	Page 1 of 21	13
Incident ID	nRM2019638426	
District RP		
Facility ID		
Application ID		

Site Assessment/Characterization

This information must be provided to the appropriate district office no taler 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 X No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	Yes X 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 X No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	Yes X 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 X No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	Yes X No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	Yes X No
Are the lateral extents of the release within 300 feet of a wetland?	Yes X No
Are the lateral extents of the release overlying a subsurface mine?	Yes X No
Are the lateral extents of the release overlying an unstable area such as karst geology?	Yes X No
Are the lateral extents of the release within a 100-year floodplain?	Yes X No
Did the release impact areas not on an exploration, development, production, or storage site?	Yes X No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
Characterization Report Checklist: Each of the following items must be included in the report.	

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

Received by OCD: 4/28/2022 2:31:37 PM Form C-141 State of New Mexico Oil Conservation Division Page 4

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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	e:Env. Scientist					
Signature: March oshor	Date:04/28/2022					
email: aparker@advanceenerypartners.com	Telephone: 970-570-9535					
OCD Only						
Received by:	Date:					

	Page 3 of 213	3
Incident ID	nRM2019638426	
District RP		
Facility ID		
Application ID		

Remediation Plan

Remediation Plan Checklist: Each of the following items must be it	included in the plan.
 Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12 Proposed schedule for remediation (note if remediation plan timel 	
Deferral Requests Only: Each of the following items must be confi	rmed as part of any request for deferral of remediation.
Z Contamination must be in areas immediately under or around production.	duction equipment where remediation could cause a major facility
Z 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 rules and regulations all operators are required to report and/or file cer which may endanger public health or the environment. The acceptance liability should their operations have failed to adequately investigate a surface water, human health or the environment. In addition, OCD acresponsibility for compliance with any other federal, state, or local law	retain release notifications and perform corrective actions for releases be of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, receptance of a C-141 report does not relieve the operator of
Printed Name: Andrew Parker Title: E	Env. Scientist
Signature:	Date:04/28/2022
email: aparker@advanceenergypartners.com	Telephone: <u>970-570-9535</u>
OCD Only	
Received by:	Date:
☐ Approved	pproval
Signature: Jennifer Nobui	Pate: 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 This Page Intentionally Left Blank

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Aerial Map Showing Excavation Area and Confirmation Samples

Aerial Map Showing Temporary Well Location

Appendices

Figure 3 Figure 4

Appendix A Initial C-141
Appendix B Well Log and Plugging Record
Appendix C Karst Potential Map
Appendix D Laboratory Reports
Appendix E Photographs

Tracking Number: nRM2019638426
Closure Report
Dagger State Com #504H
Produced Water Spill
April 28, 2022

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

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• 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

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7,960

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

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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"

Page 1 of 2

Name	Sample	Depth	Collection	Status	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	CI-
S-1 0.5 6/25/2020 In-Situ <0.00100	•	•	Date		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
1 6/25/2020 In-Situ <0.00109 <27.2 <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 <0.00102 <0.00112 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1 <28.1<	Remediatio	n Level:			10	50				100/2,500	600/20,000
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 5-2 0.5 6/25/2020 In-Situ <0.00102 <0.00112 <28.1 <28.1 <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 <0.00109 <0.00109 50.8 34.8 56.7 142 7,500 5-3 0.5 6/25/2020 In-Situ <0.00109 <0.00109 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2	S-1	0.5	6/25/2020	In-Situ	<0.00110	<0.00100	<27.5	38.9	<27.5	38.9	9,720
S-2		1	6/25/2020	In-Situ	<0.00109	<0.00109	<27.2	<27.2	<27.2	<27.2	9,530
5-2 8/28/2020 In-Situ 50.1 5-2 0.5 6/25/2020 In-Situ <0.00112		1	8/28/2020	In-Situ	<0.00108	<0.00108	<26.9	43.8	108	152	7,970
S-2 0.5 6/25/2020 In-Situ <0.00112		3	8/28/2020	In-Situ	<0.00108	<0.00108	<26.9	50.6	<26.9	50.6	702
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 5-3 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 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 <26.3 <26.3 <26.9		5	8/28/2020	In-Situ							50.1
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S-3 8/28/2020 In-Situ <0.00111		1	6/25/2020	In-Situ	<0.00109	<0.00109	45.1	60.8	71.7	178	8,020
S-3 0.5 6/25/2020 In-Situ <0.00109		1	8/28/2020	In-Situ	<0.00108	<0.00108	<26.9	<26.9	91.5	91.5	7,250
1 6/25/2020 In-Situ <0.00109 <0.00109 <27.2 <27.2 <27.2 <27.2 <27.2 <27.2 57,720 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 <26.9 1 6/25/2020 In-Situ <0.00108 <0.00108 <26.9 <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 <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 <25.0 63.5 1 6/25/2020 In-Situ <0.00100 <0.00100 <25.0 <25.0 <25.0 <25.0 <25.0 10.5		3	8/28/2020	In-Situ	<0.00111	<0.00111	<27.8	31.6	50.9	82.6	364
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S-4 0.5 6/25/2020 In-Situ <0.00108		1	6/25/2020	In-Situ	<0.00109	<0.00109	<27.2	<27.2	<27.2	<27.2	7,720
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 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <th></th> <th>1</th> <th>8/28/2020</th> <th>In-Situ</th> <th><0.00105</th> <th><0.00105</th> <th><26.3</th> <th><26.3</th> <th><26.3</th> <th><26.3</th> <th>577</th>		1	8/28/2020	In-Situ	<0.00105	<0.00105	<26.3	<26.3	<26.3	<26.3	577
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 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <th></th> <th></th> <th>2/27/2222</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>			2/27/2222								
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 <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 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0	S-4										-
3 8/28/2020 In-Situ <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 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0											-
1 6/25/2020 In-Situ <0.00100 <0.00100 <25.0 <25.0 <25.0 <25.0 10.5											-
1 6/25/2020 In-Situ <0.00100 <0.00100 <25.0 <25.0 <25.0 <25.0 10.5											
	S-5	0.5		In-Situ	< 0.00100	< 0.00100	<25.0	<25.0	<25.0	<25.0	63.5
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	10.5
■ N=D U	S 6	0.5	6/25/2020	In City	<0.00100	<0.00100	√2F 0	∠2E 0	√2F 0	<25 O	17.7
1 6/25/2020 In-Situ <0.00100 <0.00100 <25.0 <25.0 <25.0 <25.0 <47.7	3-6										
		<u> </u>	3, 23, 2020	III Situ	10.00100	10.00100	123.0	123.0	123.0	123.0	10.7

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"

Page 2 of 2

Sample	Depth	Collection	Status	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Cl-
	(Feet)	Date		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Remediatio	n 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	100/2,500 600/20,00				
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

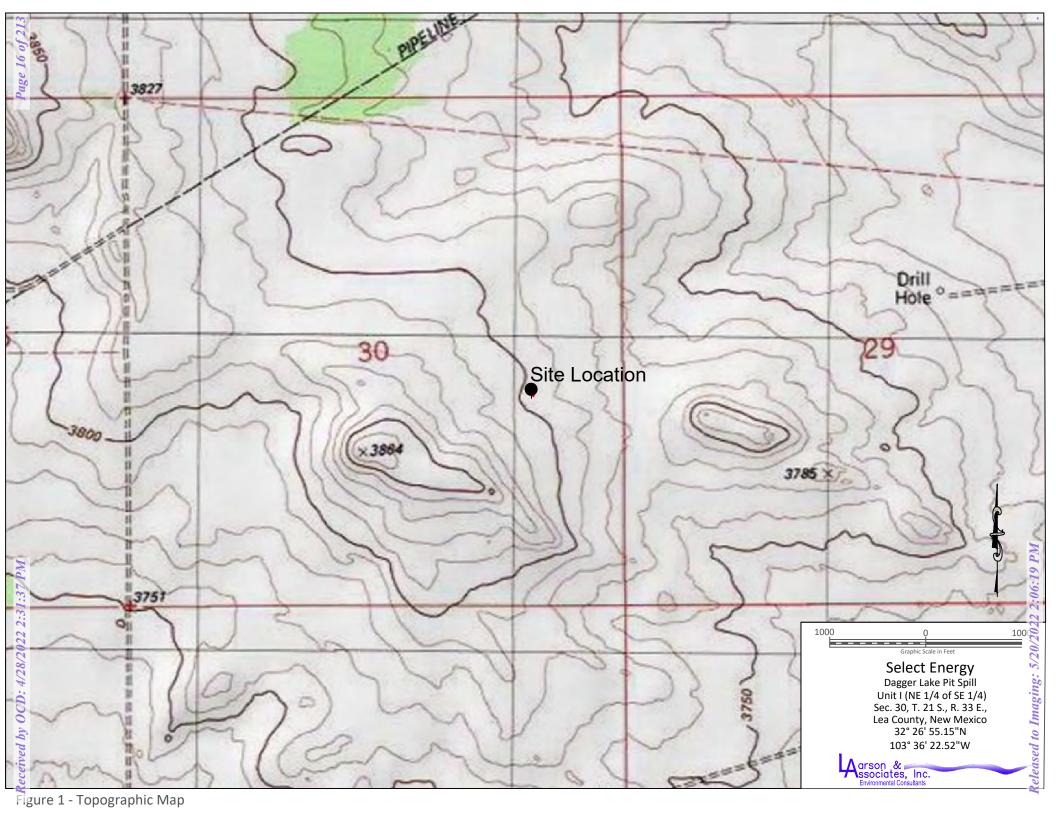




Figure 2a - Zoomed in Aerial Map

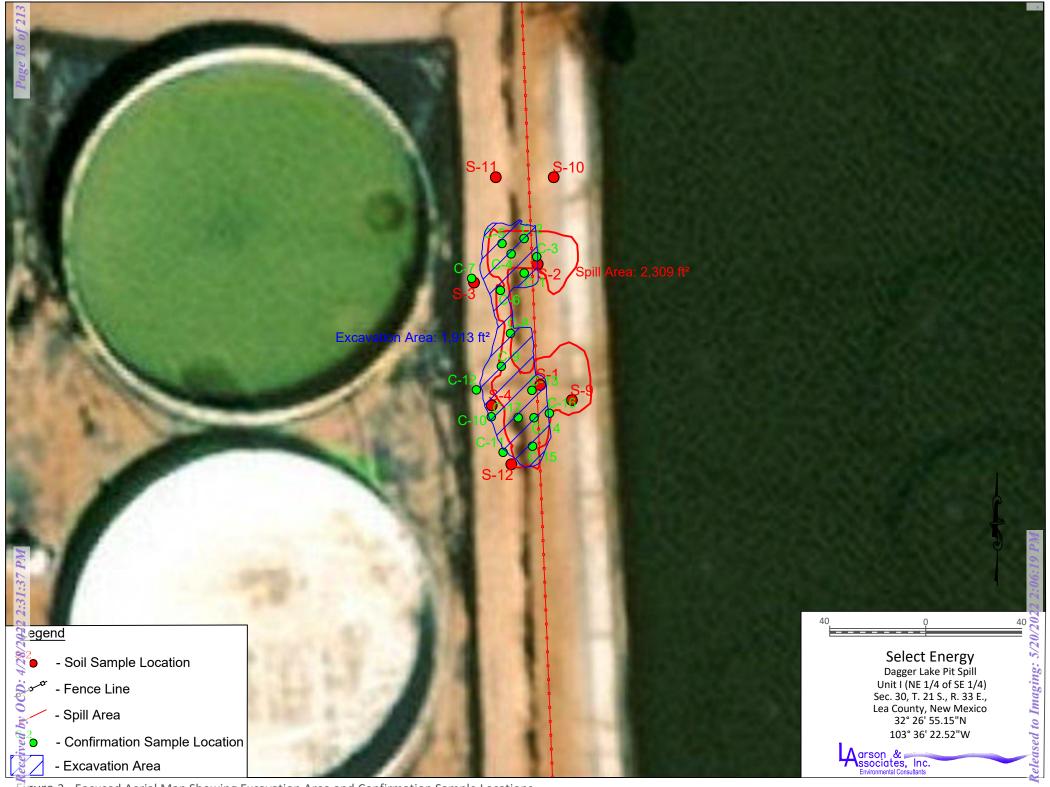


Figure 3 - Focused Aerial Map Showing Excavation Area and Confirmation Sample Locations



Figure 4 - Aerial Map Showing TMW-1

Appendix A

Initial C-141

Page 21eof 213

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
Ι	30	21S	33E	Lea

Surface Owner:
☐ State ☐ Federal ☐ Tribal ☐ Private

Nature and Volume of Release

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: Failur	e to shut valve on layflat flowline. Produced water was	s being transferred from the Dagger Recycling							
Containment to Goodnigh	t Midstream's saltwater gathering system. Ninety barr	rels (90 bbls) of the release was contained on a synthetic							
liner associated with adjace		,							
	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.								

Received by OCD: 4/28/2022/2:31:37 PM State of New Mexico
Page 2 Oil Conservation Division

\boldsymbol{P}	age	22 e0	F2	13
		3	V	

Incident ID NRM2019638426
District RP
Facility ID
Application ID

Was this a major release? release as defined by 19.15.29.7(A) NMAC? 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.
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 <u>not</u> 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
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
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
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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 (R.T. Hicks Consultants) Title: Sr. Env. Specialist
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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 (R.T. Hicks Consultants) Title: Sr. Env. Specialist
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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							
Julput		[gal]	418.3							
		Barrels	10.0							

Appendix B

Well Log and Plugging Record



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

Groon Middle

TERF OTT MOULE PRODUCERATED



	OSE POD NO. ()		TAG ID NO.		OSE FIL	,	S).			
S S	POD1 (TW-1)						CP-1882					
AND WELL LOCATION	WELL OWNER NAME(S) Advanced Energy Partners						PHONE					
Š							832.67	2.470				
1	WELL OWNER MAILING ADDRESS 11490 Westheimer Rd. Stuit 950						CITY			STATE TX	77077	ZIP
W.E.	11490 Wesu	ieimer K	.a. Stuff 950				Housto	м		17	77077	
8	WELL		DE	REES MINUTES SECONDS								
MLA	LOCATION	LAT	TTUDE	32 2	27 7	.70 N			REQUIRED: ONE TEN	TH OF A S	ECOND	
ER	(FROM GPS)	LON	GITUDE	103	36 1	7.7 W	* DATU	JM REC	QUIRED: WGS 84			
GENERAL	DESCRIPTION	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE										
-	SE SE NE S	ec. 30 T	21S R33E									
	T TOTAL STO		NAME OF LICENSED	DDW Y PR					NAME OF WELL DR	II I INC C	OMBANIV	
	LICENSE NO. 1249		NAME OF LICENSED		D. Atkins						Associates, I	nc.
	DRILLING STA	PTED	DRILLING ENDED	DEPTH OF COMPLETE	D WELL (EL)	BORE HO	LE DEPTH	(FT)	DEPTH WATER FIRE	ST ENCOL	INTERED (FT)	
	10/06/20		10/07/2021	temporary we	• •	The second second	106			n/a	C. C	
			ARTESIAN	DRY HOLE		-		-	STATIC WATER LEV	EL IN CO	MPLETED WE	LL (FT)
z	COMPLETED	SHALLOW (UNC	CONFINED)									
OLL	DRILLING FLUID: AIR MUD ADDITIVES – SPECIFY:											
MA.	DRILLING ME	THOD.	ROTARY	HAMMER [CABLE TOOL	▼ OTHE	R – SPECI	FY:	Hollo	w Stem	Auger	
CASING INFORMATION						TAL AND/OD						
Z	FROM TO DIAM (inches)			I GRADE I		CASING NNECTION TYPE				CASING WALL SL THICKNESS SIZE		
ING			(include each casing string, and							nches)	SIZE (inches)	
CAS	0	106	±6.5			(add coup	(add coupling diameter)		(menes)			
8	U	100	±0.5	Boring- HSA								
Ž		_								-	-	-
RIL												
2. DRILLING &												
										11		
	DEPTH (f	eet bøl)	BORE HOLE	I IST AND	NIII.AR SEAL M	ATERIAL A	AND		AMOUNT		МЕТИО	D OF
¥	FROM	TO	DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AT GRAVEL PACK SIZE-RANGE BY INTER					(cubic feet)		METHOD OF PLACEMENT	
ERI,	TROM	10										
IAT												
RR												
ULA												
ANNULAR MATERIAL									The Park Seed Seed		The sea	1275
3. A											\$100m pt _{ate}	Contract of the Contract of th
FOR	OSE INTERN	AL USE						WR-2	0 WELL RECORD	& LOG (Version 06/30	0/17)
FILI	E NO.				POD NO.			TRN 1	10 .			

PAGE 1 OF 2 LOCATION WELL TAG ID NO.

	DEPTH (i	eet bgl)		COLOR AN	D TYPE OF MATERIAL E	NCOUN	TERFO -		WAT	TD	ESTIMATED
	FROM	то	THICKNESS (feet)	INCLUDE WATE	R-BEARING CAVITIES Option of the state of th	R FRAC	TURE ZONE	s	BEAR! (YES/	ING?	YIELD FOR WATER- BEARING ZONES (gpm)
	0	9	9	Sa	nd, Fine-grained, poorly grad	led, Red			Y	√ N	
	9	19	10	Calie	che, with fine-grained sand,	White/Ta	n		Y	✓ N	
	19	69	50	Sand, Fine-grained, poorly graded, Tan/ Brown					Y	√ N	
	69	79	10	Sand, Fine-gr	ained, poorly graded with cl	ay, Redd	ish Brown		Y	√ N	
	79	106	27	Clay, Stiff, con	solidated, with fine-grained s	and, Rec	ldish Brown		Y	√ N	
L									Y	N	
VEL									Y	N	
OF V									Y	N	
90									Y	N	
CL									Y	N	
ĐQ.									Y	N	
EOL									Y	N	
4. HYDROGEOLOGIC LOG OF WELL									Y	N	
[XD]									Y	N	
4. H									Y	N	
									Y	N	
									Y	N	
									Y	N	
									Y	N	
									Y	N	
P									Y	N	
	METHOD U	SED TO E	STIMATE YIELD	OF WATER-BEARING	G STRATA:				L ESTIM L YIELD		0.00
	PUM	P	IR LIFT	BAILER OT	HER - SPECIFY:			WEL		(врш).	0.00
N.	WELL TES	TEST STAR	RESULTS - ATT	ACH A COPY OF DAT ME, AND A TABLE SH	A COLLECTED DURING HOWING DISCHARGE AN	WELL T	ESTING, INC	CLUDIN ER THE	IG DISCH	IARGE I G PERIC	METHOD, DD.
TEST; RIG SUPERVISION	MISCELLA	NEOUS IN	FORMATION: _{Te}	emporary well materia et below ground surfa	als removed and the soil buce, then hydrated bentoni	oring b	ackfilled using from ten fe	ng drill et belov	cuttings v ground	from to	tal depth to ten to surface.
LEST	PRINT NAM	(E(S) OF D	RILL RIG SUPER	RVISOR(S) THAT PRO	VIDED ONSITE SUPERVI	SION O	F WELL CON	STRUC	TION OT	THER TH	IAN LICENSEE:
5. 1			elo Trevino, Car				1,000				
SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, TO CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:								E FORE	GOING I	IS A TRUE AND ATE ENGINEER
6. SIGN	Jack Ath	éins		Jac	ckie D. Atkins				10/28	2021	
•	i.	SIGNAT	TURE OF DRILLE	ER / PRINT SIGNEE	NAME					DATE	
FO	Ogb Pares	NIAT LISTS					WR-20 WE	II.REC	י & חאטי	OG (Va	rsion 06/30/2017
	R OSE INTER E NO.	NAL USE			POD NO.		TRN NO.	انلہ بید	, J. (L.) 0. I	200 (10	151011 00/30/2017
-	CATION					WEII	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_msszUkFnzTQWpA1ol8YdAXL

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

- 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

USE UIT NOU 1 2021 P 4143





PLUGGING RECORD



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

	ENERAL / WELL OWNE									
State 1	Engineer Well Number: C	P-1882-POD1					31			
Well owner: Advanced Energy Partners					Phone No.: 832.672.4700					
Maili	ng address: 11490 Westhe	imer Rd. Stuit 95	50							
City:	Houston		State:	2	Texas		Zip code:	77077		
II. W	ELL PLUGGING INFO	RMATION:								
1)	Name of well drilling co	ompany that plus	gged well: _	Jackie D. /	Atkins (Atkins E	ngineering	Associates I	пс.)		
2)	New Mexico Well Drill									
3)	Well plugging activities Shane Eldridge, Carme			wing wel	l driller(s)/rig s	upervisor(s	s): ₌			
4)	Date well plugging bega	an: 10/14/202	1	_ Date	well plugging o	oncluded:	10/14/202	1		
5)	GPS Well Location:	Latitude: Longitude: _		deg, deg,	27 min, 36 min,	7.70	_ sec _ sec, WGS	84		
6)	Depth of well confirmed by the following manne	d at initiation of weighted tape	plugging as:	106	ft below gro	und level ((bgl),			
7)	Static water level measu	ared at initiation	of plugging:	n/a	ft bgl					
8)	Date well plugging plan	of operations w	as approved	by the Sta	ate Engineer: _	07/08/202 ⁻	1			
9)	Were all plugging active differences between the	ities consistent v approved plugg	vith an appro ing plan and	ved plugg the well a	ging plan? s it was plugge	Yes d (attach a	If not, p	olease describe es as needed):		
l.							SI UE NEG	12021 246.65		
								The second of decays		

Version: September 8, 2009 Page 1 of 2

Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with 10) 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 <u>Material Used</u> (include any additives used)	Volume of <u>Material Placed</u> (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			
<u>-</u> - -	10'-106' Drill Cuttings	Approx. 152 gallons	152 gallons	Boring			
-							
- - - - - - -							
-				000	2 - 1		
1		MULTIPLY E cubic feet x 7.4	BOS = gallons	San San San	DJ NGU 1 (202), pm2143		

201.97 = gallons cubic yards

III. SIGNATURE:

										the State
Engineer pertaining to the plugging of wells and that ea are true to the best of my knowledge and belief.	ch ar	nd all	of the	stateme	nts in t	this Pl	ugging	Recor	d and att	achments
Jack Atki	rs								10/29/2	2021

Signature of Well Driller

Version: September 8, 2009 Page 2 of 2

Date

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

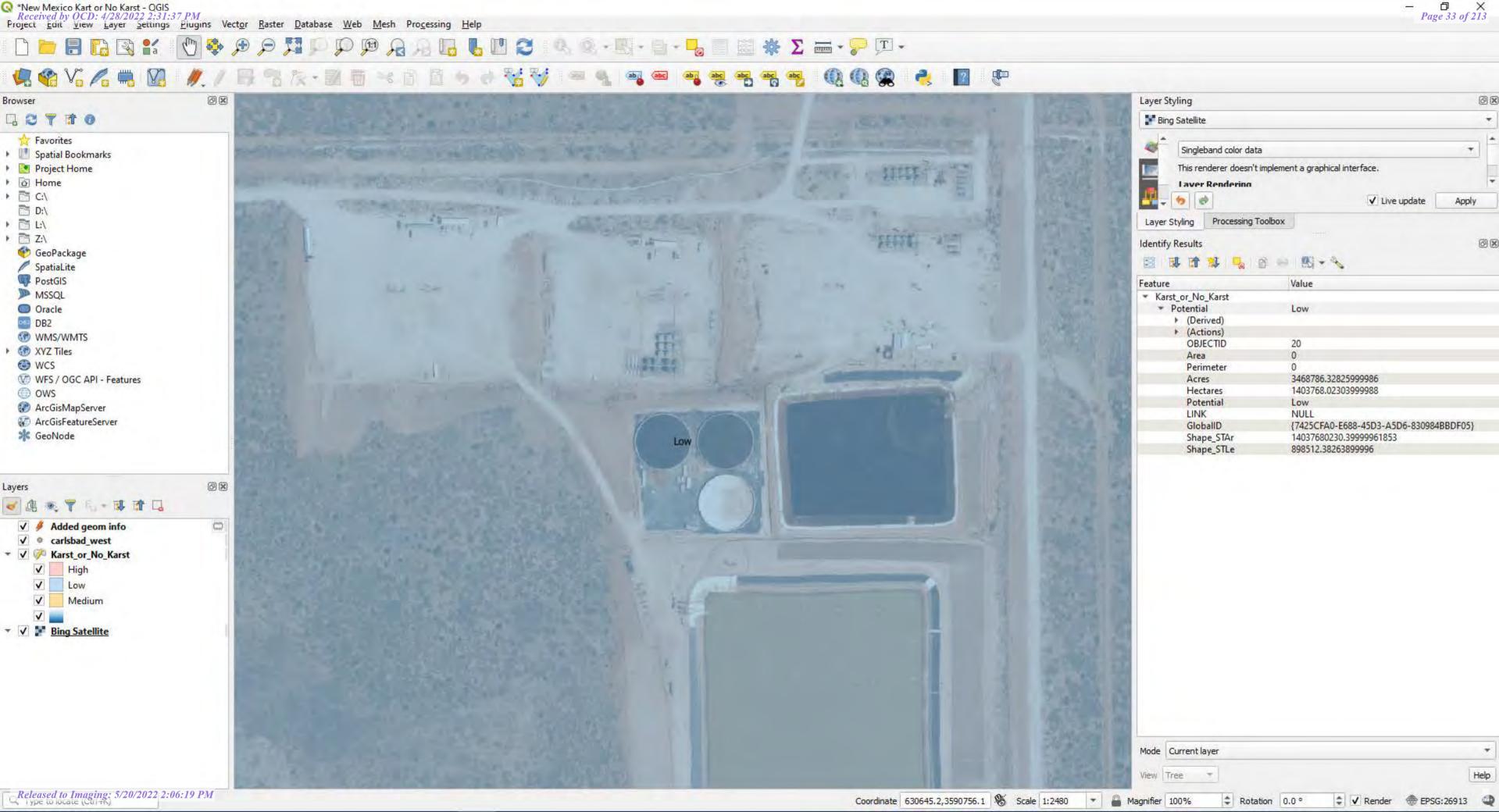
 Signature Date: 2021-10-29 4:17:17 PM GMT Time Source: server- IP address: 64.90.153.232
- Agreement completed. 2021-10-29 - 4:17:17 PM GMT

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Appendix C

Karst Risk Potential



Appendix D

Laboratory Reports

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



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/TCEQ # T104704516-17-8

Report Date: 07/05/20

Larson & Associates, Inc.Project:Dagger Lake PitP.O. Box 50685Project Number:20-0100-05Midland TX, 79710Project 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

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

> S-1 @ 0.5' 0F26003-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		nian Basin E				1	,		
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 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		96.1 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by E	PA / Standard Method	ls							
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-C	35 by EPA Method 80	15M							
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 %	70-1	30	P0F2606	06/26/20	06/26/20	TPH 8015M	
Surrogate: o-Terphenyl		101 %	70-1	30	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	

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

> S-1 @ 1' 0F26003-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Per	mian Basin E	Environmer	ıtal Lab, l	P.				
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 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		99.2 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA / Stat	ndard Metho	ds							
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 E	PA Method 80)15M							
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 %	70-1	30	P0F2606	06/26/20	06/26/20	TPH 8015M	
Surrogate: o-Terphenyl		103 %	70-1	30	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	

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

> S-2 @ 0.5' 0F26003-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perr	nian Basin F	Environme	ntal Lab, l	L .P.				
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 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.3 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
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 l	oy EPA Method 80	15M							
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 %	70-1	30	P0F2606	06/26/20	06/26/20	TPH 8015M	
Surrogate: o-Terphenyl		104 %	70-1	30	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	

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

> S-2 @ 1' 0F26003-04 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
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 %	75-12	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		96.2 %	75-12	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by E	PA / Standard Method	ls							
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-C	C35 by EPA Method 80	15M							
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 %	70-1.	30	P0F2606	06/26/20	06/29/20	TPH 8015M	
Surrogate: o-Terphenyl		100 %	70-1.	30	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	

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

> S-3 @ 0.5' 0F26003-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmer	ntal Lab, l	L .P.				
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 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.9 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EF	PA / Standard Method	ls							
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-C3	35 by EPA Method 80	15M							
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 %	70-1	30	P0F2606	06/26/20	06/29/20	TPH 8015M	
Surrogate: o-Terphenyl		98.1 %	70-1	30	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	

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

> S-3 @ 1' 0F26003-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perr	nian Basin I	Environme	ntal Lab, l	L .P.				
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 %	75-1	25	P0F2905	06/29/20	07/01/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.8 %	75-1	25	P0F2905	06/29/20	07/01/20	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
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 b	oy EPA Method 80	015M							
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 %	70-1	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-1	30	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	

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

> S-4 @ 0.5' 0F26003-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	L .P.				
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 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.4 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	s							
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 l	by EPA Method 80	15M							
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 %	70-1	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-1	30	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	

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

> S-4 @ 1' 0F26003-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	nian Basin I	Environmer	ıtal Lab, l	L .P.				
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 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.8 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	s							
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 l	by EPA Method 80	15M							
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 %	70-1	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		105 %	70-1	30	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	

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

> S-5 @ 0.5' 0F26003-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmer	ıtal Lab, l	L .P.				
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 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	75-1	25	P0F2905	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	s							
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 b	oy EPA Method 80	15M							
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 %	70-1	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		99.1 %	70-1	30	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	

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

> S-5 @ 1' 0F26003-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin I	Environmer	ıtal Lab, l	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		90.1 %	75-1	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		96.1 %	75-1	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	S							
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 80	15M							
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 %	70-1	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		102 %	70-1	30	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	

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

> S-6 @ 0.5' 0F26003-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	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		96.1 %	75-1.	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.0 %	75-1.	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA /	Standard Method	s							
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 b	y EPA Method 80	15M							
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 %	70-1.	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		101 %	70-1.	30	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	

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

> S-6 @ 1' 0F26003-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	Environmen	tal Lab, I	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 %	75-1.	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		97.0 %	75-1.	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA/	Standard Method	S							
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 b	y EPA Method 801	15M							
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 %	70-1.	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		102 %	70-1.	30	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	

P.O. Box 50685 Project Number: 20-0100-05 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
	Peri	nian Basin E	Environme	ntal Lab, l	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 %	75-1	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.1 %	75-1	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
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 l	oy EPA Method 80)15M							
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 %	70-1	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		95.9 %	70-1	30	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	

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
	Pern	nian Basin F	Environme	ntal Lab, l	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 %	75-1	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		89.2 %	75-1	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
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 b	oy EPA Method 80	15M							
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 %	70-1	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		101 %	70-1	30	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	

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

> S-8 @ 0.5' 0F26003-15 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Environmer	ıtal Lab, l	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 %	75-1	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.1 %	75-1	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
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 l	oy EPA Method 80	15M							
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 %	70-1	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-1	30	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	

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

> S-8 @ 1' 0F26003-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Peri	nian Basin E	Environmen	tal Lab, l	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		96.1 %	75-12	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.1 %	75-12	25	P0F2907	06/29/20	06/30/20	EPA 8021B	
General Chemistry Parameters by EPA / St	andard Method	ls							
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 1	EPA Method 80	15M							
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 %	70-13	30	P0F2606	06/26/20	06/27/20	TPH 8015M	
Surrogate: o-Terphenyl		102 %	70-13	30	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

P.O. Box 50685 Project Number: 20-0100-05 Midland TX, 79710 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
-	1105411	Zimit	- Cinco	20.01	1100011	, , , ,	Ziiiii		2	1,000
Batch P0F2905 - General Preparation (GC)										
Blank (P0F2905-BLK1)				Prepared: 0	06/29/20 Ar	nalyzed: 06	5/30/20			
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: 0	06/29/20 Ar	nalyzed: 06	5/30/20			
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: 0	06/29/20 Ar	nalyzed: 06	5/30/20			
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: 0	06/29/20 Ar	nalyzed: 06	5/30/20			
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			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc.

Project: Dagger Lake Pit

P.O. Box 50685 Project Number: 20-0100-05 Midland TX, 79710 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 P0F2905 - General Preparation (GC	C)									
Calibration Blank (P0F2905-CCB2)				Prepared: 0	06/29/20 At	nalyzed: 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: 0	06/29/20 At	nalyzed: 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: 0	06/29/20 At	nalyzed: 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: 0	06/29/20 At	nalyzed: 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			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: Dagger Lake Pit

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

BTEX by 8021B - Quality Control Permian Basin Environmental Lab, L.P.

	D 1	Reporting	TT :	Spike	Source	0/DEC	%REC	DDD	RPD	N
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0F2905 - General Preparation (GC)										
Calibration Check (P0F2905-CCV3)				Prepared: 0	06/29/20 A	nalyzed: 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)	Sou	rce: 0F26003	-01	Prepared: 0	06/29/20 At	nalyzed: 06	/30/20			
Benzene	0.0778	0.00110	mg/kg dry	0.110	ND	70.8	80-120			QM-0
Toluene	0.0679	0.00110	"	0.110	ND	61.8	80-120			QM-0
Ethylbenzene	0.0606	0.00110	"	0.110	ND	55.2	80-120			QM-0
Xylene (p/m)	0.158	0.00220	"	0.220	ND	71.9	80-120			QM-0
Xylene (o)	0.0859	0.00110	"	0.110	ND	78.2	80-120			QM-0
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)	Sou	rce: 0F26003	-01	Prepared: 0	06/29/20 A	nalyzed: 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-0
Ethylbenzene	0.0733	0.00110	"	0.110	ND	66.7	80-120	19.0	20	QM-0
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: 0	06/29/20 At	nalyzed: 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			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc.

Project: Dagger Lake Pit

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

BTEX by 8021B - Quality Control Permian Basin Environmental Lab, L.P.

Austral	D 1	Reporting	TT''	Spike	Source	0/BEC	%REC	DPD	RPD	NT 4
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0F2907 - General Preparation (C	GC)									
LCS (P0F2907-BS1)				Prepared: 0	06/29/20 Aı	nalyzed: 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: 0	06/29/20 Aı	nalyzed: 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: 0	06/29/20 Aı	nalyzed: 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: 0	06/29/20 Aı	nalyzed: 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			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: Dagger Lake Pit

Reporting

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

0.104

0.117

0.112

0.00100

Fax: (432) 687-0456

RPD

%REC

BTEX by 8021B - Quality Control Permian Basin Environmental Lab, L.P.

Spike

Source

		Reporting		Spike	Source		/OKEC		KrD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0F2907 - General Preparation (GC)									
Calibration Blank (P0F2907-CCB3)				Prepared: (06/29/20 At	nalyzed: 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 A	nalyzed: 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 At	nalyzed: 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 A	nalyzed: 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			

Permian Basin Environmental Lab, L.P.

Xylene (o)

Surrogate: 4-Bromofluorobenzene Surrogate: 1,4-Difluorobenzene

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

104

97.8

93.2

80-120

75-125

75-125

0.100

0.120

0.120

Larson & Associates, Inc.

Project: Dagger Lake Pit
P.O. Box 50685

Project Number: 20-0100-05

0.123

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

BTEX by 8021B - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Matrix Spike (P0F2907-MS1)	Sour	Source: 0F26003-10 Pr			6/29/20 A	nalyzed: 07	7/01/20			
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)	Sour	ce: 0F26003	-10	Prepared: 0	6/29/20 A	nalyzed: 07	7/01/20			
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			

0.120

103

75-125

Surrogate: 1,4-Difluorobenzene

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.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	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: 0	06/26/20 At	nalyzed: 06	/27/20			
Chloride	21.0		mg/kg	20.0		105	0-200			
Matrix Spike (P0F2608-MS1)	Sou	rce: 0F24014	-02	Prepared &	Analyzed:	06/26/20				
Chloride	14300	27.2	mg/kg dry	2720	11100	117	80-120			
Matrix Spike (P0F2608-MS2)	Sou	rce: 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)	Sou	rce: 0F24014	-02	Prepared &	Analyzed:	06/26/20				
Chloride	13900	27.2	mg/kg dry	2720	11100	102	80-120	3.06	20	

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.

B 1		** **	-		A/BEG		D.D.D.		NT .
Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Sour	ce: 0F25004-	-10	Prepared &	Analyzed:	06/26/20				
559	1.12	mg/kg dry	562	36.5	93.0	80-120	1.34	20	
			Prepared: (06/27/20 A	nalyzed: 06	/29/20			
ND	0.1	%							
Sour	ce: 0F26003-	-14	Prepared: (06/27/20 A	nalyzed: 06	/29/20			
ND	0.1	%		ND				20	
Sour	ce: 0F26010-	·11	Prepared: (06/27/20 A	nalyzed: 06	/29/20			
6.0	0.1	%		6.0			0.00	20	
Sour	ce: 0F26010-	-38	Prepared: (06/27/20 A	nalyzed: 06	/29/20			
3.0	0.1	%		3.0			0.00	20	
Sour	ce: 0F26015-	-11	Prepared: (06/27/20 A	nalyzed: 06	/29/20			
ND	0.1	%		ND				20	
			Prepared &	z Analyzed:	06/29/20				
408	1.00	mg/kg wet	400		102	80-120			
			Prepared &	k Analyzed:	06/29/20				
407	1.00	mg/kg wet	400		102	80-120	0.260	20	
	559 ND Sout 6.0 Sout 3.0 Sout ND 408	Source: 0F25004-	ND 0.1 %	Source: 0F25004-10	ND				

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.

		Reporting		Spike	Source		%REC		RPD	·
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	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)	Sour	ce: 0F26003	-06	Prepared &	& Analyzed:	06/29/20				
Chloride	8900	10.9	mg/kg dry	1090	7720	108	80-120			
Matrix Spike (P0F2901-MS2)	Sour	ce: 0F26003	-16	Prepared &	& Analyzed:	: 06/29/20				
Chloride	516	1.00	mg/kg dry		29.5		80-120			QM-0
Matrix Spike Dup (P0F2901-MSD1)	Sour	rce: 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)	-16	Prepared &	& Analyzed:	: 06/29/20						
Chloride	485	1.00	mg/kg dry		29.5		80-120	6.12	20	QM-0

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.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	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 Aı	nalyzed: 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			

Permian Basin Environmental Lab, L.P.

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.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0F2606 - TX 1005										
Matrix Spike (P0F2606-MS1)	Source	ce: 0F26003	-16	Prepared: (06/26/20 A	nalyzed: 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	ce: 0F26003-	-16	Prepared: (06/26/20 A	nalyzed: 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			

Fax: (432) 687-0456 Larson & Associates, Inc. Project: Dagger Lake Pit

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

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS QM-07

recovery.

The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were QM-05

within acceptance limits showing that the laboratory is in control and the data is acceptable.

BULK Samples received in Bulk soil containers

Analyte DETECTED DET

Analyte NOT DETECTED at or above the reporting limit ND

NR Not Reported

Sample results reported on a dry weight basis dry

RPD Relative Percent Difference

LCS Laboratory Control Spike Matrix Spike

Dup Duplicate

MS

new Barron Report Approved By:

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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

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If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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



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



Current Certification

Report Date: 09/03/20

Larson & Associates, Inc.Project:Dagger Lake PitP.O. Box 50685Project Number:20-0100-05Midland TX, 79710Project Manager:Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1 @ 1'	0Н31003-01	Soil	08/28/20 10:37	08-31-2020 10:10
S-1 @ 3'	0Н31003-02	Soil	08/28/20 10:40	08-31-2020 10:10
S-1 @ 5'	0Н31003-03	Soil	08/28/20 10:42	08-31-2020 10:10
S-2 @ 1'	0Н31003-05	Soil	08/28/20 11:15	08-31-2020 10:10
S-2 @ 3'	0Н31003-06	Soil	08/28/20 11:17	08-31-2020 10:10
S-3 @ 1'	0Н31003-09	Soil	08/28/20 12:10	08-31-2020 10:10
S-4 @ 1'	0Н31003-13	Soil	08/28/20 12:40	08-31-2020 10:10
S-4 @ 3'	0Н31003-14	Soil	08/28/20 12:42	08-31-2020 10:10
S-9 @ 1'	0Н31003-17	Soil	08/28/20 11:00	08-31-2020 10:10
S-10 @ 1'	0Н31003-21	Soil	08/28/20 11:30	08-31-2020 10:10
S-11 @ 1'	0Н31003-25	Soil	08/28/20 12:20	08-31-2020 10:10
S-12 @ 1'	0Н31003-29	Soil	08/28/20 12:55	08-31-2020 10:10

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 Unit	s Dilution	Batch	Prepared	Analyzed	Method	Notes
		1	Permian Bas	in Environm	ental Lab, L.P.			
BTEX by 8021B								
Benzene	ND	0.00108 mg/kg	g dry 1	P0H3119	08/31/20 15:57	09/01/20 08:22	EPA 8021B	
Toluene	ND	0.00108 mg/kg	g dry 1	P0H3119	08/31/20 15:57	09/01/20 08:22	EPA 8021B	
Ethylbenzene	ND	0.00108 mg/kg	g dry 1	P0H3119	08/31/20 15:57	09/01/20 08:22	EPA 8021B	
Xylene (p/m)	ND	0.00215 mg/kg	g dry 1	P0H3119	08/31/20 15:57	09/01/20 08:22	EPA 8021B	
Xylene (o)	ND	0.00108 mg/kg	g 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 Parameter	s by EPA /	Standard Me	thods					
Chloride	7970	10.8 mg/kg	g dry 10	P0H3108	08/31/20 16:24	08/31/20 18:14	EPA 300.0	
% Moisture	7.0	0.1	b 1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbon	s C6-C35 b	y EPA Metho	d 8015M					
C6-C12	ND	26.9 mg/kg	g dry 1	P0H3113	08/31/20 13:30	08/31/20 16:50	TPH 8015M	
>C12-C28	43.8	26.9 mg/kg	g dry 1	P0H3113	08/31/20 13:30	08/31/20 16:50	TPH 8015M	
>C28-C35	108	26.9 mg/kg	g 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	g dry 1	[CALC]	08/31/20 13:30	08/31/20 16:50	calc	

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

> S-1 @ 3' 0H31003-02 (Soil)

Analyte	Result	Reporting Limit U	Jnits :	Dilution	Batch	Prepared	Analyzed	Method	Notes
			Permi	an Basii	n Environme	ntal Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00108 m	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Toluene	ND	0.00108 m	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Ethylbenzene	ND	0.00108 m	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Xylene (p/m)	ND	0.00215 m	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Xylene (o)	ND	0.00108 m	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		88.9 %	75-12	5	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		87.9 %	75-12	5	P0H3119	08/31/20 15:57	09/01/20 08:42	EPA 8021B	
General Chemistry Parameter	s by EPA/	Standard I	Methods						
Chloride	702	1.08 m	g/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 Hydrocarbon	s C6-C35 b	y EPA Met	hod 801:	5M					
C6-C12	ND	26.9 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:14	TPH 8015M	
>C12-C28	50.6	26.9 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:14	TPH 8015M	
>C28-C35	ND	26.9 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:14	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-13	0	P0H3113	08/31/20 13:30	08/31/20 17:14	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-13	0	P0H3113	08/31/20 13:30	08/31/20 17:14	TPH 8015M	
Total Petroleum	50.6	26.9 m	g/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 17:14	calc	
Hydrocarbon C6-C35									

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

> S-1 @ 5' 0H31003-03 (Soil)

	R	Reporting						
Analyte	Result	Limit Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

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

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

> S-2 @ 1' 0H31003-05 (Soil)

Analyte	Result	Reporting Limit U	Jnits D	ilution	Batch	Prepared	Analyzed	Method	Notes
			Permia	n Basi	n Environme	ntal Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00108 m	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:02	EPA 8021B	
Toluene	ND	0.00108 m	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:02	EPA 8021B	
Ethylbenzene	ND	0.00108 m	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:02	EPA 8021B	
Xylene (p/m)	ND	0.00215 m	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:02	EPA 8021B	
Xylene (o)	ND	0.00108 m	g/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 Parameter	s by EPA/	Standard N	Aethods						
Chloride	7250	10.8 m	g/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 Hydrocarbon	s C6-C35 b	y EPA Met	hod 8015	M					
C6-C12	ND	26.9 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:37	TPH 8015M	
>C12-C28	ND	26.9 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:37	TPH 8015M	
>C28-C35	91.5	26.9 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 17:37	TPH 8015M	
Surrogate: 1-Chlorooctane		119 %	70-130	1	Р0Н3113	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 m	g/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 17:37	calc	

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

> S-2 @ 3' 0H31003-06 (Soil)

Analyte	Result	Reporting Limit Uni	ts Dilution	Batch	Prepared	Analyzed	Method	Notes
			Permian Bas	in Environm	ental Lab, L.P.			
BTEX by 8021B								
Benzene	ND	0.00111 mg/k	g dry 1	P0H3119	08/31/20 15:57	09/01/20 09:23	EPA 8021B	
Toluene	ND	0.00111 mg/k	g dry 1	P0H3119	08/31/20 15:57	09/01/20 09:23	EPA 8021B	
Ethylbenzene	ND	0.00111 mg/k	g dry 1	P0H3119	08/31/20 15:57	09/01/20 09:23	EPA 8021B	
Xylene (p/m)	ND	0.00222 mg/k	g dry 1	P0H3119	08/31/20 15:57	09/01/20 09:23	EPA 8021B	
Xylene (o)	ND	0.00111 mg/k	g 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	Р0Н3119	08/31/20 15:57	09/01/20 09:23	EPA 8021B	
General Chemistry Parameter	s by EPA/	Standard Me	thods					
Chloride	364	1.11 mg/k	g dry 1	P0H3108	08/31/20 16:24	08/31/20 20:03	EPA 300.0	
% Moisture	10.0	0.1	6 1	P0I0105	09/01/20 11:08	09/01/20 11:24	ASTM D2216	
Total Petroleum Hydrocarbon	s C6-C35 b	y EPA Metho	d 8015M					
C6-C12	ND	27.8 mg/k	g dry 1	P0H3113	08/31/20 13:30	08/31/20 18:00	TPH 8015M	
>C12-C28	31.6	27.8 mg/k	g dry 1	P0H3113	08/31/20 13:30	08/31/20 18:00	TPH 8015M	
>C28-C35	50.9	27.8 mg/k	g 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	82.6	27.8 mg/k	g dry 1	[CALC]	08/31/20 13:30	08/31/20 18:00	calc	
Hydrocarbon C6-C35								

Larson & Associates, Inc. Project: Dagger Lake Pit

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

S-3 @ 1' 0H31003-09 (Soil)

Analyte	Result	Reporting Limit U	nits D	ilution	Batch	Prepared	Analyzed	Method	Notes
			Permia	n Basi	n Environme	ntal Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00105 mg	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:43	EPA 8021B	
Toluene	ND	0.00105 mg	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:43	EPA 8021B	
Ethylbenzene	ND	0.00105 mg	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:43	EPA 8021B	
Xylene (p/m)	ND	0.00211 mg	g/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 09:43	EPA 8021B	
Xylene (o)	ND	0.00105 mg	g/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 Parameter	s by EPA/	Standard N	1ethods						
Chloride	577	1.05 mg	g/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 Hydrocarbon	s C6-C35 b	y EPA Met	hod 8015	M					
C6-C12	ND	26.3 mg	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 18:24	TPH 8015M	
>C12-C28	ND	26.3 mg	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 18:24	TPH 8015M	
>C28-C35	ND	26.3 mg	g/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	g/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 18:24	calc	

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

S-4 @ 1' 0H31003-13 (Soil)

Analyte	Result	Reporting Limit U	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			Permi	an Basi	n Environme	ntal Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00103 m	ng/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Toluene	ND	0.00103 m	ng/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Ethylbenzene	ND	0.00103 m	ng/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Xylene (p/m)	ND	0.00206 m	ng/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Xylene (o)	ND	0.00103 m	ng/kg dry	1	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		85.0 %	75-12	25	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.7 %	75-12	25	P0H3119	08/31/20 15:57	09/01/20 10:24	EPA 8021B	
General Chemistry Parameter	s by EPA/	Standard 1	Methods						
Chloride	1630	1.03 m	ng/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 Hydrocarbon	s C6-C35 b	y EPA Met	thod 801:	5M					
C6-C12	ND	25.8 m	ng/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 19:33	TPH 8015M	
>C12-C28	78.2	25.8 m	ng/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 19:33	TPH 8015M	
>C28-C35	31.3	25.8 m	ng/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 19:33	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-13	0	P0H3113	08/31/20 13:30	08/31/20 19:33	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-13	0	P0H3113	08/31/20 13:30	08/31/20 19:33	TPH 8015M	
Total Petroleum	109	25.8 m	ng/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 19:33	calc	
Hydrocarbon C6-C35									

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

> S-4 @ 3' 0H31003-14 (Soil)

Analyte	Result	Reporting Limit U	Inits 1	Dilution	Batch	Prepared	Analyzed	Method	Notes
			Permi	an Basii	n Environme	ental Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00104 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Toluene	ND	0.00104 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Ethylbenzene	ND	0.00104 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Xylene (p/m)	ND	0.00208 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Xylene (o)	ND	0.00104 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.0 %	75-12	5	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		85.8 %	75-12	5	P0I0106	09/01/20 12:23	09/01/20 16:48	EPA 8021B	
General Chemistry Parameter	s by EPA/	Standard N	1ethods						
Chloride	9.48	1.04 m	g/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 Hydrocarbon	s C6-C35 b	y EPA Met	hod 8015	5M					
C6-C12	ND	26.0 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 20:43	TPH 8015M	
>C12-C28	ND	26.0 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 20:43	TPH 8015M	
>C28-C35	ND	26.0 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 20:43	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-13	0	P0H3113	08/31/20 13:30	08/31/20 20:43	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-13	0	P0H3113	08/31/20 13:30	08/31/20 20:43	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0 m	g/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 20:43	calc	

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

> S-9 @ 1' 0H31003-17 (Soil)

Analyte	Result	Reporting Limit U	Jnits I	Dilution	Batch	Prepared	Analyzed	Method	Notes
			Permi	an Basii	n Environme	ntal Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00109 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Toluene	ND	0.00109 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Ethylbenzene	ND	0.00109 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Xylene (p/m)	ND	0.00217 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Xylene (o)	ND	0.00109 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.5 %	75-12.	5	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.1 %	75-12.	5	P0I0106	09/01/20 12:23	09/01/20 17:09	EPA 8021B	
General Chemistry Parameter	s by EPA/	Standard N	Methods						
Chloride	75.8	1.09 m	g/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 Hydrocarbon	s C6-C35 b	y EPA Met	hod 8015	SM					
C6-C12	ND	27.2 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:06	TPH 8015M	
>C12-C28	ND	27.2 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:06	TPH 8015M	
>C28-C35	ND	27.2 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:06	TPH 8015M	
Surrogate: 1-Chlorooctane		103 %	70-13	0	P0H3113	08/31/20 13:30	08/31/20 21:06	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-13	0	P0H3113	08/31/20 13:30	08/31/20 21:06	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.2 m	g/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 21:06	calc	

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

> S-10 @ 1' 0H31003-21 (Soil)

Analyte	Result	Reporting Limit U	nits D	ilution	Batch	Prepared	Analyzed	Method	Notes
			Permia	n Basi	n Environme	ntal Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00103 mg	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:50	EPA 8021B	
Toluene	ND	0.00103 mg	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:50	EPA 8021B	
Ethylbenzene	ND	0.00103 mg	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:50	EPA 8021B	
Xylene (p/m)	ND	0.00206 mg	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 17:50	EPA 8021B	
Xylene (o)	ND	0.00103 mg	g/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 Parameter	s by EPA/	Standard N	1ethods						
Chloride	28.7	1.03 mg	g/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 Hydrocarbon	s C6-C35 b	y EPA Met	hod 8015	M					
C6-C12	ND	25.8 mg	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:52	TPH 8015M	
>C12-C28	ND	25.8 mg	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:52	TPH 8015M	
>C28-C35	ND	25.8 mg	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 21:52	TPH 8015M	
Surrogate: 1-Chlorooctane		98.2 %	70-130		Р0Н3113	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	g/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 21:52	calc	

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

> S-11 @ 1' 0H31003-25 (Soil)

Analyte	Result	Reporting Limit U	Inits	Dilution	Batch	Prepared	Analyzed	Method	Notes
			Permi	an Basii	n Environme	ental Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00102 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Toluene	ND	0.00102 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Ethylbenzene	ND	0.00102 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Xylene (p/m)	ND	0.00204 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Xylene (o)	ND	0.00102 m	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		87.1 %	75-12	?5	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.4 %	75-12	?5	P0I0106	09/01/20 12:23	09/01/20 18:31	EPA 8021B	
General Chemistry Parameter	s by EPA/	Standard N	Aethods						
Chloride	456	1.02 m	g/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 Hydrocarbon	s C6-C35 b	y EPA Met	hod 801	5M					
C6-C12	ND	25.5 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 22:38	TPH 8015M	
>C12-C28	ND	25.5 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 22:38	TPH 8015M	
>C28-C35	ND	25.5 m	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 22:38	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-13	80	P0H3113	08/31/20 13:30	08/31/20 22:38	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-13	80	P0H3113	08/31/20 13:30	08/31/20 22:38	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5 m	g/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 22:38	calc	

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

> S-12 @ 1' 0H31003-29 (Soil)

Analyte	Result	Reporting Limit U	nits D	ilution	Batch	Prepared	Analyzed	Method	Notes
			Permia	n Basi	n Environme	ntal Lab, L.P.			
BTEX by 8021B									
Benzene	ND	0.00102 mg	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 19:11	EPA 8021B	
Toluene	ND	0.00102 mg	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 19:11	EPA 8021B	
Ethylbenzene	ND	0.00102 mg	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 19:11	EPA 8021B	
Xylene (p/m)	ND	0.00204 mg	g/kg dry	1	P0I0106	09/01/20 12:23	09/01/20 19:11	EPA 8021B	
Xylene (o)	ND	0.00102 mg	g/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 Parameter	s by EPA/	Standard N	1ethods						
Chloride	36.7	1.02 mg	g/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 Hydrocarbon	s C6-C35 b	y EPA Met	hod 8015	M					
C6-C12	ND	25.5 mg	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 23:24	TPH 8015M	
>C12-C28	ND	25.5 mg	g/kg dry	1	P0H3113	08/31/20 13:30	08/31/20 23:24	TPH 8015M	
>C28-C35	ND	25.5 mg	g/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	1	P0H3113	08/31/20 13:30	08/31/20 23:24	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5 mg	g/kg dry	1	[CALC]	08/31/20 13:30	08/31/20 23:24	calc	

Larson & Associates, Inc. Project: Dagger Lake Pit

P.O. Box 50685 Project Number: 20-0100-05 Midland TX, 79710 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 P0H3119 - General Preparation (GC)										
Blank (P0H3119-BLK1)				Prepared: 0	08/31/20 Ar	nalvzed: 09	/01/20			
Benzene	ND	0.00100	mg/kg wet	parea. 0			· · = ·			
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: 0	8/31/20 Ar	nalyzed: 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: 0	8/31/20 Ar	nalyzed: 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: 0	08/31/20 Ar	nalyzed: 09	/01/20			
Benzene	0.00	<u> </u>	mg/kg wet		·	<u> </u>	<u> </u>	<u> </u>		·
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			

Permian Basin Environmental Lab, L.P.

Analyte

Xylene (o)

Benzene

Toluene

Ethylbenzene

Xylene (p/m)

Xylene (o)

Surrogate: 1,4-Difluorobenzene

Surrogate: 4-Bromofluorobenzene

Calibration Check (P0H3119-CCV3)

Notes

Larson & Associates, Inc. Project: Dagger Lake Pit

Reporting

Limit

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

Result

Fax: (432) 687-0456

RPD

Limit

%REC

Limits

RPD

BTEX by 8021B - Quality Control Permian Basin Environmental Lab, L.P.

Units

Spike

Level

0.100

0.120

0.120

0.100

0.100

0.100

0.200

0.100

Source

Result

%REC

95.5

88.8

85.8

102

91.4

92.6

91.3

96.3

Prepared: 08/31/20 Analyzed: 09/01/20

80-120

75-125

75-125

80-120

80-120

80-120

80-120

80-120

Calibration Blank (P0H3119-CCB2)				Prepared: 08/31/2	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: 08/31/2	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: 08/31/2	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

 Surrogate: 4-Bromofluorobenzene
 0.105
 "
 0.120
 87.2
 75-125

 Surrogate: 1,4-Difluorobenzene
 0.105
 "
 0.120
 87.6
 75-125

0.00100

0.00100

0.00100

0.00100

0.00200

0.00100

mg/kg wet

0.0955

0.107

0.103

0.102

0.0914

0.0926

0.183

0.0963

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: Dagger Lake Pit P.O. Box 50685 Project Number: 20-0100-05

Midland TX, 79710 Project Manager: Mark Larson

Fax: (432) 687-0456

BTEX by 8021B - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch P0H3119 - General Preparation (GC)

Matrix Spike (P0H3119-MS1)	Sour	ce: 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)	Sour	ce: 0H31009	Prepared:	08/31/20 An	alyzed: 09					
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				

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: Dagger Lake Pit

P.O. Box 50685 Project Number: 20-0100-05 Midland TX, 79710 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 (G	C)									
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			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: Dagger Lake Pit P.O. Box 50685 Project Number: 20-0100-05

Midland TX, 79710 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	Source	%REC	%REC	RPD	RPD Limit	Natas
Analyte	Kesuit	Limit	Units	Level	Result	%REC	Limits	KPD	Limit	Notes
Batch P0I0106 - General Preparation (GC)										
Calibration Check (P0I0106-CCV1)				Prepared &	k 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 &	ե 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 At	nalyzed: 09	0/02/20			
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)	Sou	ırce: 0101007-	-01	Prepared &	ն Analyzed:	09/01/20				
Benzene	0.0681	0.00110	mg/kg dry	0.110	ND	62.0	80-120			QM-0
Toluene	0.0473	0.00110	"	0.110	0.00110	42.0	80-120			QM-0
Ethylbenzene	0.0508	0.00110	"	0.110	0.00590	40.9	80-120			QM-0
Xylene (p/m)	0.105	0.00220	"	0.220	0.0345	32.3	80-120			QM-0
Xylene (o)	0.0502	0.00110	"	0.110	0.0119	34.8	80-120			QM-0
Surrogate: 4-Bromofluorobenzene	0.112		"	0.132		85.2	75-125			
Surrogate: 1,4-Difluorobenzene	0.121		"	0.132		91.7	75-125			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: Dagger Lake Pit

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

BTEX by 8021B - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch P0I0106 - General Preparation (GC)
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Matrix Spike Dup (P0I0106-MSD1)	Sour	rce: 0I01007-	Prepared:	09/01/20 An	alyzed: 09					
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			

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	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 At	nalyzed: 09	/01/20			
Chloride	18.8		mg/kg	20.0		94.0	0-200			
Matrix Spike (P0H3108-MS1)	Sou	rce: 0H31003	3-01	Prepared &	z Analyzed:	08/31/20				
Chloride	9090	10.8	mg/kg dry	1080	7970	105	80-120			
Matrix Spike (P0H3108-MS2)	Sou	rce: 0H31003	3-11	Prepared &	Analyzed:	08/31/20				
Chloride	524	1.05	mg/kg dry	526	18.7	96.0	80-120			

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0H3108 - *** DEFAULT PREP ***										
Matrix Spike Dup (P0H3108-MSD1)	Sou	rce: 0H31003	3-01	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)	Sou	rce: 0H31003	3-11	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 &	k Analyzed:	09/01/20				
Chloride	408	1.00	mg/kg wet	400		102	80-120	0.245	20	
Calibration Blank (P0I0103-CCB1)				Prepared &	k 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 &	z Analyzed:	09/01/20				
Chloride	19.0		mg/kg	20.0	•	95.0	0-200			

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	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)	Soui	rce: 0H31003	3-21	Prepared &	& Analyzed:	09/01/20				
Chloride	531	1.03	mg/kg dry	515	28.7	97.5	80-120			
Matrix Spike (P0I0103-MS2)	Sour	rce: 0H31003	3-31	Prepared &	& Analyzed:	09/01/20				
Chloride	516	1.04	mg/kg dry	521	20.6	95.2	80-120			
Matrix Spike Dup (P0I0103-MSD1)	Sour	rce: 0H31003	3-21	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)	Sour	rce: 0H31003	3-31	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 (P010105-BLK3)				Prepared &	& Analyzed:	09/01/20				
% Moisture	ND	0.1	%							
Blank (P0I0105-BLK4)				Prepared &	& Analyzed:	09/01/20				
% Moisture	ND	0.1	%							

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

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

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0I0105 - *** DEFAULT PREP ***										
Duplicate (P0I0105-DUP7)	Sour	се: 0Н31003-	22	Prepared &	Analyzed:	09/01/20				
% Moisture	2.0	0.1	%		2.0			0.00	20	
Duplicate (P0I0105-DUP8)	Sour	се: 0Н31003-	32	Prepared &	z Analyzed:	09/01/20				
% Moisture	4.0	0.1	%		3.0			28.6	20	R3
Duplicate (P0I0105-DUP9)	Sour	се: 0Н31007-	11	Prepared &	z Analyzed:	09/01/20				
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P0I0105-DUPA)	Sour	се: 0Н31008-	05	Prepared &	Analyzed:	09/01/20				
% Moisture	11.0	0.1	%		12.0			8.70	20	
Duplicate (P0I0105-DUPB)	Sour	се: 0Н31008-	20	Prepared &	analyzed:	09/01/20				
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P0I0105-DUPC)	Sour	се: 0Н31008-	30	Prepared &	k Analyzed:	09/01/20				
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P0I0105-DUPD)	Sour	се: 0Н31009-	14	Prepared &	t Analyzed:	09/01/20				
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P0I0105-DUPE)	Sour	ce: 0H31009-	24	Prepared &	Analyzed:	09/01/20				
% Moisture	4.0	0.1	%	-	2.0			66.7	20	R3

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.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	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			

Permian Basin Environmental Lab, L.P.

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.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0H3113 - TX 1005										
Matrix Spike (P0H3113-MS1)	Source	e: 0H31003	3-01	Prepared: (08/31/20 A	nalyzed: 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)	Sourc	e: 0H31003	3-01	Prepared: (08/31/20 A	nalyzed: 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			

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

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

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

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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

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If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

LABORATORY: PBG	RELINQUISHED BY:(Signature)	RELINQUISHED BY:(Signature)	RELINQUISHED BY:(Signature)	1/28 TOTAL	202	2 S - CL 3	31:3-416	5-3 10	18-35	5-3 8	5-3):	8-2 10	5-2.5'	5-2/3"	ک ا	S-1/10'	5-1'5'	5-1/3	3-11	Field Sample I.D.	TIME ZONE: Time zone/State:	RP report?	Agrson & ssociate Environmental Data Reported to:	97 of 21
<u>e</u>	signature)	signature)	ignature)		15	4	22	77		ō	ڡ	00	_	6	Ŋ	4	3	2	<u>~</u>	Lab#	A=AIR	S=SOIL W=WATER	es, Inc.	
			ENS.		1 10	1/2		2			12	- 11				1/2	1		J 36/26/18	Date	OT=OTHER	P=PAINT SL=SLUDGE		
No.	DATE/TIME	DATE/TIME	DATE/TIME		155.20	12:61	12:40	12:15	2:13	1:12	12:10	11:22	11:20	11:17	11:15	10:49	K . C	10:40	D37 S	Тіте Ма	iñ R	DGE		
	RECI	元の	30	15	 -														5	Matrix # of Cont	ainers		507 N Mic	
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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

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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 Pits Spill

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

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Definitions/Glossary

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

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.

MDA

MDC

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"

MDL Method Detection Limit Minimum Level (Dioxin) MPN Most Probable Number

MQL Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

Minimum Detectable Activity (Radiochemistry)

Minimum Detectable Concentration (Radiochemistry)

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

Eurofins Midland

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.

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

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

Lab Sample ID: 880-10299-1

Matrix: Solid

Client Sample ID: C-1
Date Collected: 01/17/22 10:02

Date Received: 01/18/22 08:09

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
Analyte		Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Total TPH	Result	Qualifier	50.0	mg/Kg	— -	Prepared	01/24/22 16:26	DII Fac
= =								
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		01/19/22 08:54	01/21/22 03:32	1
(GRO)-C6-C10 Diesel Range Organics (Over	97.2		50.0	mg/Kg		01/19/22 08:54	01/21/22 03:32	1
C10-C28)	•			99				·
Oll 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 Chro	omatography -	Soluble						
Method: 300.0 - Anions, Ion Chro Analyte	•	Soluble Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: C-2

Lab Sample ID: 880-10299-2

Matrix: Solid

Date Received: 01/18/22 08:09

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

Eurofins Midland

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

Job ID: 880-10299-1

SDG: 20-0100-05

Lab Sample ID: 880-10299-2

Matrix: Solid

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

Client Sample ID: C-2

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 (DR	O) (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 Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		01/19/22 08:54	01/21/22 03:53	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		01/19/22 08:54	01/21/22 03:53	1
C10-C28)								
Oll 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 Chro	matography -	Soluble						
Analyte	•	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

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 BT	EX Calculation	Qualifier	RL	Unit	D		Analyzed	Dil Fac
	EX Calculation	Qualifier U	RL 0.00400	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared	Analyzed 01/24/22 17:18	Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX	TEX Calculation Result <0.00400	U			<u>D</u>			
Method: Total BTEX - Total BT Analyte	TEX Calculation Result <0.00400 age Organics (DR	U			D_			
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Ran	TEX Calculation Result <0.00400 age Organics (DR	U O) (GC) Qualifier	0.00400	mg/Kg		Prepared	01/24/22 17:18	1
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Ran Analyte	Result	O) (GC) Qualifier	0.00400 RL	mg/Kg		Prepared	01/24/22 17:18 Analyzed	1
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Ran Analyte Total TPH	rex Calculation Result <0.00400 age Organics (DR) Result <49.9 ange Organics (D	O) (GC) Qualifier	0.00400 RL	mg/Kg		Prepared	01/24/22 17:18 Analyzed	1
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Ran Analyte Total TPH Method: 8015B NM - Diesel Ran Analyte Gasoline Range Organics	rex Calculation Result <0.00400 age Organics (DR) Result <49.9 ange Organics (D	O) (GC) Qualifier U RO) (GC) Qualifier	0.00400 RL 49.9	mg/Kg Unit mg/Kg	<u>D</u>	Prepared Prepared	01/24/22 17:18 Analyzed 01/24/22 16:26	Dil Fa
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Ran Analyte Total TPH Method: 8015B NM - Diesel Ran Analyte	rex Calculation Result <0.00400 age Organics (DR) Result <49.9 ange Organics (D) Result	U O) (GC) Qualifier U RO) (GC) Qualifier U	0.00400 RL 49.9	mg/Kg Unit mg/Kg Unit	<u>D</u>	Prepared Prepared	01/24/22 17:18 Analyzed 01/24/22 16:26 Analyzed	Dil Fac

Eurofins Midland

Job ID: 880-10299-1

SDG: 20-0100-05

Project/Site: Dagger Lake Pits Spill Client Sample ID: C-3

Client: Larson & Associates, Inc.

Lab Sample ID: 880-10299-3

Matrix: Solid

Date Collected: 01/17/22 10:06

Date Received:	01/18/22	08:09

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oll 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 Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	838		5.05	mg/Kg			01/20/22 00:44	

Client Sample ID: C-4

Date Collected: 01/17/22 10:08

Date Received: 01/18/22 08:09

Lab	Sample	ID:	880-1	0299-4

Matrix: Solid

Method: 8021B - Volatile Orga	inic 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 A-Diffuorobenzene (Surr)	76		70 130			01/18/22 00:33	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 C	alculation							
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 (DR	O) (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 Rang	je Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		01/19/22 08:54	01/21/22 04:34	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		01/19/22 08:54	01/21/22 04:34	1
C10-C28)								
Oll 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

o-Terphenyl (Surr)	77	70 - 130		(01/19/22 08:54	01/21/22 04:34	1
Method: 300.0 - Anions, Ion Chromatogra	aphy - Soluble						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

4.97

70 - 130

76

802

Eurofins Midland

01/20/22 01:09

mg/Kg

1-Chlorooctane (Surr)

Chloride

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

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

Lab Sample ID: 880-10299-5

Matrix: Solid

Client Sample ID: C-5 Date Collected: 01/17/22 10:10

Date Received: 01/18/22 08:09

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	X 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	e Organics (DR	O) (GC)						
- Method: 8015 NM - Diesel Range Analyte		O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier	RL 49.9	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared	Analyzed 01/24/22 16:26	
Analyte	Result	Qualifier			<u>D</u>	Prepared		Dil Fac
Analyte		Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte	Result <49.9 ge Organics (D	Qualifier U			<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <49.9 ge Organics (Di	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg			01/24/22 16:26	1
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	ge Organics (D) Result <49.9 49.9	Qualifier U RO) (GC) Qualifier U	49.9 RL 49.9	mg/Kg Unit mg/Kg		Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 04:55	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9 ge Organics (D	Qualifier U RO) (GC) Qualifier U	49.9	mg/Kg		Prepared	01/24/22 16:26 Analyzed	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U RO) (GC) Qualifier U	49.9 RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 04:55 01/21/22 04:55	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (D) Result <49.9 49.9	Qualifier U RO) (GC) Qualifier U	49.9 RL 49.9	mg/Kg Unit mg/Kg		Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 04:55	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared	01/24/22 16:26 Analyzed 01/21/22 04:55 01/21/22 04:55 Analyzed	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 04:55 01/21/22 04:55	Dil Fac 1 1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <49.9	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared	01/24/22 16:26 Analyzed 01/21/22 04:55 01/21/22 04:55 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane (Surr)	Result <49.9	Qualifier U RO) (GC) Qualifier U U Qualifier S1-	49.9 RL 49.9 49.9 49.9 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 04:55 01/21/22 04:55 Analyzed 01/21/22 04:55	Dil Fac 1 1 Dil Fac Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane (Surr) o-Terphenyl (Surr)	Result	Qualifier U RO) (GC) Qualifier U U Qualifier S1-	49.9 RL 49.9 49.9 49.9 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 04:55 01/21/22 04:55 Analyzed 01/21/22 04:55	1 1 1 Dil Fac 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

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

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

SDG: 20-0100-05

ID: 880-10299-6

Matrix: Solid

.ab	Sam	pie	ID:	880-	10	295)- 6)

Date Received:	01/18/22 08:09	
_		

Client Sample ID: C-6 Date Collected: 01/17/22 10:12

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 (DR	O) (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 Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		01/19/22 08:54	01/21/22 05:15	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		01/19/22 08:54	01/21/22 05:15	1
C10-C28)								
OII 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 Chro	matography -	Soluble						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	415		5.05	mg/Kg			01/20/22 01:26	

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

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 BT Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total BTEX	Result < 0.00398		0.00398		D	Prepared	Analyzed 01/24/22 17:18	Dil Fac
TOTAL BILA	\0.00390	U	0.00398	mg/Kg			01/24/22 17.10	,
Method: 8015 NM - Diesel Rar	nge Organics (DR	O) (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
Total TPH Method: 8015B NM - Diesel R			50.0	mg/Kg			01/24/22 16:26	1
Method: 8015B NM - Diesel R	ange Organics (D		50.0 RL	mg/Kg Unit	D	Prepared	01/24/22 16:26 Analyzed	Dil Fac
Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics	ange Organics (D	RO) (GC) Qualifier			<u>D</u>	Prepared 01/19/22 08:54		
Method: 8015B NM - Diesel Ra Analyte	ange Organics (D	RO) (GC) Qualifier	RL	Unit	<u>D</u>	<u>.</u>	Analyzed	1 Dil Fac

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Job ID: 880-10299-1

SDG: 20-0100-05

Client Sample ID: C-7

Client: Larson & Associates, Inc.

Project/Site: Dagger Lake Pits Spill

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

Lab Sample ID: 880-10299-7

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oll 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

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

Client Sample ID: C-8

Total BTEX

Date Collected: 01/17/22 10:16

Lab Sample ID: 880-10299-8

01/24/22 17:18

Matrix: Solid

Date Received: 01/18/22 08:09

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

Amalusta	Decult Ovalities	DI.	I Imit	D Duamanad	A sa a luma d	Dil Fee
Method: Total BTEX - Total BTEX Calcul	ation					
1,4-Difluorobenzene (Surr)	91	70 - 130		01/18/22 09:33	01/21/22 22:39	1
. =: -::::::::::::::::::::::::::::::::::						-

0.00398

mg/Kg

<0.00398 U

N	lethod: 8015 NM - Diesel Range Organ	ics (DR	O) (GC)						
Α	nalyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
To	otal TPH	<50.0	U	50.0	mg/Kg			01/24/22 16:26	1
N	lethod: 8015B NM - Diesel Range Orga	nics (D	RO) (GC)						

Method. 00 13D MM - Dieser Kang	Je Organica (D	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		01/19/22 08:54	01/21/22 05:57	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		01/19/22 08:54	01/21/22 05:57	1
C10-C28)								
Oll 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 Chrom	natography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	771		4.97	mg/Kg			01/20/22 01:51	1

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

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 BTE	X 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 Rango	•		DI	Unit	n	Propared	Analyzod	Dil Fac
	•		DI	Unit	D	Bronarod	Analyzod	Dil Eac
Method: 8015 NM - Diesel Range Analyte Total TPH	•	O) (GC) Qualifier	RL 50.0	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared	Analyzed 01/24/22 16:26	
Analyte Total TPH	Result 52.0	Qualifier			<u>D</u>	Prepared		
Analyte	Result 52.0 ge Organics (Di	Qualifier			<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: 8015B NM - Diesel Ran Analyte	Result 52.0 ge Organics (Di	Qualifier RO) (GC) Qualifier	50.0	mg/Kg			01/24/22 16:26	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Ran	Result 52.0 ge Organics (Dige Result	Qualifier RO) (GC) Qualifier	50.0	mg/Kg		Prepared	01/24/22 16:26 Analyzed	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 52.0 ge Organics (Dige Result	Qualifier RO) (GC) Qualifier	50.0	mg/Kg		Prepared	01/24/22 16:26 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier RO) (GC) Qualifier U	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 06:39 01/21/22 06:39	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 52.0 ge Organics (Di Result <50.0	Qualifier RO) (GC) Qualifier U	50.0 RL 50.0	mg/Kg Unit mg/Kg		Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 06:39	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Randanalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier RO) (GC) Qualifier U	50.0 RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared	01/24/22 16:26 Analyzed 01/21/22 06:39 01/21/22 06:39 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Randalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane (Surr)	Result	Qualifier RO) (GC) Qualifier U	50.0 RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 06:39 01/21/22 06:39	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Randanalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier RO) (GC) Qualifier U	50.0 RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared	01/24/22 16:26 Analyzed 01/21/22 06:39 01/21/22 06:39 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Randalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane (Surr)	Result	Qualifier RO) (GC) Qualifier U	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 06:39 01/21/22 06:39 Analyzed 01/21/22 06:39	Dil Fac 1 Dil Fac 1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Ran Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane (Surr) o-Terphenyl (Surr)	Result	Qualifier RO) (GC) Qualifier U	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 06:39 01/21/22 06:39 Analyzed 01/21/22 06:39	Dil Fac Dil Fac 1 Dil Fac 1 Dil Fac

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

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

Date Received: 01/18/22 08:09

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

Job ID: 880-10299-1

SDG: 20-0100-05

Client Sample ID: C-10 Lab Sample ID: 880-10299-10 Date Collected: 01/17/22 10:20

Matrix: Solid

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 (DR	O) (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 Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		01/19/22 08:54	01/21/22 07:00	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		01/19/22 08:54	01/21/22 07:00	1
C10-C28)								
Oll 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 Chro	matography -	Soluble						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

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

4.95

mg/Kg

478

Date Collected: 01/17/22 10:22

Chloride

Date Received: 01/18/22 08:09

01/20/22 02:24

Matrix: Solid

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	
Toluene	<0.00198	U	0.00198	mg/Kg		01/19/22 07:30	01/19/22 11:08	
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/19/22 07:30	01/19/22 11:08	
m,p-Xylenes	<0.00396	U	0.00396	mg/Kg		01/19/22 07:30	01/19/22 11:08	
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/19/22 07:30	01/19/22 11:08	
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/19/22 07:30	01/19/22 11:08	•
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
	70		70 - 130			01/19/22 07:30	01/19/22 11:08	
1,4-Difluorobenzene (Surr) Method: Total BTEX - Total BT Analyte		Qualifier	70 - 730 RL	Unit	D	Prepared	Analyzed	
• • • • • • • • • • • • • • • • • • • •			70 - 130			01/19/22 07:30	01/19/22 11:00	,
Method: Total BTEX - Total BT	EX Calculation			Unit mg/Kg	<u>D</u>			Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX	EX Calculation Result <0.00396	U	RL		<u>D</u>		Analyzed	Dil Fac
Method: Total BTEX - Total BT Analyte	EX Calculation Result <0.00396 ge Organics (DR0	U	RL		<u>D</u>		Analyzed	Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Rang	EX Calculation Result <0.00396 ge Organics (DR0	U O) (GC) Qualifier	RL 0.00396	mg/Kg		Prepared	Analyzed 01/24/22 17:18	Dil Fac
Method: Total BTEX - Total BTEA Analyte Total BTEX Method: 8015 NM - Diesel Rangenalyte	EX Calculation Result <0.00396 ge Organics (DRO Result <50.0	O) (GC) Qualifier U	RL 0.00396	mg/Kg		Prepared	Analyzed 01/24/22 17:18 Analyzed	Dil Fac
Method: Total BTEX - Total BTEA Analyte Total BTEX Method: 8015 NM - Diesel Range Analyte Total TPH	EX Calculation Result <0.00396 ge Organics (DRO Result <50.0 inge Organics (DI	O) (GC) Qualifier U	RL 0.00396	mg/Kg		Prepared	Analyzed 01/24/22 17:18 Analyzed	Dil Fac
Method: Total BTEX - Total BTEA Analyte Total BTEX Method: 8015 NM - Diesel Rang Analyte Total TPH Method: 8015B NM - Diesel Ra	EX Calculation Result <0.00396 ge Organics (DRO Result <50.0 inge Organics (DI	O) (GC) Qualifier U RO) (GC) Qualifier	RL 0.00396 RL 50.0	mg/Kg Unit mg/Kg	<u>D</u>	Prepared Prepared	Analyzed 01/24/22 17:18 Analyzed 01/24/22 16:26	Dil Fac

Job ID: 880-10299-1

SDG: 20-0100-05

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

Lab Sample ID: 880-10299-11

Matrix: Solid

Client Sample ID: C-11 Date Collected: 01/17/22 10:22

Date Received: 01/18/22 08:09

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oll 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

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

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**

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 BTE)	X 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
•	•	, , ,	D.		_			511.5
Method: 8015 NM - Diesel Range Analyte	•	O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	•	Qualifier	RL 49.9	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared	Analyzed 01/24/22 16:26	
Total TPH	Result <49.9	Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH Method: 8015B NM - Diesel Rang	Result <49.9 ge Organics (Di	Qualifier U RO) (GC)	49.9		<u>D</u>		01/24/22 16:26	1
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte	Result <49.9 ge Organics (Di	Qualifier U RO) (GC) Qualifier		mg/Kg		Prepared 01/19/22 08:54		Dil Fac
Analyte Total TPH . Method: 8015B NM - Diesel Rang	Result <49.9 ge Organics (DI Result	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg		Prepared	01/24/22 16:26 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <49.9 ge Organics (DI Result	Qualifier U RO) (GC) Qualifier U	49.9	mg/Kg		Prepared	01/24/22 16:26 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (DI Result <49.9	Qualifier U RO) (GC) Qualifier U	49.9 RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 07:43	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (DI Result <49.9	Qualifier U RO) (GC) Qualifier U	49.9 RL 49.9	mg/Kg Unit mg/Kg		Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 07:43	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared	Analyzed 01/21/22 07:43 01/21/22 07:43 01/21/22 07:43 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 07:43 01/21/22 07:43	Dil Face 1 1 1 1 Dil Face
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared	Analyzed 01/21/22 07:43 01/21/22 07:43 01/21/22 07:43 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane (Surr)	Result	Qualifier U RO) (GC) Qualifier U U Qualifier	49.9 RL 49.9 49.9 49.9 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 07:43 01/21/22 07:43 Analyzed 01/21/22 07:43	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane (Surr) o-Terphenyl (Surr)	Result	Qualifier U RO) (GC) Qualifier U U Qualifier	49.9 RL 49.9 49.9 49.9 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared 01/19/22 08:54	01/24/22 16:26 Analyzed 01/21/22 07:43 01/21/22 07:43 Analyzed 01/21/22 07:43	Dil Fac

Client: Larson & Associates, Inc.

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

Project/Site: Dagger Lake Pits Spill

Client Sample ID: C-13

Lab Sample ID: 880-10299-13

Date Collected: 01/17/22 10:26

Date Received: 01/18/22 08:09

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199	mg/Kg		01/19/22 07:30	01/19/22 11:49	
Toluene	< 0.00199	U	0.00199	mg/Kg		01/19/22 07:30	01/19/22 11:49	
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		01/19/22 07:30	01/19/22 11:49	
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		01/19/22 07:30	01/19/22 11:49	
o-Xylene	< 0.00199	U	0.00199	mg/Kg		01/19/22 07:30	01/19/22 11:49	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/19/22 07:30	01/19/22 11:49	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	98		70 - 130			01/19/22 07:30	01/19/22 11:49	
1,4-Difluorobenzene (Surr)	95		70 - 130			01/19/22 07:30	01/19/22 11:49	
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
T.L.I.DTEV								
	<0.00398 e Organics (DR		0.00398	mg/Kg			01/24/22 17:18	
Total BTEX Method: 8015 NM - Diesel Range Analyte	e Organics (DR	O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	
Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC) Qualifier			<u>D</u>	Prepared		Dil Fac
Method: 8015 NM - Diesel Range Analyte	e Organics (DR Result <49.9	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Rang	e Organics (DR Result <49.9 ge Organics (DI Result	Qualifier U RO) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fa
Method: 8015 NM - Diesel Range Analyte Total TPH	e Organics (DR Result <49.9	Qualifier U RO) (GC) Qualifier	RL 49.9	Unit mg/Kg		<u> </u>	Analyzed 01/24/22 16:26	Dil Fa
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	e Organics (DR Result <49.9 ge Organics (DI Result	Qualifier U RO) (GC) Qualifier U U RO) (GC) Qualifier U	RL 	Unit mg/Kg		Prepared	Analyzed 01/24/22 16:26 Analyzed	Dil Fa
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	e Organics (DR Result <49.9 ge Organics (DI Result <49.9	Qualifier U RO) (GC) Qualifier U U U U	RL 49.9	Unit mg/Kg Unit mg/Kg		Prepared 01/19/22 08:54	Analyzed 01/24/22 16:26 Analyzed 01/21/22 08:05	Dil Fa
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	e Organics (DR Result <49.9 ge Organics (DI Result <49.9	Qualifier U RO) (GC) Qualifier U U U U	RL 49.9 49.9	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54	Analyzed 01/24/22 16:26 Analyzed 01/21/22 08:05 01/21/22 08:05	Dil Fa
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	e Organics (DR Result <49.9 ge Organics (DI Result <49.9 <49.9	Qualifier U RO) (GC) Qualifier U U U U	RL 49.9 RL 49.9 49.9 49.9	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54	Analyzed 01/24/22 16:26 Analyzed 01/21/22 08:05 01/21/22 08:05	Dil Fa
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (DR/Result <49.9 Empty of the content of	Qualifier U RO) (GC) Qualifier U U Qualifier	RL 49.9 RL 49.9 49.9 49.9	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared	Analyzed 01/24/22 16:26 Analyzed 01/21/22 08:05 01/21/22 08:05 01/21/22 08:05 Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane (Surr)	e Organics (DR/Result < 49.9 ge Organics (DR/Result < 49.9	Qualifier U RO) (GC) Qualifier U U U Qualifier S1- S1-	RL 49.9 RL 49.9 49.9 49.9 Limits 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 01/19/22 08:54 01/19/22 08:54 01/19/22 08:54 Prepared 01/19/22 08:54	Analyzed 01/24/22 16:26 Analyzed 01/21/22 08:05 01/21/22 08:05 Analyzed 01/21/22 08:05	Dil Fa

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

436

4.97

mg/Kg

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

Chloride

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

Eurofins Midland

01/20/22 03:06

Matrix: Solid

2

3

5

4.6

11

13

Client Sample Results

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

SDG: 20-0100-05

Lab Sample ID: 880-10299-14

Matrix: Solid

Matrix: Solid

Client Sample ID: C-14

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

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 (DR	O) (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 Rang	e Organics (DI	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		01/19/22 08:54	01/21/22 08:26	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		01/19/22 08:54	01/21/22 08:26	1
C10-C28)								
Oll 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 Chro	matography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	266		4.98	mg/Kg			01/20/22 03:15	1

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

Date Collected: 01/17/22 10:30

Date Received: 01/18/22 08:09

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	
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	
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	
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
	84		70 - 130			01/19/22 07:30	01/19/22 12:30	1
	EX Calculation	Qualifier	70 - 730 RL	Unit	D	Prepared	Analyzed	
• '			70 - 700			01/13/22 07:30	01770722 12:00	,
Method: Total BTEX - Total BT Analyte	EX Calculation			Unit mg/Kg	<u>D</u>			Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX	EX Calculation Result <0.00398	U	RL		<u>D</u>		Analyzed	
Method: Total BTEX - Total BT Analyte	EX Calculation Result <0.00398 ge Organics (DR0	U	RL		<u>D</u>		Analyzed	
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Range	EX Calculation Result <0.00398 ge Organics (DR0	U O) (GC) Qualifier	RL 0.00398	mg/Kg		Prepared	Analyzed 01/24/22 17:18	Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Rang Analyte	EX Calculation Result <0.00398 ge Organics (DRO Result <50.0	O) (GC) Qualifier	RL 0.00398	mg/Kg		Prepared	Analyzed 01/24/22 17:18 Analyzed	Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Rang Analyte Total TPH	EX Calculation Result <0.00398 ge Organics (DRO Result <50.0 inge Organics (DI	O) (GC) Qualifier	RL 0.00398	mg/Kg		Prepared	Analyzed 01/24/22 17:18 Analyzed	Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Rang Analyte Total TPH Method: 8015B NM - Diesel Rang	EX Calculation Result <0.00398 ge Organics (DRO Result <50.0 inge Organics (DI Result	O) (GC) Qualifier U	RL 0.00398 RL 50.0	mg/Kg Unit mg/Kg	<u>D</u>	Prepared Prepared	Analyzed 01/24/22 17:18 Analyzed 01/24/22 16:26	Dil Fac

Job ID: 880-10299-1

SDG: 20-0100-05

Lab Sample ID: 880-10299-15

Matrix: Solid

Client Sample ID: C-15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oll 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 Chron	latograpny - 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

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

Lab Sample	ID: 880-10299-16	5
	Matrix: Solid	1

Method: 8021B - Volatile Organic Compounds (GC) Result Qualifier Dil Fac Analyte Unit Prepared Analyzed Benzene <0.00200 U 0.00200 mg/Kg 01/19/22 07:30 01/20/22 12:00 01/20/22 12:00 Toluene <0.00200 U 0.00200 01/19/22 07:30 mg/Kg Ethylbenzene <0.00200 U 0.00200 mg/Kg 01/19/22 07:30 01/20/22 12:00 01/20/22 12:00 m,p-Xylenes 0.00401 01/19/22 07:30 <0.00401 U mg/Kg o-Xylene <0.00200 U 0.00200 mg/Kg 01/19/22 07:30 01/20/22 12:00 0.00401 01/19/22 07:30 Xylenes, Total <0.00401 U mg/Kg 01/20/22 12:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	01/19/22 07:3	01/20/22 12:00	1
1,4-Difluorobenzene (Surr)	100		70 - 130	01/19/22 07:3	0 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

Method: 8015 NM - Diesel Ra	ange Organics (DRO) (0	€C)					
Analyte	Result Qua	lifier 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 I							
Analyto	Pocult Our	lifior DI	Unit	D	Droparod	Analyzod	Dil Eac

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

Method: 300.0 - Anions, Ion Chron	natography - Soluble	;			
o-Terphenyl (Surr)	80	70 - 130	01/18/22 10:00	01/18/22 19:00	1
1-Chlorooctane (Surr)	82	70 - 130	01/18/22 10:00	01/18/22 19:00	1

Method: 300.0 - Anions, Ion Chromate	ography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	212		5.00	mg/Kg			01/20/22 03:31	1

Job ID: 880-10299-1

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

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

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	
1,4-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 Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/24/22 16:26	
Method: 8015B NM - Diesel Rang	ne Organics (D	RO) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9		49.9	mg/Kg	_ =	01/18/22 10:00	01/18/22 19:21	
(GRO)-C6-C10				99		0 11 10/22 10:00	0.7.10722 10.21	
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		01/18/22 10:00	01/18/22 19:21	1
C10-C28)								
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
	83		70 - 130			01/18/22 10:00	01/18/22 19:21	1
1-Chlorooctane (Surr)	03							
, ,	84		70 - 130			01/18/22 10:00	01/18/22 19:21	1
1-Chlorooctane (Surr) o-Terphenyl (Surr) Method: 300.0 - Anions, Ion Chro	84	Soluble	70 - 130			01/18/22 10:00	01/18/22 19:21	1
o-Terphenyl (Surr)	84 omatography -	Soluble Qualifier	70 - 130 R L	Unit	D	01/18/22 10:00 Prepared	01/18/22 19:21 Analyzed	Dil Fac

Surrogate Summary

Client: Larson & Associates, Inc.

Project/Site: Dagger Lake Pits Spill

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)	
880-10254-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	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

- 			
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(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-

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Surrogate Summary

Client: Larson & Associates, Inc.

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

		1001	ОТРН1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(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 (S	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 880-17066/2-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 (S	urr)			

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)

Lab Sample ID: MB 880-17113/5-A

Analysis Batch: 17425

Matrix: Solid

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17113

	MB	MB						
Analyte	Result	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

MB MB

MD MD

Surrogate	%Recovery	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

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery Quality	fier Limits
4-Bromofluorobenzene (Surr)	91	70 - 130
1,4-Difluorobenzene (Surr)	110	70 - 130

Lab Sample ID: LCSD 880-17113/2-A

Matrix: Solid

Analyte

Benzene

Toluene

Ethylbenzene

m,p-Xylenes

o-Xylene

Analysis Batch: 17425

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 17113

LCSD LCSD RPD Spike %Rec. Added Result Qualifier Unit %Rec Limits RPD Limit 0.09102 0.100 mg/Kg 91 70 - 130 21 35 0.100 0.07603 mg/Kg 76 70 - 130 23 35 0.100 0.07455 mg/Kg 75 70 - 130 24 35 0.200 0.1629 mg/Kg 81 70 - 130 26 35 0.100 0.08821 70 - 130 mg/Kg 35

LCSD LCSD

Surrogate	%Recovery	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

_	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

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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

Matrix: Solid

Analysis Batch: 17425

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 17113

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00199 U F1 0.0992 0.005393 F1 5 70 - 130 mg/Kg m,p-Xylenes <0.00398 UF1 0.198 0.01999 F1 mg/Kg 10 70 - 130 0.0992 o-Xylene <0.00199 UF1 0.01152 F1 mg/Kg 12 70 - 130

MS MS

Surrogate	%Recovery Q	ualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	63 S	1-	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 17113

Lab Sample ID: 880-10254-A-6-N MSD **Matrix: Solid**

Analysis Batch: 17425

Sample Sample Spike MSD MSD %Rec. RPD Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit %Rec 0.100 0.005487 F1 Benzene <0.00199 UF1 mg/Kg 5 70 - 130 0 35 Toluene 0.100 70 - 130 <0.00199 UF1F2 0.005737 F1 F2 mg/Kg 6 38 35 Ethylbenzene <0.00199 UF1 0.100 0.005685 F1 mg/Kg 6 70 - 130 5 35 0.200 0.01657 F1 8 70 - 130 35 m,p-Xylenes <0.00398 UF1 mg/Kg 19 0.100 o-Xylene <0.00199 U F1 0.008377 F1 8 70 - 130 32 mg/Kg

MSD MSD

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

Lab Sample ID: MB 880-17114/5-A

Matrix: Solid

Analysis Batch: 17206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17114

MB MB

Analyte	Result	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

MB MB

Surrogate	%Recovery	Qualifier	Limits	Pre	epared	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

Released to Imaging: 5/20/2022 2:06:19 PM

Matrix: Solid

Analysis Batch: 17206

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

Prep Batch: 17114

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%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	

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

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

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

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

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

Lab Sample ID: LCSD 880-17114/2-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 17206

Prep Batch: 17114 Spike LCSD LCSD Analyte Added Result Qualifier Unit D %Rec Limits **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 35 m,p-Xylenes 0.200 0.1682 mg/Kg 84 70 - 130 0.100 0.08298 83 70 - 130 o-Xylene mg/Kg

LCSD LCSD Surrogate %Recovery 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

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

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

Lab Sample ID: 880-10299-11 MSD

Matrix: Solid

	Prep Batch: 171				
		%Rec.		RPD	
D	%Rec	Limits	RPD	Limit	
	67	70 - 130	21	35	
	79	70 - 130	2	35	
	71	70 - 130	10	35	
	87	70 - 130	6	35	
	95	70 - 130	15	35	
	<u>-</u>	67 79 71 87	MRec. D MRec Limits 67 70 - 130 79 70 - 130 71 70 - 130 87 70 - 130	D %Rec. E Limits RPD 67 70 - 130 21 79 70 - 130 2 71 70 - 130 10 87 70 - 130 6	

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Client Sample ID: C-11

Client Sample ID: C-11

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 17114

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

MSD MSD

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

Lab Sample ID: MB 880-17131/5-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 17325

Prep Type: Total/NA

Prep Batch: 17131

MB MB

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 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

MB MB

Surrogate	%Recovery Qualif	ier 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

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%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	

Spike

Added

0.100

0.100

0.100

0.200

LCSD LCSD

0.09424

0.09680

0.1024

0.1998

0.09640

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

LCS LCS

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

Lab Sample ID: LCSD 880-17131/2-A

Released to Imaging: 5/20/2022 2:06:19 PM

Matrix: Solid

Analyte

Benzene

Toluene

Ethylbenzene

m,p-Xylenes

Analysis Batch: 17325

Client Sample ID: Lab Control Sample Dup

70 - 130

70 - 130

70 - 130

%Rec

94

97

102

100

96

Prep Type: Total/NA

Prep Batch: 17131 %Rec. **RPD**

Limits **RPD** Limit 70 - 130 35 70 - 130 35 5

o-Xylene			0.100
	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130

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3

35

35

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

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

Lab Sample ID: LCSD 880-17131/2-A

Lab Sample ID: 880-10292-A-2-C MSD

Matrix: Solid

Matrix: Solid

Analysis Batch: 17325

Analysis Batch: 17325

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 17131

LCSD LCSD

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 17131

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

MSD MSD

Surrogate	%Recovery 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

Analysis Batch: 17325

Prep Type: Total/NA Prep Batch: 17131

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

MS MS

Surrogate	%Recovery C	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

Matrix: Solid

Analysis Batch: 17092

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

Prep Batch: 17066

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

MD MD

Surrogate	%Recovery	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

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

Prep Batch: 17066

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

Lab Sample ID: LCS 880-17066/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA Analysis Batch: 17092 Prep Batch: 17066

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

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

Lab Sample ID: LCSD 880-17066/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 17092**

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

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

Lab Sample ID: 890-1829-A-1-H MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 17092 Prep Batch: 17066

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

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

Lab Sample ID: 890-1829-A-1-I MSD Client Sample ID: Matrix Spike Duplicate Matrix: Solid Prep Type: Total/NA

Analysis Batch: 17092 Prep Batch: 17066

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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
	MSD	MSD									

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

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**

Lab Sample ID: MB 880-17217/1-A

Analysis Batch: 17092

Matrix: Solid

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 17066

MSD MSD

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

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17217

Analysis Batch: 17328

MD MD

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

мв мв

Surrogate	%Recovery	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

Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 17328

Lab Sample ID: LCS 880-17217/2-A

Prep Type: Total/NA Prep Batch: 17217

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

C10-C28)

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

Lab Sample ID: LCSD 880-17217/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 17328

Prep Type: Total/NA

Prep Batch: 17217

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

C10-C28)

LCSD LCSD

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

Job ID: 880-10299-1

Client: Larson & Associates, Inc. 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

Lab Sample ID: 880-10292-A-1-E MSD

Matrix: Solid

Analysis Batch: 17328

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 17217

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U F1	997	<49.9	U F1	mg/Kg		0	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	997	1008		mg/Kg		99	70 - 130	
C10-C28)										

Matrix: Solid

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 17217

Analysis Batch: 17328 Spike MSD MSD %Rec. RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits **RPD** Limit 996 Gasoline Range Organics <49.9 UF1 <49.8 UF1 mg/Kg 0 70 - 130 NC 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 996 1072 mg/Kg 106 70 - 130 6 20 C10-C28)

MSD MSD Surrogate %Recovery 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 **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 17187

MB MB

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

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

Analysis Batch: 17187

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

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

Analysis Batch: 17187

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

QC Sample Results

Client: Larson & Associates, Inc.

Project/Site: Dagger Lake Pits Spill

SDG: 20-0100-05

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-10299-8 MS

Matrix: Solid
Analysis Batch: 17187

Client Sample ID: C-8
Prep Type: Soluble

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

Lab Sample ID: 880-10299-8 MSD

Matrix: Solid

Client Sample ID: C-8

Prep Type: Soluble

Analysis Batch: 17187 Sample Sample Spike MSD MSD %Rec. RPD Result Qualifier RPD Added Result Qualifier %Rec Limits Limit Analyte Unit Chloride 771 249 999.5 mg/Kg 92 90 - 110 4 20

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Client: Larson & Associates, Inc.

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

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Client: Larson & Associates, Inc.Job ID: 880-10299-1Project/Site: Dagger Lake Pits SpillSDG: 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	
380-10299-4	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	
380-10299-16	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	

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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

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Client: Larson & Associates, Inc.Job ID: 880-10299-1Project/Site: Dagger Lake Pits SpillSDG: 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 Batcl
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 Batc
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	

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Client: Larson & Associates, Inc.Job ID: 880-10299-1Project/Site: Dagger Lake Pits SpillSDG: 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

Client Sample ID: C-1

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

Client: Larson & Associates, Inc.

Project/Site: Dagger Lake Pits Spill

Lab Sample ID: 880-10299-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 880-10299-2

Date Collected: 01/17/22 10:04

Date Received: 01/18/22 08:09

Matrix: Solid

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 17113 Total/NA Prep 5.05 g 5 mL 01/18/22 09:33 KL XEN MID Total/NA 8021B 5 mL 01/21/22 19:51 KL XEN MID Analysis 1 5 mL 17425 Total/NA Total BTEX 17647 01/24/22 17:18 XEN MID Analysis 1 A.I Total/NA Analysis 8015 NM 17641 01/24/22 16:26 XEN MID Total/NA 17217 01/19/22 08:54 XEN MID Prep 8015NM Prep 10.00 g DM 10 mL Total/NA Analysis 8015B NM 17328 01/21/22 03:53 AJ XEN MID Soluble XEN MID Leach DI Leach 5.04 g 50 mL 17139 01/18/22 11:33 CH 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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

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

Lab Sample ID: 880-10299-4

Matrix: Solid

Client Sample ID: C-4 Date Collected: 01/17/22 10:08

Date Received: 01/18/22 08:09

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	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

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

Lab Sample ID: 880-10299-7

Matrix: Solid

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

Date Collected: 01/17/22 10:16

Date Received: 01/18/22 08:09

Date Received: 01/18/22 08:09

Client Sample ID: C-7

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 5035 17113 01/18/22 09:33 KL XEN MID Prep 5.02 g 5 mL 8021B Total/NA 5 mL KL Analysis 1 5 mL 17425 01/21/22 22:39 XEN MID Total/NA Total BTEX Analysis 17647 01/24/22 17:18 AJ XEN MID 1 Total/NA Analysis 8015 NM 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 DI Leach 50 mL 17139 01/18/22 11:33 СН XEN MID Leach 5.03 g 300.0 01/20/22 01:51 CH XEN MID Soluble Analysis 1 17187

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

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

Dil Batch Batch Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 5035 4.98 g 5 mL 17113 01/18/22 09:33 KL XEN MID 5 mL Total/NA 8021B 01/21/22 23:08 Analysis 1 5 mL 17425 KL XEN MID Total/NA Analysis Total BTEX 17647 01/24/22 17:18 AJ XEN MID 1 Total/NA Analysis 8015 NM 1 17641 01/24/22 16:26 AJ XEN MID Total/NA Prep 8015NM Prep 10.00 g 17217 01/19/22 08:54 DM **XEN MID** 10 mL 8015B NM 01/21/22 06:39 Total/NA Analysis 1 17328 ΑJ 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 Date Received: 01/18/22 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

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Matrix: Solid

SDG: 20-0100-05

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

Lab Sample ID: 880-10299-11

Matrix: Solid

Client Sample ID: C-11

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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 880-10299-12 Date Collected: 01/17/22 10:24 Matrix: Solid

Date Received: 01/18/22 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 880-10299-13

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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 880-10299-14

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

Г										
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Eurofins Midland

Page 37 of 45

Matrix: Solid

Matrix: Solid

SDG: 20-0100-05

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

Lab Sample ID: 880-10299-14

Matrix: Solid

Client Sample ID: C-14

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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Lab Sample ID: 880-10299-15

Client Sample ID: C-15 Date Collected: 01/17/22 10:30 **Matrix: Solid**

Date Received: 01/18/22 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Date Received: 01/18/22 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Date Received: 01/18/22 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	17066 17092	01/18/22 10:00 01/18/22 19:21	DM AJ	XEN MID XEN MID

Eurofins Midland

Matrix: Solid

Matrix: Solid

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 Lab Sample ID: 880-10299-17 Date Collected: 01/17/22 10:34

Matrix: Solid

Date Received: 01/18/22 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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.

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	Pr	ogram	Identification Number	Expiration Date		
Texas	NE	ELAP	T104704400-21-22	06-30-22		
The following analytes	are included in this report by	t the leberatory is not cortifi	and boother and consider a subbands. This list was			
the agency does not of	• '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for		
,	• '	Matrix	ed by the governing authority. This list ma	ay include analytes for		
the agency does not of	fer certification.	•	, , ,	ay include analytes for		

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Method Summary

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

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

Eurofins Midland

Page 41 of 45 1/24/2022 Released to Imaging: 5/20/2022 2:06:19 PM

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
80-10299-4	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
80-10299-7	C-7	Solid	01/17/22 10:14	01/18/22 08:09
80-10299-8	C-8	Solid	01/17/22 10:16	01/18/22 08:09
30-10299-9	C-9	Solid	01/17/22 10:18	01/18/22 08:09
)-10299-10	C-10	Solid	01/17/22 10:20	01/18/22 08:09
0-10299-11	C-11	Solid	01/17/22 10:22	01/18/22 08:09
0-10299-12	C-12	Solid	01/17/22 10:24	01/18/22 08:09
30-10299-13	C-13	Solid	01/17/22 10:26	01/18/22 08:09
30-10299-14	C-14	Solid	01/17/22 10:28	01/18/22 08:09
30-10299-15	C-15	Solid	01/17/22 10:30	01/18/22 08:09
0-10299-16	C-16	Solid	01/17/22 10:32	01/18/22 08:09
0-10299-17	C-17	Solid	01/17/22 10:34	01/18/22 08:09

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Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

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

Login Number: 10299 List Source: Eurofins Midland

List Number: 1

Creator: Rodriguez, Leticia

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	

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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

Review your project results through

····· LINKS ······

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Have a Question?



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www.eurofinsus.com/Env

Released to Imaging: 5/20/2022 2:06:19 PM

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.

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

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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**

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
-----------	-----------------------

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) Minimum Detectable Concentration (Radiochemistry) MDC

MDL Method Detection Limit Minimum Level (Dioxin) MLMPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

Practical Quantitation Limit PQL PRES Presumptive

QC **Quality Control**

Relative Error Ratio (Radiochemistry) **RER**

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

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 5.6° 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.

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

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

Lab Sample ID: 890-1874-1

Client Sample ID: BF-1 Date Collected: 01/26/22 12:00 Date Received: 01/26/22 13:33

Matrix: Solid

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

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

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Result Qualifier RL Unit Analyte D **Prepared** Analyzed Dil Fac Total TPH <50.0 U 01/27/22 16:10 50.0 mg/Kg

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		01/27/22 09:51	01/27/22 14:34	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		01/27/22 09:51	01/27/22 14:34	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/27/22 09:51	01/27/22 14:34	1
,		U		mg/Kg		01/27/22 09:51	01/27/22 14:34	57

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

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 Lab Sample ID: 890-1874-2 Date Collected: 01/26/22 12:05 Matrix: Solid

Date Received: 01/26/22 13:33	
PALO 1100011041 0 1120122 10100	
Mothod: 8021B Volatile Organic Compounds (GC)	

Method: 8021B - Volatile O	rganic Compo	unds (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

SDG: 20-0100-05

Client Sample ID: BF-2 Lab Sample ID: 890-1874-2

Date Collected: 01/26/22 12:05

Matrix: Solid

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 Rar	nge Organic	s (DRO) (0	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 Ra	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		01/27/22 09:51	01/27/22 14:55	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		01/27/22 09:51	01/27/22 14:55	1
C10-C28)	∠ E0.0		50.0	m a /1/ a		01/27/22 09:51	01/27/22 14:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/2//22 09:51	01/2//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 C	hromatogra	phy - Solu	ıble					
Analyte	_	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.79		5.05	mg/Kg			01/27/22 16:50	1

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DFBZ = 1,4-Difluorobenzene (Surr)

Surrogate Summary

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

Method: 8021B - Volatile Organic Compounds (GC)

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

-			Perc
		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-Bromofluo	robenzene (Surr)		

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

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		1CO1	ОТРН1					
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 S	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)

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

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

Lab Sample ID: MB 880-17880/1-A

Lab Sample ID: LCS 880-17880/2-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 17882

Analysis Batch: 17882

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17880

	MB	MB						
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 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
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/27/22 09:51	01/27/22 11:24	1

MB MB

Surrogate	%Recovery	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

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17880

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

ICSD ICSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane (Surr)	99	70 - 130
o-Terphenyl (Surr)	109	70 - 130

Lab Sample ID: LCSD 880-17880/3-A **Client Sample ID: Lab Control Sample Dup**

Matrix: Solid

Analysis Batch: 17882

Prep Type: Total/NA Prep Batch: 17880

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	894.5		mg/Kg		89	70 - 130	0	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	992.6		mg/Kg		99	70 - 130	5	20
C10-C28)									

	LOOD LOOD	
Surrogate	%Recovery Qualifie	er Limits
1-Chlorooctane (Surr)	93	70 - 130
o-Terphenvl (Surr)	94	70 - 130

Lab Sample ID: 890-1866-A-1-I MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 17882

Sample Sample Spike MS MS %Rec.

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U	997	1202		mg/Kg		121	70 - 130	 -
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	997	1078		mg/Kg		108	70 - 130	
C10 C20\										

C10-C28)

Eurofins Carlsbad

Prep Batch: 17880

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

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

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Client Sample ID: Matrix Spike Lab Sample ID: 890-1866-A-1-I MS Prep Type: Total/NA

Matrix: Solid Analysis Batch: 17882

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane (Surr) 70 70 - 130

Lab Sample ID: 890-1866-A-1-J MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

o-Terphenyl (Surr)

Prep Type: Total/NA **Analysis Batch: 17882**

70 - 130

Prep Batch: 17880

Prep Batch: 17880

RPD MSD MSD %Rec. Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <49.9 U 996 1170 mg/Kg 117 70 - 130 3 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 996 1078 mg/Kg 108 70 - 130 0 20 C10-C28)

MSD MSD

Surrogate	%Recovery	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 Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 17946

MB MB

Analyte	Result 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 **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 17946

	Spik	e LCS	LCS				%Rec.	
Analyte	Adde	d Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	273.9		ma/Ka	_	110	90 - 110	

Lab Sample ID: LCSD 880-17944/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 17946

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	 250	273.6		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 880-10422-A-20-B MS **Client Sample ID: Matrix Spike Matrix: Solid Prep Type: Soluble**

Analysis Batch: 17946

Released to Imaging: 5/20/2022 2:06:19 PM

7 maryoto Butom 11010	Sample Sample	Spike	MS	MS				%Rec.
Analyte	Result Qualifie	er Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	240	248	506.7		mg/Kg		108	90 - 110

QC Sample Results

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

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-10422-A-20-C MSD **Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 17946

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	240		248	499.0		mg/Kg		105	90 - 110	2	20

QC Association Summary

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

GC VOA

Prep Batch: 17863

١	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	890-1874-1	BF-1	Total/NA	Solid	5035	
l	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

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

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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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	17880 17882	01/27/22 09:51 01/27/22 14:34	DM AJ	XEN MID XEN MID
Soluble Soluble	Leach Analysis	DI Leach 300.0		1	5.05 g	50 mL	17944 17946	01/27/22 14:21 01/27/22 16:43		XEN MID XEN MID

Client Sample ID: BF-2 Lab Sample ID: 890-1874-2 Date Collected: 01/26/22 12:05 **Matrix: Solid**

Date Received: 01/26/22 13:33

Batch Batch Dil Initial Final Batch Prepared Method **Prep Type** Type Run **Factor Amount** Amount Number or Analyzed **Analyst** Lab Total/NA 5035 17863 01/27/22 08:03 KL XEN MID Prep 4.99 g 5 mL Total/NA 8021B 5 mL 01/27/22 14:25 KL XEN MID Analysis 5 mL 17867 1 Total/NA Analysis **Total BTEX** 1 17973 01/27/22 20:27 AJ XEN MID Total/NA 8015 NM XEN MID Analysis 1 17951 01/27/22 16:10 AJ Total/NA Prep 8015NM Prep 10.01 g 10 mL 17880 01/27/22 09:51 DM XEN MID XEN MID Total/NA 8015B NM Analysis 1 17882 01/27/22 14:55 AJ Soluble DI Leach 4.95 g 50 mL 17944 01/27/22 14:21 CH XEN MID Leach 300.0 01/27/22 16:50 CH Soluble Analysis 1 17946 **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

SDG: 20-0100-05

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analyte	are included in this rene	ort but the laboratory is r	and contified by the devenies outbority	This list may include analytes for u
the agency does not	offer certification.	•	not certified by the governing authority.	This list may include analytes for w
	•	Matrix	Analyte	This list may include analytes for w
the agency does not	offer certification.	•		This list may include analytes for w

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Method Summary

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

lethod	Method Description	Protocol	Laboratory
021B	Volatile Organic Compounds (GC)	SW846	XEN MID
otal BTEX	Total BTEX Calculation	TAL SOP	XEN MID
015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
0.00	Anions, Ion Chromatography	MCAWW	XEN MID
035	Closed System Purge and Trap	SW846	XEN MID
015NM Prep	Microextraction	SW846	XEN MID
I 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

Eurofins Carlsbad

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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

Login Sample Receipt Checklist

Client: Larson & Associates, Inc. Job Number: 890-1874-1 SDG Number: 20-0100-05

Login Number: 1874 **List Source: Eurofins Carlsbad**

List Number: 1 Creator: Clifton, Cloe

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	

Released to Imaging: 5/20/2022 2:06:19 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

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

Login Number: 1874
List Source: Eurofins Midland
List Number: 2
List Creation: 01/27/22 11:48 AM

Creator: Rodriguez, Leticia

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	

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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

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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.

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

Laboratory Job ID: 890-1881-1 SDG: 20-0100-05

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Eurofins Carlsbad 2/1/2022

Definitions/Glossary

Job ID: 890-1881-1 Client: Larson & Associates, Inc. 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. Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

%R

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

CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid DFR

Percent Recovery

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

Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL 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

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TEQ

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.

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Matrix: Solid

Lab Sample ID: 890-1881-1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 890-1881-1 Project/Site: Dagger Lake Pit 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

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 BTE	X 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					_			
: Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	
_		Qualifier	RL 50.0	Unit mg/Kg	D	Prepared	Analyzed 01/31/22 13:01	
Analyte Total TPH	Result <50.0	Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH	Result <50.0 ge Organics (D)	Qualifier U			<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <50.0 ge Organics (D)	Qualifier U RO) (GC) Qualifier	50.0	mg/Kg			01/31/22 13:01	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang	Result <50.0 Ge Organics (Dige Result	Qualifier U RO) (GC) Qualifier U	50.0	mg/Kg		Prepared	01/31/22 13:01 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 ge Organics (Dige Result <50.0	Qualifier U RO) (GC) Qualifier U U *+	50.0 RL 50.0	mg/Kg Unit mg/Kg		Prepared 01/31/22 08:21	01/31/22 13:01 Analyzed 01/31/22 13:24	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0	Qualifier U RO) (GC) Qualifier U U *+	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/31/22 08:21 01/31/22 08:21	01/31/22 13:01 Analyzed 01/31/22 13:24 01/31/22 13:24	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U RO) (GC) Qualifier U U *+	50.0 RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/31/22 08:21 01/31/22 08:21 01/31/22 08:21	01/31/22 13:01 Analyzed 01/31/22 13:24 01/31/22 13:24 01/31/22 13:24	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <50.0	Qualifier U RO) (GC) Qualifier U U *+	50.0 RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/31/22 08:21 01/31/22 08:21 01/31/22 08:21 Prepared	Analyzed 01/31/22 13:01 Analyzed 01/31/22 13:24 01/31/22 13:24 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane (Surr)	Result <50.0	Qualifier U RO) (GC) Qualifier U U*+ U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/31/22 08:21 01/31/22 08:21 01/31/22 08:21 Prepared 01/31/22 08:21	01/31/22 13:01 Analyzed 01/31/22 13:24 01/31/22 13:24 01/31/22 13:24 Analyzed 01/31/22 13:24	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane (Surr) o-Terphenyl (Surr)	Result	Qualifier U RO) (GC) Qualifier U U*+ U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 01/31/22 08:21 01/31/22 08:21 01/31/22 08:21 Prepared 01/31/22 08:21	01/31/22 13:01 Analyzed 01/31/22 13:24 01/31/22 13:24 01/31/22 13:24 Analyzed 01/31/22 13:24	Dil Fac 1 Dil Fac 1 1 Dil Fac 1 Dil Fac

Client Sample ID: C-8 Lab Sample ID: 890-1881-2 Matrix: Solid

Date Collected: 01/27/22 13:12

Date Received: 01/27/22 15:51

Sample Depth: 2.5

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

Matrix: Solid

Lab Sample ID: 890-1881-2

Client: Larson & Associates, Inc. Job ID: 890-1881-1 Project/Site: Dagger Lake Pit 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

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

1					
Moth	nod: 8015 NM	Diocal Bana	o Organica	IDDOVIC	105
INIELI	IOU. OU 15 INIVI	- Diesei Kang	e Organics	ין נטאטן	3C)

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 - Diese	I Range Organics (D	RO) (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
Oll 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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	69	S1-	70 - 130	01/31/22 08:2	01/31/22 13:45	1
o-Terphenyl (Surr)	68	S1-	70 - 130	01/31/22 08:2	1 01/31/22 13:45	1

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	256	4.95	mg/Kg		_	01/31/22 18:06	1

Lab Sample ID: 890-1881-3 Client Sample ID: C-4 Matrix: Solid

Date Collected: 01/27/22 13:55 Date Received: 01/27/22 15:51

Sample Depth: 0 - 4.1

Method: 8021B - Volatile Organic Compounds (C	GC))
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Michiga. 002 1D - Volunic Orga	inc compounds ((30)						
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

ı						
ı	Mothod	Total	DTEV	Total	DTEV	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

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

Matrix: Solid

Lab Sample ID: 890-1881-3

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 890-1881-1 Project/Site: Dagger Lake Pit 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										
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		
Oll 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

SDG: 20-0100-05

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits
		BFB1	DFBZ1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
80-10720-A-1-E MS	Matrix Spike	102	103	
0-10720-A-1-F MSD	Matrix Spike Duplicate	96	97	
90-1881-1	C-2	123	105	
0-1881-2	C-8	132 S1+	70	
0-1881-3	C-4	104	108	
S 880-18098/1-A	Lab Control Sample	102	101	
SD 880-18098/2-A	Lab Control Sample Dup	98	99	
B 880-18098/5-A	Method Blank	98	95	

 ${\sf BFB = 4\text{-}Bromofluorobenzene (Surr)}$

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

		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)

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

MD MD

	IVID	IVID						
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 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

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Surrogate	%Recovery 0	Qualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98	70 - 13	01/31/22 07:24	01/31/22 10:43	1
1,4-Difluorobenzene (Surr)	95	70 - 13	01/31/22 07:24	01/31/22 10:43	1

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 880-18098/1-A

Matrix: Solid

Analysis Batch: 18100

Prep Type: Total/NA Prep Batch: 18098

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery (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

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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	

LCSD LCSD

Surrogate	%Recovery	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

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

QC Sample Results

Job ID: 890-1881-1 Client: Larson & Associates, Inc. Project/Site: Dagger Lake Pit SDG: 20-0100-05

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

Lab Sample ID: 880-10720-A-1-E MS Client Sample ID: Matrix Spike **Matrix: Solid**

Prep Type: Total/NA Analysis Batch: 18100 Prep Batch: 18098 Sample Sample Spike MS MS %Rec.

1		- · · · · ·	- 1						
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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

MS MS Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 102 1,4-Difluorobenzene (Surr) 103 70 - 130

Lab Sample ID: 880-10720-A-1-F MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 18100** Prep Batch: 18098

Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
<0.00200	U	0.0996	0.08653		mg/Kg		87	70 - 130	1	35
<0.00200	U	0.0996	0.08058		mg/Kg		81	70 - 130	0	35
<0.00200	U	0.0996	0.07884		mg/Kg		79	70 - 130	3	35
<0.00399	U	0.199	0.1589		mg/Kg		80	70 - 130	4	35
<0.00200	U	0.0996	0.07941		mg/Kg		80	70 - 130	2	35
	Result <0.00200 <0.00200 <0.00200 <0.00399	Sample Sample Result Qualifier U	Result Qualifier Added <0.00200	Result Qualifier Added Result <0.00200	Result Qualifier Added Result Qualifier <0.00200	Result Qualifier Added Result Qualifier Unit <0.00200	Result Qualifier Added Result Qualifier Unit D <0.00200	Result Qualifier Added Result Qualifier Unit D %Rec <0.00200	Result Qualifier Added Result Qualifier Unit D %Rec Limits <0.00200	Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD <0.00200

MSD MSD Surrogate Qualifier Limits %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 96 1,4-Difluorobenzene (Surr) 97 70 - 130

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

Lab Sample ID: MB 880-18103/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 18110

MB MB Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte 01/31/22 08:21 01/31/22 11:07 <50.0 U 50.0 Gasoline Range Organics mg/Kg (GRO)-C6-C10 01/31/22 08:21 01/31/22 11:07 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28)

OII Range Organics (Over C28-C36) <50.0 U 50.0 01/31/22 08:21 01/31/22 11:07 mg/Kg MB MB

Surrogate	%Recovery	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 **Client Sample ID: Lab Control Sample**

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 18110** Prep Batch: 18103

	Бріке	LUS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1250		mg/Kg		125	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1341	*+	mg/Kg		134	70 - 130	
C10-C28)								

Eurofins Carlsbad

Prep Batch: 18103

Prep Type: Total/NA

Client: Larson & Associates, Inc. Job ID: 890-1881-1 Project/Site: Dagger Lake Pit SDG: 20-0100-05

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

Lab Sample ID: LCS 880-18103/2-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 18110

Prep Batch: 18103 LCS LCS

%Recovery Qualifier Surrogate Limits 1-Chlorooctane (Surr) 81 70 - 130 o-Terphenyl (Surr) 76 70 - 130

Lab Sample ID: LCSD 880-18103/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 18110							Prep	Batch:	18103
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1098		mg/Kg		110	70 - 130	13	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1137		mg/Kg		114	70 - 130	17	20

C10-C28)

	LCSD LCSD	
Surrogate	%Recovery Qualifie	er Limits
1-Chlorooctane (Surr)	82	70 - 130
o-Terphenyl (Surr)	77	70 ₋ 130

Lab Sample ID: 890-1869-A-41-G MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 18110

Diesel Range Organics (Over

Prep Batch: 18103 Sample Sample Spike MS MS Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <49.9 U 997 1260 mg/Kg 124 70 - 130 (GRO)-C6-C10

975.6

mg/Kg

96

70 - 130

997

C10-C28)

	IVIS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	69	S1-	70 - 130
o-Terphenyl (Surr)	66	S1-	70 - 130

<49.9 U*+

Lab Sample ID: 890-1869-A-41-H MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 18110

Prep Type: Total/NA Prep Batch: 18103

MSD MSD RPD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Gasoline Range Organics <49.9 U 996 1183 20 mg/Kg 116 70 - 130 6 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U*+ 996 930.0 mg/Kg 92 70 - 130 20 C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane (Surr) 67 S1-70 - 130 o-Terphenyl (Surr) 62 S1-70 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 890-1881-1 Project/Site: Dagger Lake Pit SDG: 20-0100-05

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18091/1-A

Matrix: Solid

Analysis Batch: 18196

MB MB

Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 01/31/22 15:08

Lab Sample ID: LCS 880-18091/2-A

Matrix: Solid

Analysis Batch: 18196

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 265.4 mg/Kg 106 90 - 110

Lab Sample ID: LCSD 880-18091/3-A

Matrix: Solid

Analysis Batch: 18196

LCSD LCSD %Rec. RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 268.7 107 mg/Kg 90 - 110

Lab Sample ID: 890-1862-A-4-E MS

Matrix: Solid

Analysis Batch: 18196

MS MS Sample Sample Spike %Rec. Analyte Result Qualifier Added Qualifier %Rec Result Unit Limits Chloride 281 249 549.6 108 90 - 110 mg/Kg

Lab Sample ID: 890-1862-A-4-F MSD

Matrix: Solid

Analysis Batch: 18196

Sample Sample Spike MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 249 281 546.4 mg/Kg 107 90 - 110 20

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 890-1881-1 Project/Site: Dagger Lake Pit 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

SDG: 20-0100-05

GC Semi VOA

Analysis Batch: 18170

Client Sample ID	Prep Type	Matrix	Method	Prep Batch
C-2	Total/NA	Solid	8015 NM	
C-8	Total/NA	Solid	8015 NM	
C-4	Total/NA	Solid	8015 NM	
	C-2 C-8	C-2 Total/NA C-8 Total/NA	C-2 Total/NA Solid C-8 Total/NA Solid	C-2 Total/NA Solid 8015 NM C-8 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

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

Lab Sample ID: 890-1881-1

Matrix: Solid

Job ID: 890-1881-1

SDG: 20-0100-05

Date Collected: 01/27/22 13:00 Date Received: 01/27/22 15:51

Client Sample ID: C-2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-1881-2 Matrix: Solid

Date Collected: 01/27/22 13:12 Date Received: 01/27/22 15:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-1881-3 Date Collected: 01/27/22 13:55

Date Received: 01/27/22 15:51

Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Eurofins Carlsbad

Matrix: Solid

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	Pr	ogram	Identification Number	Expiration Date 06-30-22
Texas	NE	ELAP	T104704400-21-22	
The following analytes	are included in this report bu	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes for
the agency does not of	• •	are resonately to not our in	ou by the governing additionty. This list his	ay include analytes for
the agency does not of Analysis Method	• •	Matrix	Analyte	ay molade analytes for
0 ,	fer certification.	•	, , ,	

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Method Summary

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

Job ID: 890-1881-1 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

Eurofins Carlsbad

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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	D
890-1881-1	C-2	Solid	01/27/22 13:00	01/27/22 15:51	4.
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

13 14

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 890-1881-1 SDG Number: 20-0100-05

Login Number: 1881 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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	

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Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 890-1881-1

SDG Number: 20-0100-05

List Source: Eurofins Midland List Creation: 01/31/22 08:21 AM

Creator: Kramer, Jessica

Login Number: 1881

List Number: 2

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	N/A	

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<6mm (1/4").

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

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

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Client: Larson & Associates, Inc.
Project/Site: Dagger Cake Pit

Laboratory Job ID: 880-10720-1 SDG: 20-0100-05

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-10720-1 SDG: 20-0100-05 Project/Site: Dagger Cake Pit

Qualifiers

GC VOA

Qualifier **Qualifier Description**

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** 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 **Practical Quantitation Limit** PQL

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) Toxicity Equivalent Quotient (Dioxin) TEQ

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 7.5° 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.

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Eurofins Midland 2/1/2022 Client: Larson & Associates, Inc. Job ID: 880-10720-1 Project/Site: Dagger Cake Pit SDG: 20-0100-05

Client Sample ID: C-9 4.1'

Lab Sample ID: 880-10720-1

Date Collected: 01/28/22 10:40 Matrix: Solid Date Received: 01/28/22 15:32

Method: 8021B - Volatile Organists	•	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)			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 I	BTEX Calcula	tion						
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 R	ange Organic	s (DRO) (0	GC)					
Analyte		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 Organ	ics (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
Oll 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	Chromatogra	ıphy - Solu	ıble					
Method: 300.0 - Anions, Ion Analyte	_	Iphy - Solu Qualifier	ıble RL	Unit mg/Kg	D	Prepared	Analyzed	Dil Fac

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

			Pero	cent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(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-Bromofluorob	enzene (Surr)			
DFBZ = 1,4-Difluorobe	enzene (Surr)			

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

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		1001	OTPH1					
Lab Sample ID	Client Sample ID	(70-130)	(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)

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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

	MB	MB						
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 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

MB MB

Surrogate	%Recovery 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

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 70 - 130 0.100 0.07904 mg/Kg 79 Toluene 0.100 0.07722 mg/Kg 77 70 - 130 Ethylbenzene 0.100 0.07702 mg/Kg 77 70 - 130 0.200 79 m,p-Xylenes 0.1584 mg/Kg 70 - 130 o-Xylene 0.100 0.07663 mg/Kg 77 70 - 130

LCS LCS

Surrogate	%Recovery	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

Spike LCSD LCSD **RPD** %Rec. Analyte Added Result Qualifier Unit %Rec Limits **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 35 o-Xylene 0.100 0.07439 74 70 - 130 35 mg/Kg

LCSD LCSD

Surrogate	%Recovery	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

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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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Client: Larson & Associates, Inc. Job ID: 880-10720-1 SDG: 20-0100-05 Project/Site: Dagger Cake Pit

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

Lab Sample ID: 880-10720-1 MS

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

MS MS Sample Sample Spike %Rec. Result Qualifier Added Result Qualifier Unit %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 81 mg/Kg 70 - 130

MS MS

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 102 1,4-Difluorobenzene (Surr) 103 70 - 130

Client Sample ID: C-9 4.1'

Matrix: Solid

Analysis Batch: 18100

Prep Type: Total/NA Prep Batch: 18098 **RPD**

Sample Sample Spike MSD MSD %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Benzene <0.00200 U 0.0996 0.08653 mg/Kg 87 70 - 130 35 1

Toluene <0.00200 U 0.0996 0.08058 81 70 - 130 35 mg/Kg 79 Ethylbenzene <0.00200 U 0.0996 0.07884 mg/Kg 70 - 130 3 35 m,p-Xylenes <0.00399 U 0.199 0.1589 mg/Kg 80 70 - 130 35 <0.00200 U 0.0996 0.07941 80 70 - 130 2 o-Xylene mg/Kg

MSD MSD

Surrogate	%Recovery	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 MB MB Result Qualifier RL Unit Prepared Analyzed Dil Fac

Analyte Gasoline Range Organics <50.0 U 50.0 01/28/22 14:42 01/28/22 21:35 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 01/28/22 14:42 01/28/22 21:35 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 01/28/22 14:42 01/28/22 21:35

MB MB

Surrogate	%Recovery	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

	S	Spike	LCS	LCS				%Rec.	
Analyte	Ac	dded	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics		1000	999.0		mg/Kg		100	70 - 130	
(GRO)-C6-C10									
Diesel Range Organics (Over		1000	1133		mg/Kg		113	70 - 130	
C10-C28)									

Client: Larson & Associates, Inc. Job ID: 880-10720-1 SDG: 20-0100-05 Project/Site: Dagger Cake Pit

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

LCS LCS %Recovery Qualifier Limits Surrogate 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

LCSD LCSD RPD %Rec. Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 890.9 mg/Kg 89 70 - 130 11 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1001 mg/Kg 100 70 - 130 12 20 C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 1-Chlorooctane (Surr) 104 70 - 130 70 - 130 o-Terphenyl (Surr) 115

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

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Limits **Analyte** Unit D %Rec <49.9 U Gasoline Range Organics 997 1307 mg/Kg 129 70 - 130 (GRO)-C6-C10 997 Diesel Range Organics (Over <49.9 U 1256 mg/Kg 124 70 - 130 C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane (Surr) 70 - 130 71 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 %Rec. **RPD**

Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Limits **RPD** Limit **Analyte** Unit %Rec Gasoline Range Organics <49.9 U 996 1113 110 70 - 130 20 mg/Kg 16 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 996 1026 mg/Kg 101 70 - 130 20 20

C10-C28)

MSD MSD

%Recovery Qualifier Limits Surrogate 1-Chlorooctane (Surr) 60 S1-70 - 130 o-Terphenyl (Surr) 60 S1-70 - 130

Client: Larson & Associates, Inc. Job ID: 880-10720-1 Project/Site: Dagger Cake Pit SDG: 20-0100-05

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18091/1-A Client Sample ID: Method Blank **Matrix: Solid**

Prep Type: Soluble

Analysis Batch: 18196

MB MB Result Qualifier RL Unit D Analyzed Dil Fac Prepared

Analyte 5.00 01/31/22 15:08 Chloride <5.00 U mg/Kg

Lab Sample ID: LCS 880-18091/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 18196

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 265.4 90 - 110 mg/Kg 106

Lab Sample ID: LCSD 880-18091/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Soluble

Analysis Batch: 18196

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Limits **RPD** Limit Unit D %Rec Chloride 250 268.7 107 20 mg/Kg

Lab Sample ID: 880-10720-1 MS Client Sample ID: C-9 4.1' **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 18196

Spike MS MS %Rec. Sample Sample Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Chloride 180 F1 248 472.5 F1 90 - 110 mg/Kg 118

Lab Sample ID: 880-10720-1 MSD Client Sample ID: C-9 4.1' **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 18196

MSD MSD RPD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Limit Chloride 180 F1 248 468.4 F1 117 90 - 110 20 mg/Kg

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	

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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

Eurofins Midland

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Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10720-1 Project/Site: Dagger Cake Pit SDG: 20-0100-05

Client Sample ID: C-9 4.1'

Date Received: 01/28/22 15:32

Lab Sample ID: 880-10720-1 Date Collected: 01/28/22 10:40

Matrix: Solid

		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
F	Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Ī	otal/NA	Prep	5035			5.01 g	5 mL	18098	01/31/22 07:24	KL	XEN MID
	īotal/NA	Analysis	8021B		1	5 mL	5 mL	18100	01/31/22 11:05	KL	XEN MID
1	otal/NA	Analysis	Total BTEX		1			18172	01/31/22 13:52	AJ	XEN MID
T	otal/NA	Analysis	8015 NM		1			18170	01/31/22 13:01	AJ	XEN MID
	īotal/NA īotal/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	18062 17977	01/28/22 16:00 01/29/22 06:48		XEN MID XEN MID
	Soluble Soluble	Leach Analysis	DI Leach 300.0		1	5.05 g	50 mL	18091 18196	01/29/22 10:41 01/31/22 15:50		XEN MID XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Job ID: 880-10720-1 Client: Larson & Associates, Inc. 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	<u> </u>	NELAP	T104704400-21-22	06-30-22
The following analyte the agency does not o	•	port, but the laboratory is n	not certified by the governing authority.	This list may include analytes for which
Analysis Method	Prep Method	Matrix	Analyte	
Analysis Method 8015 NM	Prep Method	Matrix Solid	Analyte Total TPH	

Method Summary

Client: Larson & Associates, Inc. Project/Site: Dagger Cake Pit

Job ID: 880-10720-1 SDG: 20-0100-05

col	Laboratory
6	XEN MID
OP	XEN MID
6	XEN MID
6	YEN MID

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

Received Lab Sample ID Client Sample ID Matrix Collected 880-10720-1 C-9 4.1' Solid 01/28/22 10:40 01/28/22 15:32

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Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-10720-1

SDG Number: 20-0100-05

Login Number: 10720 List Source: Eurofins Midland

List Number: 1

Creator: Rodriguez, Leticia

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	N/A	

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<6mm (1/4").

Appendix E

Photographs



Spill area adjacent to pond viewing north



Spill area on earthen embankment viewing west



Spill on earthen embankment and liner viewing south



Spill area on liner viewing northwest/north



Spill area on liner viewing west



Spill area on liner viewing west

April 28, 2022



Flowback equipment within spill area viewing east/southeast



High pressure lay flat lines within spill area viewing southeast



Excavated area viewing northwest



Excavated area viewing southwest



Additional excavated area viewing south



Additional excavated area viewing southwest



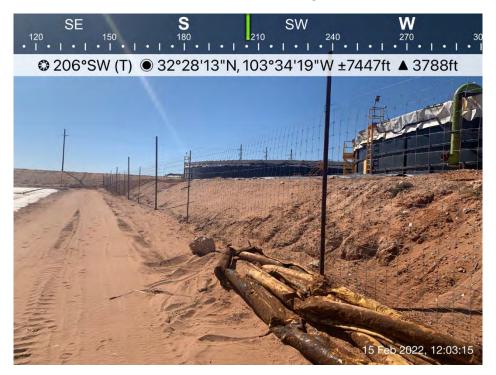
Additional excavated area viewing west



Additional excavated area viewing northwest



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

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:	OGRID:
ADVANCE ENERGY PARTNERS HAT MESA, LLC	372417
11490 Westheimer Rd., Ste 950	Action Number:
Houston, TX 77077	102558
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Deferral Request Approved.	5/20/2022