06:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**	**F1**	4.95		mg/Kg			01/31/22 15:50	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-10720-1	C-9 4.1'	116	101
880-10720-1 MS	C-9 4.1'	102	103
880-10720-1 MSD	C-9 4.1'	96	97
LCS 880-18098/1-A	Lab Control Sample	102	101
LCSD 880-18098/2-A	Lab Control Sample Dup	98	99
MB 880-18098/5-A	Method Blank	98	95

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)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-10720-1	C-9 4.1'	72	77
890-1869-A-1-H MS	Matrix Spike	71	72
890-1869-A-1-I MSD	Matrix Spike Duplicate	60 S1-	60 S1-
LCS 880-18062/2-A	Lab Control Sample	121	129
LCSD 880-18062/3-A	Lab Control Sample Dup	104	115
MB 880-18062/1-A	Method Blank	110	132 S1+

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-18098/5-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18098

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/31/22 07:24*	*01/31/22 10:43*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/31/22 07:24*	*01/31/22 10:43*	*1*

Lab Sample ID: LCS 880-18098/1-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18098

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07904		mg/Kg		79	70 - 130		
Toluene			0.100	0.07722		mg/Kg		77	70 - 130		
Ethylbenzene			0.100	0.07702		mg/Kg		77	70 - 130		
m,p-Xylenes			0.200	0.1584		mg/Kg		79	70 - 130		
o-Xylene			0.100	0.07663		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-18098/2-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18098

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08134		mg/Kg		81	70 - 130	3	35
Toluene			0.100	0.07230		mg/Kg		72	70 - 130	7	35
Ethylbenzene			0.100	0.07478		mg/Kg		75	70 - 130	3	35
m,p-Xylenes			0.200	0.1517		mg/Kg		76	70 - 130	4	35
o-Xylene			0.100	0.07439		mg/Kg		74	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-10720-1 MS
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: C-9 4.1'
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.100	0.08526		mg/Kg		85	70 - 130		
Toluene	<0.00200	U	0.100	0.08078		mg/Kg		81	70 - 130		

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

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

Lab Sample ID: 880-10720-1 MS
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: C-9 4.1'
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.100	0.08135		mg/Kg		81	70 - 130
m,p-Xylenes	<0.00399	U	0.200	0.1659		mg/Kg		83	70 - 130
o-Xylene	<0.00200	U	0.100	0.08128		mg/Kg		81	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-10720-1 MSD
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: C-9 4.1'
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.08653		mg/Kg		87	70 - 130	1	35
Toluene	<0.00200	U	0.0996	0.08058		mg/Kg		81	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.0996	0.07884		mg/Kg		79	70 - 130	3	35
m,p-Xylenes	<0.00399	U	0.199	0.1589		mg/Kg		80	70 - 130	4	35
o-Xylene	<0.00200	U	0.0996	0.07941		mg/Kg		80	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-18062/1-A
Matrix: Solid
Analysis Batch: 17977

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18062

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/28/22 14:42	01/28/22 21:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/28/22 14:42	01/28/22 21:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/28/22 14:42	01/28/22 21:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*110*		*70 - 130*	*01/28/22 14:42*	*01/28/22 21:35*	*1*
o-Terphenyl (Surr)	*132*	*S1+*	*70 - 130*	*01/28/22 14:42*	*01/28/22 21:35*	*1*

Lab Sample ID: LCS 880-18062/2-A
Matrix: Solid
Analysis Batch: 17977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18062

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	999.0		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1133		mg/Kg		113	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

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

Lab Sample ID: LCS 880-18062/2-A
Matrix: Solid
Analysis Batch: 17977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18062

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	121		70 - 130
o-Terphenyl (Surr)	129		70 - 130

Lab Sample ID: LCSD 880-18062/3-A
Matrix: Solid
Analysis Batch: 17977

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18062

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	890.9		mg/Kg		89	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	1001		mg/Kg		100	70 - 130	12	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	104		70 - 130
o-Terphenyl (Surr)	115		70 - 130

Lab Sample ID: 890-1869-A-1-H MS
Matrix: Solid
Analysis Batch: 17977

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18062

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	1307		mg/Kg		129	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1256		mg/Kg		124	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	71		70 - 130
o-Terphenyl (Surr)	72		70 - 130

Lab Sample ID: 890-1869-A-1-I MSD
Matrix: Solid
Analysis Batch: 17977

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18062

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	996	1113		mg/Kg		110	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1026		mg/Kg		101	70 - 130	20	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	60	S1-	70 - 130
o-Terphenyl (Surr)	60	S1-	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18091/1-A
Matrix: Solid
Analysis Batch: 18196

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/31/22 15:08	1

Lab Sample ID: LCS 880-18091/2-A
Matrix: Solid
Analysis Batch: 18196

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.4		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-18091/3-A
Matrix: Solid
Analysis Batch: 18196

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	268.7		mg/Kg		107	90 - 110	1	20

Lab Sample ID: 880-10720-1 MS
Matrix: Solid
Analysis Batch: 18196

Client Sample ID: C-9 4.1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	180	F1	248	472.5	F1	mg/Kg		118	90 - 110		

Lab Sample ID: 880-10720-1 MSD
Matrix: Solid
Analysis Batch: 18196

Client Sample ID: C-9 4.1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	180	F1	248	468.4	F1	mg/Kg		117	90 - 110	1	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

GC VOA

Prep Batch: 18098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10720-1	C-9 4.1'	Total/NA	Solid	5035	
MB 880-18098/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-18098/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-18098/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10720-1 MS	C-9 4.1'	Total/NA	Solid	5035	
880-10720-1 MSD	C-9 4.1'	Total/NA	Solid	5035	

Analysis Batch: 18100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10720-1	C-9 4.1'	Total/NA	Solid	8021B	18098
MB 880-18098/5-A	Method Blank	Total/NA	Solid	8021B	18098
LCS 880-18098/1-A	Lab Control Sample	Total/NA	Solid	8021B	18098
LCSD 880-18098/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	18098
880-10720-1 MS	C-9 4.1'	Total/NA	Solid	8021B	18098
880-10720-1 MSD	C-9 4.1'	Total/NA	Solid	8021B	18098

Analysis Batch: 18172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10720-1	C-9 4.1'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 17977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10720-1	C-9 4.1'	Total/NA	Solid	8015B NM	18062
MB 880-18062/1-A	Method Blank	Total/NA	Solid	8015B NM	18062
LCS 880-18062/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18062
LCSD 880-18062/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18062
890-1869-A-1-H MS	Matrix Spike	Total/NA	Solid	8015B NM	18062
890-1869-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18062

Prep Batch: 18062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10720-1	C-9 4.1'	Total/NA	Solid	8015NM Prep	
MB 880-18062/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18062/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18062/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1869-A-1-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1869-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10720-1	C-9 4.1'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 18091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10720-1	C-9 4.1'	Soluble	Solid	DI Leach	
MB 880-18091/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18091/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18091/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

HPLC/IC (Continued)

Leach Batch: 18091 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10720-1 MS	C-9 4.1'	Soluble	Solid	DI Leach	
880-10720-1 MSD	C-9 4.1'	Soluble	Solid	DI Leach	

Analysis Batch: 18196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10720-1	C-9 4.1'	Soluble	Solid	300.0	18091
MB 880-18091/1-A	Method Blank	Soluble	Solid	300.0	18091
LCS 880-18091/2-A	Lab Control Sample	Soluble	Solid	300.0	18091
LCSD 880-18091/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18091
880-10720-1 MS	C-9 4.1'	Soluble	Solid	300.0	18091
880-10720-1 MSD	C-9 4.1'	Soluble	Solid	300.0	18091

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

Client Sample ID: C-9 4.1'

Date Collected: 01/28/22 10:40
Date Received: 01/28/22 15:32

Lab Sample ID: 880-10720-1

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	18098	01/31/22 07:24	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18100	01/31/22 11:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18172	01/31/22 13:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18062	01/28/22 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17977	01/29/22 06:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	18091	01/29/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		1			18196	01/31/22 15:50	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-10720-1
Project/Site: Dagger Cake Pit SDG: 20-0100-05

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	T104704400-21-22	06-30-22

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: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

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

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Job ID: 880-10720-1
SDG: 20-0100-05

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-10720-1	C-9 4.1'	Solid	01/28/22 10:40	01/28/22 15:32

1 2 3 4 5 6 7 8 9 10 11 12 13 14

No. 2264

CHAIN-OF-CUSTODY

10720

Larson & Associates, Inc.
Environmental Consultants
507 N Marienfeld Ste 202
Midland TX 79701
432-687 0901

Data Reported to

DATE 1/28/2022 PAGE 1 OF 1
PO#: LAB WORK ORDER#
PROJECT LOCATION OR NAME Dagger Lake Pit
LAI PROJECT # 20-0100-05 COLLECTOR BSG

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE
Time zone/State
MST / NM

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESSERVED

ANALYSES: BTEX ☐ MTBE ☐, TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐, GASOLINE MOD 8015 ☐, DIESEL - MOD 8015 ☐, OIL - MOD 8015 ☐, VOC 8260 ☐, SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐, 8081 PESTICIDES ☐ 8151 HERBICIDES ☐, 8082 PCBS ☐, TCLP - METALS (RCRA) ☐ TCLP VOC ☐, TCLP PEST ☐ HERB ☐ Semi-VOC ☐, TOTAL METALS (RCRA) ☐ OTHER LIST ☐, LEAD - TOTAL ☐ D W 200 8 ☐ TCLP ☐, RCI ☐ TOX ☐ FLASHPOINT ☐, TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐, pH ☐ HEXAVALENT CHROMIUM ☐, EXPLOSIVES ☐ PECHLORATE ☐, CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 / NaOH	ICE	UNPRESSERVED	BTEX/MTBE	TRPH 418.1 / TPH 1005 / TPH 1006	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	CHLORIDE / ANIONS / ALKALINITY	FIELD NOTES
C-9 4.1'		1/28/22	1040	S	1				X		X		X	X	X	X	

TOTAL 1

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
[signature]	1/28/22 / 15:32	[signature]

LABORATORY Xenco

TURN AROUND TIME
NORMAL ☐
1 DAY ☒
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 4/4.5 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

880-10720 Chain of Custody

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-10720-1
SDG Number: 20-0100-05

Login Number: 10720
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

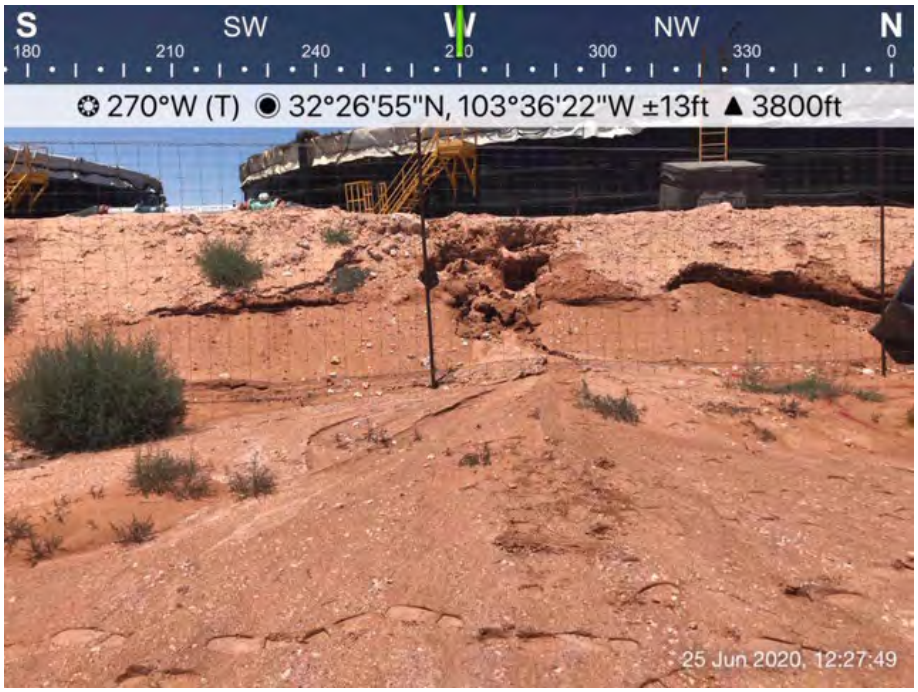
Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
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	

Appendix E

Photographs

Tracking Number: nRM2019638426
Closure Report
Dagger State Com #504H
Produced Water Spill
April 28, 2022

Spill area adjacent to pond viewing north



Spill area on earthen embankment viewing west

Tracking Number: nRM2019638426
Closure Report
Dagger State Com #504H
Produced Water Spill
April 28, 2022

Spill on earthen embankment and liner viewing south

Spill area on liner viewing northwest/north

Tracking Number: nRM2019638426
Closure Report
Dagger State Com #504H
Produced Water Spill
April 28, 2022

Spill area on liner viewing west

Spill area on liner viewing west

Tracking Number: nRM2019638426
Closure Report
Dagger State Com #504H
Produced Water Spill
April 28, 2022

Flowback equipment within spill area viewing east/southeast

High pressure lay flat lines within spill area viewing southeast

Tracking Number: nRM2019638426
Closure Report
Dagger State Com #504H
Produced Water Spill
April 28, 2022

Excavated area viewing northwest

Excavated area viewing southwest

Tracking Number: nRM2019638426
Closure Report
Dagger State Com #504H
Produced Water Spill
April 28, 2022

Additional excavated area viewing south

Additional excavated area viewing southwest

Tracking Number: nRM2019638426
Closure Report
Dagger State Com #504H
Produced Water Spill
April 28, 2022

Additional excavated area viewing west

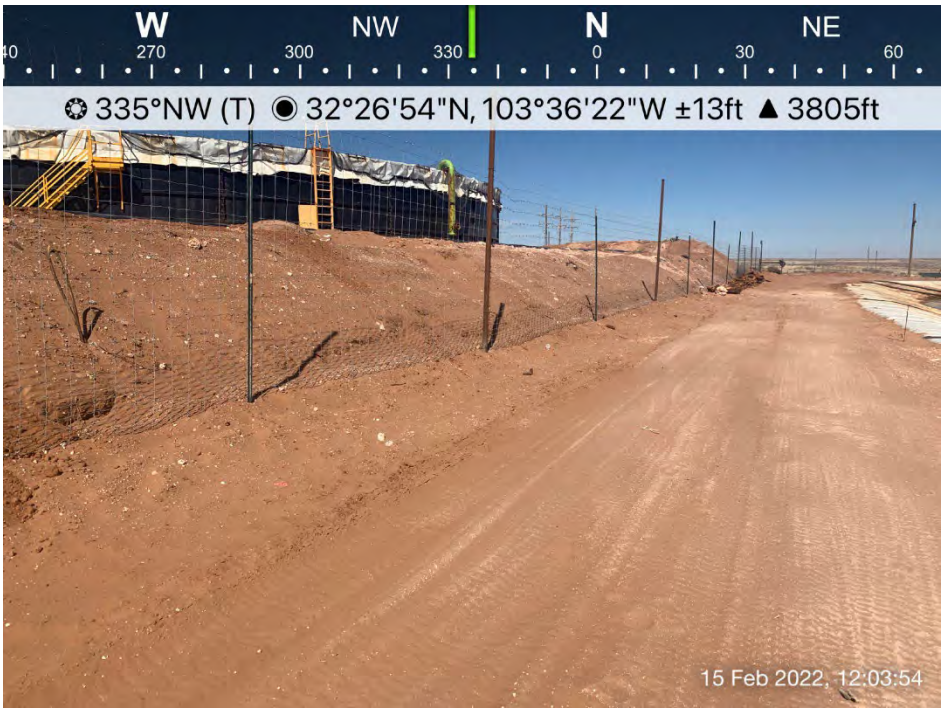
Additional excavated area viewing northwest

Tracking Number: nRM2019638426
Closure Report
Dagger State Com #504H
Produced Water Spill
April 28, 2022

Additional excavated area viewing northwest

Backfilled excavation area viewing southwest

Tracking Number: nRM2019638426
Closure Report
Dagger State Com #504H
Produced Water Spill
April 28, 2022



Backfilled excavation area viewing northwest

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 102558

CONDITIONS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	OGRID: 372417
	Action Number: 102558
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Deferral Request Approved.	5/20/2022