State of New Mexico
Oil Conservation Division

Incident ID	nRM2009061396
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☑ Description of remediation activities

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

Printed Name: Amy Barnhill Title: Lead Environmental Specialist

Signature: Amy Barnhill Date: 9-22-22

Email: abarnhill@chevron.com Telephone: 432-687-7723

OCD Only

Received by: Robert Hamlet Date: 12/14/2022

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

Closure Approved by: Robert Hamlet Date: 12/14/2022

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

Incident ID	nRM2009061396
District RP	
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Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	34.36 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☑ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☑ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nRM2009061396
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Printed Name: Amy Barnhill Title: Lead Environmental Specialist

Signature:  Date: 9-22-22

Email: abarnhill@chevron.com Telephone: 432-687-7723

OCD Only

Received by: Jocelyn Harimon Date: 09/22/2022

Incident ID	nRM2009061396
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be 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(C)(4) NMAC
- ☑ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

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

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Amy Barnhill Title: Lead Environmental Specialist

Signature:  Date: 9-22-22

Email: abarnhill@chevron.com Telephone: 432-687-7723

OCD Only

Received by: Jocelyn Harimon Date: 09/22/2022

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

Signature: _____ Date: _____

Incident ID	nRM2009061396
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☑ Description of remediation activities

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

Printed Name: Amy Barnhill Title: Lead Environmental Specialist

Signature: Amy Barnhill Date: 9-22-22

Email: abarnhill@chevron.com Telephone: 432-687-7723

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Tracking Number: nRM2009061396
Closure Report
Skeen 23 CTB
Produced Water Release
Eddy County, New Mexico

Latitude: N 32.02129°
Longitude: W -104.25743°

LAI Project No. 20-0107-09

September 15, 2022

Prepared for:
Chevron USA Inc.
6301 Deauville Blvd.
Midland, Texas 79706

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

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

Daniel St. Germain
Daniel St. Germain
Staff Geologist

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Appendix B Karst Risk Potential
Appendix C NMOCD Communication
Appendix D Laboratory Reports
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1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this closure report on behalf of Chevron USA Inc. (Chevron) for submittal to the New Mexico Oil Conservation Division (NMOCD) District II for a produced water release at the Skeen 23 CTB (Site) located in Unit P (SE/4, SE/4), Section 23, Township 26 South, Range 26 East in Eddy County, New Mexico. The geodetic position is North 32.02129° and West -104.25743°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The release was discovered on March 3, 2020, due to a pinhole leak on a discharge pump. Chevron reported that 5.5 barrels (bbls) of produced water was released and that 5 bbls were recovered. The affected area measures approximately 594 square feet and was contained entirely on the production pad. The initial C-141 was submitted to the NMOCD District II and assigned incident number nRM2009061396. Appendix A presents the initial C-141 and Chevron spill calculation.

1.2 Physical Setting

The physical setting is as follows:

- Surface elevation is approximately 3,433 feet above mean sea level (msl).
- Surface topography gradually decreases to the southeast.
- There are no surface water features within 1,000 feet of the Site.
- USGS karst potential data designates the Site as high risk.
- The soils are described as Reeves-Gypsum Land Complex, 0 to 3 percent slopes, where the Reeves setting consists of 0-8 inches of loam, underlain by 8-32 inches of clay loam, and 32-60 inches of gypsiferous material.
- The geology consists of the Salado Formation (Upper Permian), an evaporite sequence composed primarily of gypsum and anhydrite, with a minor amount of halite.
- Groundwater was reported at approximately 34.36 feet below ground surface (bgs) from a well located about 2 miles northwest of the Site and measured in 2019 (C-04269-POD1).

Appendix B presents the karst risk potential map.

1.3 Remediation Standards

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 100 mg/Kg
- Chloride 600 mg/Kg

Furthermore, 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

The release was fully delineated between April 1, 2020, and July 1, 2020. The delineation was documented and reported to the NMOCD in the document titled, "Tracking Number: nRM2009061396, Delineation Report and Remediation Plan, Skeen 23 CTB, Produced Water Release, Eddy County, New Mexico, January 21, 2021" and recommended the following remedial actions:

- Excavate soil from an area measuring approximately 412 square feet, encompassing S-1, S-2, and S-10, to a depth of approximately 1-foot bgs.
- Excavate soil from an area measuring approximately 551 square feet, encompassing S-3 through S-5, to a depth of approximately 2 feet bgs.
- Collect five (5) point composite bottom and sidewall confirmation soil samples every 200 square feet and analyze for BTEX, TPH, and chloride.
- Backfill excavation with caliche verified clean by laboratory analysis for BTEX, TPH, and chloride on the production pad assuming achievement of NMOCD remediation levels.
- Prepare report with photographs for submittal to NMOCD District II.

NMOCD approved the remediation plan on April 12, 2021. Figure 2 presents an aerial map with delineation soil sample locations. Table 1 presents the delineation soil sample analytical data summary. Appendix C presents NMOCD communications.

3.0 REMEDIATION

On March 21 and 22, 2022, Rocky Peak, LLC (Rocky Peak), under supervision of LAI personnel, excavated impacted soil from the spill area encompassing sample locations S-1, S-2, and S-10, an area of about 412 square feet, to a depth of approximately 1-foot bgs. Additionally, impacted soil was excavated from the spill area encompassing sample locations S-3 through S-4, an area of about 551 square feet, to a depth of 2 feet bgs. Excavated soil was temporarily stored on plastic liners near the excavation prior to disposal at the R360 Halfway Facility, an NMOCD permitted disposal facility, located approximately 29 miles northwest of Carlsbad, New Mexico.

On March 22, 2022, LAI personnel collected eleven (11) confirmation composite soil samples every 200 square feet from the bottom and sidewalls of the excavation. The samples were delivered under chain of custody and preservation to Permian Basin Environmental Lab (PBEL) in Midland, Texas and were analyzed for BTEX, TPH EPA SW-846 Methods 8021B, 8015M, respectively, and chloride by EPA Method 300E. PBEL

reported that all samples were below NMOCD closure criteria for benzene (10 mg/Kg), BTEX (50 mg/Kg), and TPH (100 mg/Kg). Chloride was reported above the NMOCD closure criteria of 600 mg/Kg in the following samples:

Sample ID	Location	Depth (Feet)	Chloride (mg/kg)
C-1	Sidewall	0-2	4,200
C-2	Sidewall	0-2	771
C-3	Sidewall	0-1	1,110
C-4	Bottom	2	872
C-5	Bottom	2	653
C-8	Sidewall	1	2,070
C-9	Sidewall	0-1	1,130
C-10	Bottom	1	2,150
C-11	Bottom	1	798

Between May 18 and 20, 2022, Rocky Peak horizontally extended the excavation an additional one (1) foot from sidewall at C-3, two (2) feet from sidewall at C-2, and three (3) feet from sidewall at C-9. Bottom sample locations C-4, C-5, C-10, and C-11 were excavated an additional 1 to 3 feet bgs, depending on chloride field analysis. Additional bottom samples (C-10a, C-11a, C-12) were collected to account for the increasing surface area of the excavation due to previous samples being reported above NMOCD closure criteria. The samples were delivered under chain of custody and preservation to Eurofins-Xenco Laboratories (Xenco) in Midland, Texas. Xenco reported that all samples below NMOCD closure criteria for benzene, BTEX, and chloride. TPH was above closure criteria in sample C-2 (100 mg/kg).

Between May 23 and 25, 2022, Rocky Peak removed additional soil from the C-2 sample area. LAI personnel collected four (4) samples from the bottoms (C-10) and sidewalls (C-1, C-2, and C-8) of the excavation. Three (3) additional samples were collected to account for the expanding boundary (C-1a and C-8a) and increased surface area (C-10a) of the excavation. Xenco analyzed the samples and reported all samples below NMOCD closure criteria for benzene, BTEX, and TPH. Chloride was reported above closure criteria in sample C-10a (4,120 mg/Kg).

On June 13, 2022, LAI personnel resampled C-10a due to significant discrepancy between field chloride analysis and laboratory chloride results. Six (6) additional samples were collected from the bottoms (C-13 through C-16) and sidewalls (C-17 and C-18) of the excavation to account for increased excavation size. Xenco analyzed the samples and reported that all samples were below NMOCD closure criteria for benzene, BTEX, and TPH. Chloride was reported above closure criteria in samples C-15 (608 mg/Kg) and C-16 (650 mg/Kg).

On August 17, 2022, Rocky Peak excavated soil an additional 1-foot bgs from an area measuring about 400 square feet encompassing sample locations C-15 and C-16. Two (2) additional samples (C-19 and C-

20) were collected from the bottom of the excavation. PBEL analyzed the samples and reported that all samples below NMOCD closure criteria for benzene, BTEX, TPH, and chloride. Figure 3 presents the excavation areas and confirmation soil sample locations. Table 2 presents the confirmation soil sample laboratory analytical data summary. Appendix D presents the laboratory reports.

On March 3, 2022, LAI personal collected a composite sample of caliche backfill from New Mexico State Land Office (NMSLO) borrow pit (C0-1086-0) located in Unit F, Section 16, Township 26 South, and Range 27 East, in Eddy County, New Mexico. The Geodetic position is N 32.04497°, W -104.19893°. PBEL analyzed the sample and reported that the sample was below analytical reporting limits for benzene, BTEX, and TPH. Chloride was reported to be 4.19 mg/Kg, and below the maximum concentration (600 mg/Kg) allowed under 19.15.13D(1). Table 2 presents the analytical data for the backfill material. Appendix D presents the laboratory reports. On August 30 and 31, 2022, Rocky Peak backfilled the excavation with backfill material collected from the borrow pit in Eddy County, New Mexico to surface level. The backfill material was compacted and leveled to resemble the production pad prior to the start of the excavation. Appendix E presents photographic documentation of remediation activities.

4.0 CONCLUSION

Laboratory analysis demonstrates that benzene, BTEX, TPH, and chloride were remediated below the NMOCD closure criteria in Table 1, 19.15.29 NMAC, of 10 mg/Kg, 50 mg/Kg, 100 mg/Kg, and 600 mg/Kg, respectively.

5.0 CLOSURE REQUEST

Chevron requests closure for this release.

Tables

Table 1
Soil Sample Analytical Data Summary
Skeen 23 CTB
Eddy County, New Mexico
North 32.021294°, West -104.257430°

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				**10**	**50**				**100**	**600**
S-1	0 - 0.5	4/1/2020	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	**5,460**
	1	5/6/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	275
	3	5/6/2020	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	89.1
	5	5/6/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	111
S-2	0 - 0.5	4/1/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	**11,600**
	1	5/6/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	198
	3	5/6/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	80.5
	5	5/6/2020	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	38.7
S-3	0 - 0.5	4/1/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	**3,560**
	1	5/5/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	**1,950**
	3	5/5/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	117
	5	5/5/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	106
	8	5/5/2020	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	69.1
S-4	0 - 0.5	4/1/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	**5,300**
	1	5/5/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	**3,170**
	3	5/5/2020	In-Situ	0.00584	0.8330	<49.9	<49.9	<49.9	<49.9	219
	5	5/5/2020	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	89.3
	6	5/5/2020	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	50.4
S-5	0 - 0.5	4/1/2020	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	**9,460**
	1	5/1/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	230
	5	5/1/2020	In-Situ	<0.0199	<0.00199	<50.0	<50.0	<50.0	<50.0	**1,710**
	5	7/1/2020	In-Situ	--	--	--	--	--	--	106
	10	7/1/2020	In-Situ	--	--	--	--	--	--	96.5
	15	7/1/2020	In-Situ	--	--	--	--	--	--	151
	20	7/1/2020	In-Situ	--	--	--	--	--	--	187
S-6	0 - 0.5	4/1/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	380
	1	5/5/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	134
	3	5/5/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	72.3
	5	5/5/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	29.1
S-7	0 - 0.5	4/1/2020	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<5.02
	0.5 - 1	4/1/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<4.95

Table 1
Soil Sample Analytical Data Summary
Skeen 23 CTB
Eddy County, New Mexico
North 32.021294°, West -104.257430°

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				**10**	**50**				**100**	**600**
S-8	0 - 0.5	4/1/2020	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<4.99
	0.5 - 1	4/1/2020	In-Situ	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<4.97
S-9	0 - 0.5	4/1/2020	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	170
	1	5/6/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	36.6
	3	5/6/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	27.9
	5	5/6/2020	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	20.3
S-10	0 - 0.5	4/1/2020	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	**7,230**
	1	5/1/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	191
	3	5/1/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	50.2
	5	5/1/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<5.00

Notes:
Analysis performed by Xenco Laboratories (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)
<: indicates parameter concentration is below analytical method reporting limit
Bold and highlighted indicates parameter concentration above NMOCD remediation levels

Table 2
Confirmation Soil Sample Analytical Data Summary
Chevron USA, Skeen 23 CTB
Eddy County, New Mexico
North 32.021294, West -104.257430

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**	**600**
C-1	1	Sidewall	0 - 2	3/22/2022	Excavated	<0.00112	<0.00225	<28.1	<28.1	<28.1	<28.1	**4,200**
	2		0 - 4	5/23/2022	In-Situ	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	37.6
C-1a	2	Sidewall	0 - 4	5/23/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	252
C-2	1	Sidewall	0 - 2	3/22/2022	Excavated	<0.00118	<0.00235	<29.4	<29.4	<29.4	<29.4	**771**
	2			5/23/2022	Excavated	<0.00199	<0.00398	100	<50.0	<50.0	**100**	219
	2			5/25/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	58.2
C-3	1	Sidewall	0 - 1	3/22/2022	Excavated	<0.00119	<0.00238	<29.8	<29.8	<29.8	<29.8	**1,110**
	2			5/23/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	165
C-4	1	Bottom	2	3/22/2022	Excavated	<0.00120	<0.00241	<30.1	<30.1	<30.1	<30.1	**872**
	2		4	5/23/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	270
C-5	1	Bottom	2	3/22/2022	Excavated	<0.00119	<0.00238	<29.8	<29.8	<29.8	<29.8	**653**
	2		4	5/23/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	337
C-6	1	Bottom	2	3/22/2022	In-Situ	<0.00122	<0.00244	<30.5	<30.5	<30.5	<30.5	312
C-7	1	Bottom	1	3/22/2022	In-Situ	<0.00125	<0.00250	<31.2	<31.2	<31.2	<31.2	567
C-8	1	Sidewall	0 - 1	3/22/2022	Excavated	<0.00110	<0.00220	<27.5	<27.5	<27.5	<27.5	**2,070**
	2		0 - 3	5/23/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	342
C-8a	2	Sidewall	0 - 4.5	5/23/2022	In-Situ	<0.00200	<0.00399	72.7	<50.0	<50.0	72.7	319
C-9	1	Sidewall	0 - 1	3/22/2022	Excavated	<0.00110	<0.00220	<27.5	<27.5	<27.5	<27.5	**1,130**
	2		0 - 2	5/23/2022	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	352
C-10	1	Bottom	1	3/22/2022	Excavated	<0.00120	<0.00241	<30.1	<30.1	<30.1	<30.1	**2,150**
	2		4.5	5/23/2022	In-Situ	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	198
***C-10a**	2	Bottom	4.5	5/23/2022	In-Situ	<0.00199	<0.00398	90.4	<49.9	<49.9	90.4	**4,120**
	2		4.5	6/13/2022	In-Situ	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	599
C-11	1	Bottom	1	3/22/2022	Excavated	<0.00120	<0.00241	<30.1	<30.1	<30.1	<30.1	**798**
	2		2.5	5/23/2022	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	343
C-11a	2	Bottom	2.5	5/23/2022	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	589
C-12	2	Bottom	4	5/23/2022	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	508
C-13	2	Bottom	2	6/13/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	462
C-14	2	Bottom	2	6/13/2022	In-Situ	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	573
C-15	2	Bottom	2	6/13/2022	Excavated	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**608**
	1		3	8/17/2022	In-Situ	<0.00116	<0.00233	<29.1	<29.1	<29.1	<29.1	244
C-16	2	Bottom	4	6/13/2022	Excavated	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	**650**

Table 2
Confirmation Soil Sample Analytical Data Summary
Chevron USA, Skeen 23 CTB
Eddy County, New Mexico
North 32.021294, West -104.257430

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**	**600**
[1]		5	8/17/2022	In-Situ	<0.00119	<0.00238	<29.8	<29.8	<29.8	<29.8	171
C-17 [2]	Sidewall	0 - 2	6/13/2022	In-Situ	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	421
C-18 [2]	Sidewall	0 - 2	6/13/2022	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	452
C-19 [1]	Bottom	2	8/17/2022	In-Situ	<0.00118	<0.00235	<29.4	<29.4	<29.4	<29.4	14.6
C-20 [1]	Bottom	3	8/17/2022	In-Situ	<0.00119	<0.00238	<29.8	<29.8	<29.8	<29.8	196
Backfill [1]	--	--	3/23/2022	In-Situ	<0.00108	<0.00215	<26.9	<26.9	<26.9	<26.9	4.19

Notes:

([1]) analysis performed by Permian Basin Environmental Lab (PBEL), Midland, Texas by EPA SW-846 Methods 8021B (BTEX) and 8015M (TPH), and Method 300 (chlorid

([2]) analysis performed by Xenco Laboratories (Xenco), Midland, Texas by EPA SW-846 Methods 8021B (BTEX) and 8015M (TPH), and Method 300 (chloride)

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

<: indicates parameter concentration is below analytical method reporting limit

* Sample Location C-10a was resampled due to a discrepancy from field data and laboratory data

Bold and highlighted indicates parameter concentration above NMOCD closure crite

Figures

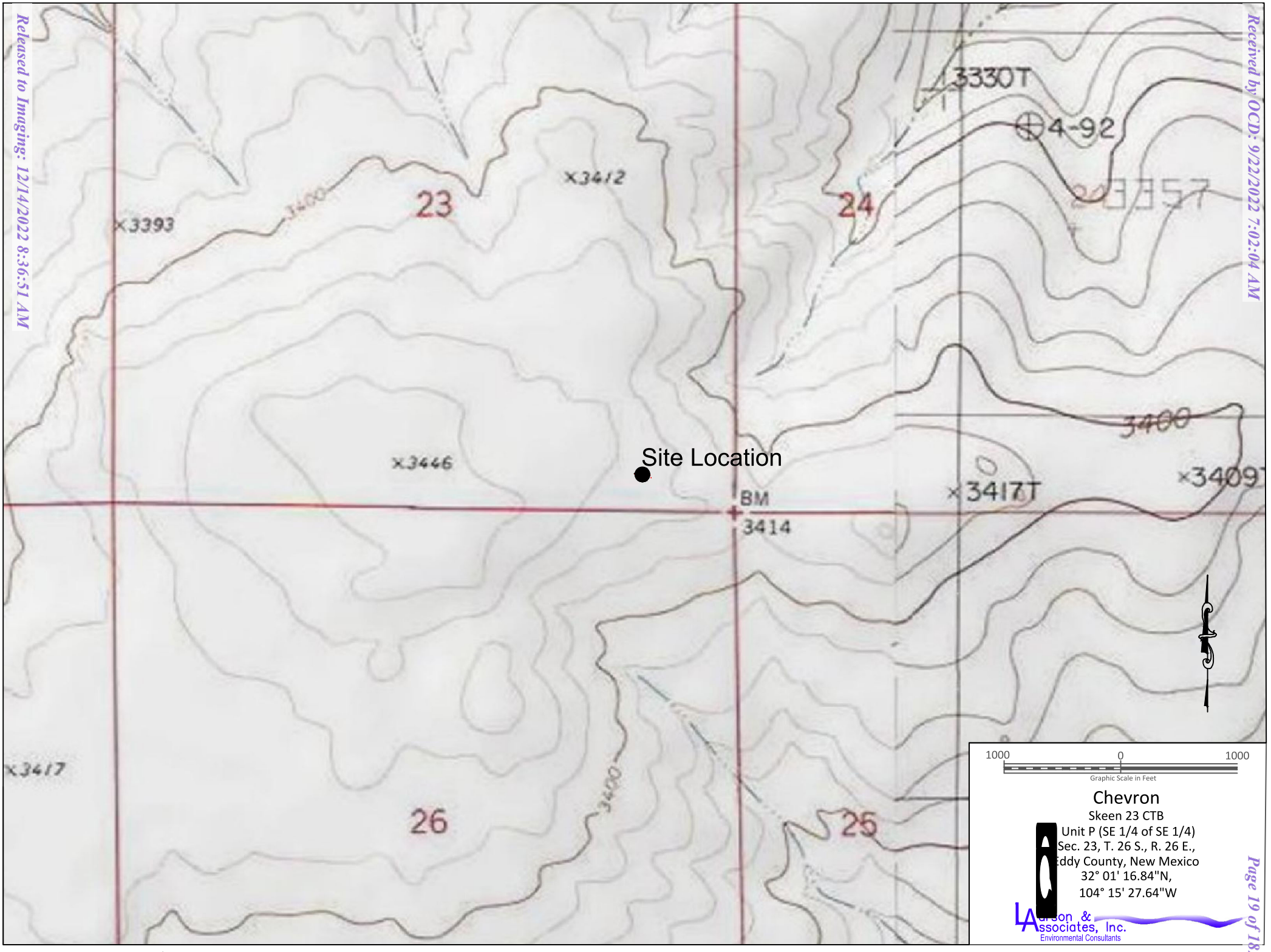


Figure 1 - Topographic Map

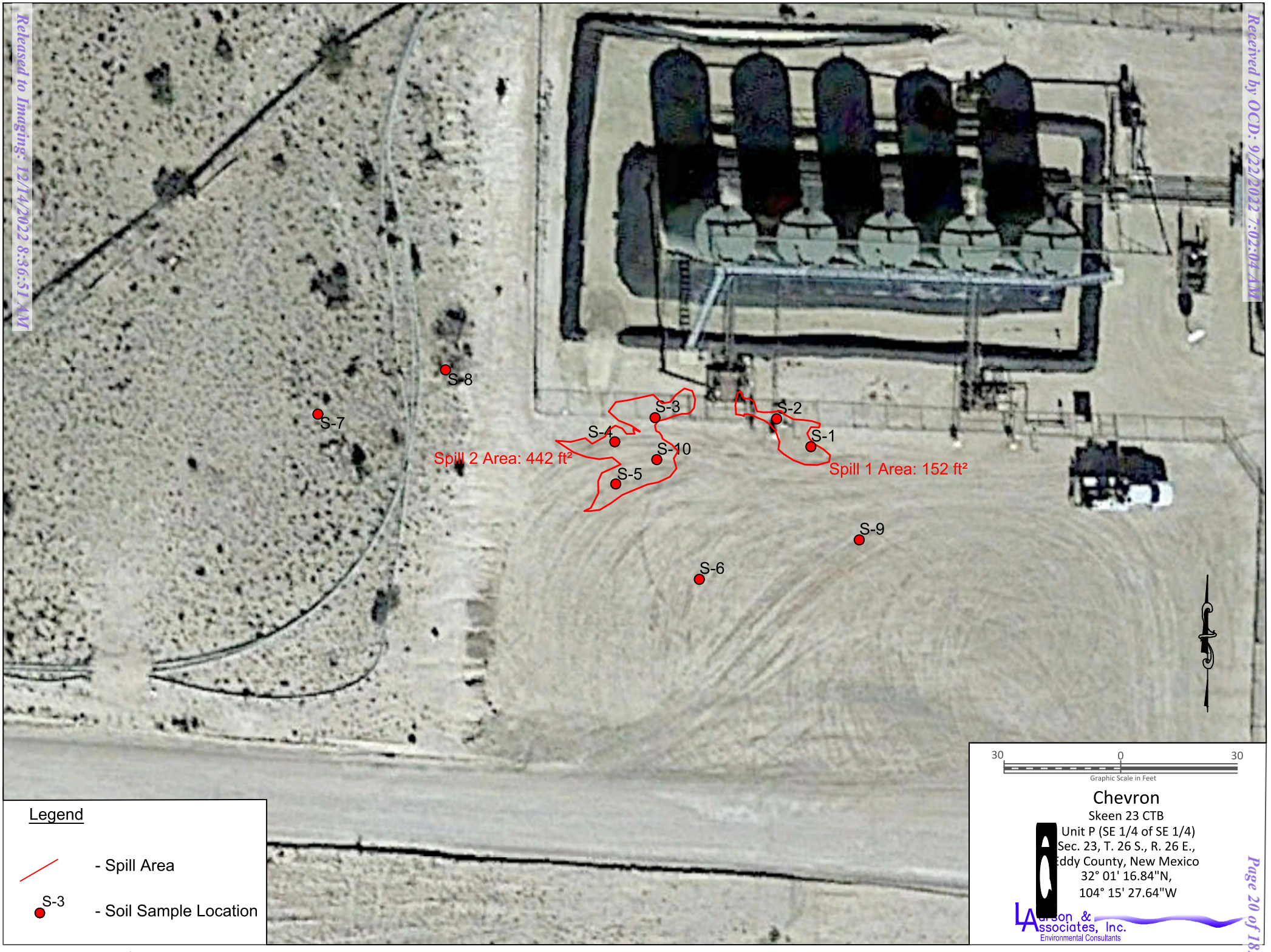


Figure 2 - Aerial Map

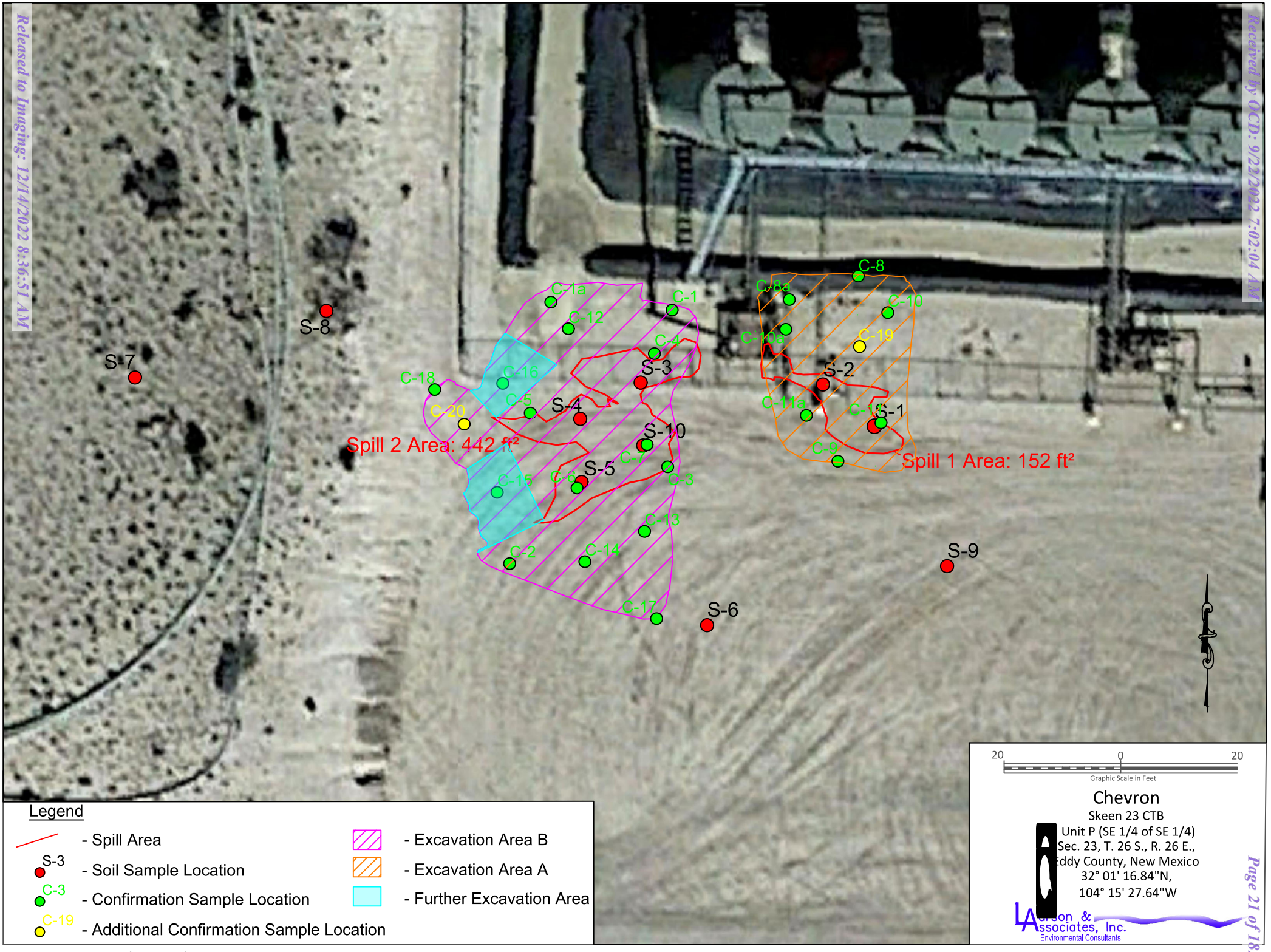


Figure 3 - Aerial Map Showing Excavation Locations

Appendix A

Initial C-141 with Chevron Spill Calculation

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: CHEVRON USA INC.	OGRID: 4323
Contact Name: Josepha DeLeon	Contact Telephone: 575-263-0424
Contact email: jdxd@chevron.com	Incident # *(assigned by OCD)*
Contact mailing address: 1616 E. Bender Blvd., Hobbs, NM 88240	

Location of Release Source

Latitude 32.021305 Longitude: -104.257114
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Skeen 23 CTB	Site Type: Central Tank Battery
Date Release Discovered: 03/03/2020	API# *(if applicable): N/A*

Unit Letter	Section	Township	Range	County
P	22	26S	26E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 5.5 barrels	Volume Recovered (bbls) 5 barrels
	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:

Pinhole leak on discharge pump resulted in 5.5 barrels produced water to well pad. Recovered 5 barrels.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: JdeLeon Date: March 12, 2020

Printed Name: Josepha DeLeon Title: Environmental Compliance Specialist

email: jdxd @chevron.com Telephone: 575-263-0424

OCD Only

Received by: _____ Date: _____

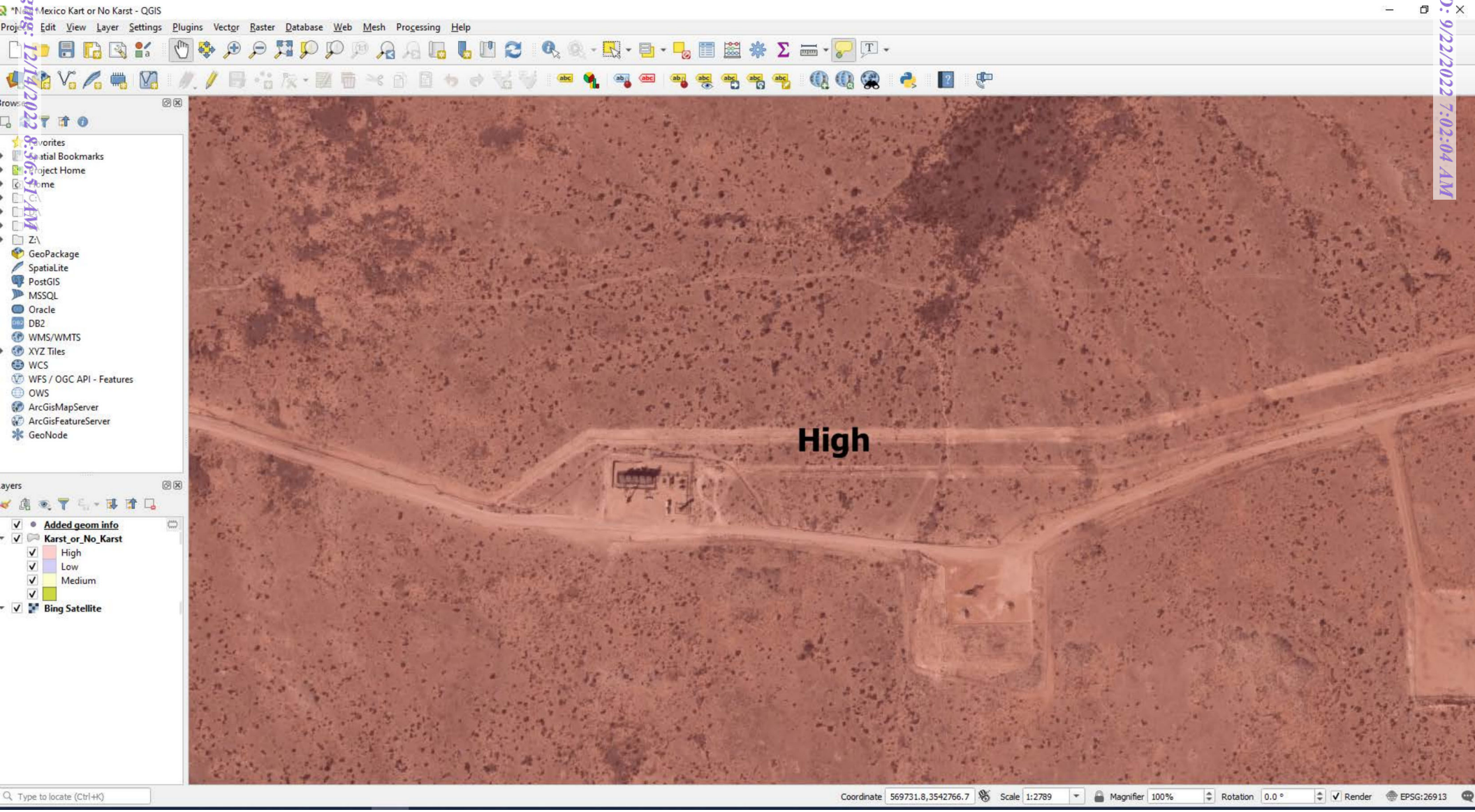
State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Location			SKEEN 23 CTB		
Area	Standing Liquid	In Soil	size	Oil Volume	Water Volume
1	0.0208	0.06	23 x 13.5	0	1.15
2	0.0208	0.12	22.25 x 29	0	2.39
3	0.0208	0.04	12.6667 x 17.3333	0	0.81
4	0.0208	0.04	27.5000 x 8	0	0.82
5	0.0208	0.02	30 x 3	0	0.33
			Total Fluid	0	5.5
	Fluid Recovered		Oil Volume	Water Volume	
			0 Barrel	5 barrel	

Appendix B

Karst Risk Potential



Appendix C

NMOCD Communications

From:	Barnhill, Amy D.
To:	Robert Nelson
Subject:	The Oil Conservation Division (OCD) has approved the application, Application ID: 15261 Skeen 23 CTB
Date:	Monday, April 12, 2021 3:52:21 PM

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Monday, April 12, 2021 2:50 PM
To: Barnhill, Amy D. <ABarnhill@chevron.com>
Subject: [**EXTERNAL**] The Oil Conservation Division (OCD) has approved the application, Application ID: 15261

To whom it may concern (c/o Amy Barnhill for CHEVRON U S A INC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nRM2009061396, with the following conditions:

- **None**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Cristina Eads
Environmental Scientist and Specialist
505-670-5601
Cristina.Eads@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Appendix D

Laboratory Reports

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

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Sheen 23 CTB

Project Number: 20-0107-09

Location: New Mexico

Lab Order Number: 2C28001

NELAP ACCREDITED TNI LABORATORY

Current Certification

Report Date: 04/04/22

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-1	2C28001-01	Soil	03/22/22 09:00	03-28-2022 10:12
C-2	2C28001-02	Soil	03/22/22 09:01	03-28-2022 10:12
C-3	2C28001-03	Soil	03/22/22 09:04	03-28-2022 10:12
C-4	2C28001-04	Soil	03/22/22 09:06	03-28-2022 10:12
C-5	2C28001-05	Soil	03/22/22 09:08	03-28-2022 10:12
C-6	2C28001-06	Soil	03/22/22 09:10	03-28-2022 10:12
C-7	2C28001-07	Soil	03/22/22 09:12	03-28-2022 10:12
C-8	2C28001-08	Soil	03/22/22 12:00	03-28-2022 10:12
C-9	2C28001-09	Soil	03/22/22 12:10	03-28-2022 10:12
C-10	2C28001-10	Soil	03/22/22 12:20	03-28-2022 10:12
C-11	2C28001-11	Soil	03/22/22 12:30	03-28-2022 10:12

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

C-1

2C28001-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00112	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:14	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:14	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:14	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:14	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:14	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*108 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 20:14*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*102 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 20:14*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**4200**	56.2	mg/kg dry	50	P2C3005	03/30/22 10:33	03/30/22 23:34	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 07:06	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 07:06	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 07:06	TPH 8015M	
Surrogate: 1-Chlorooctane		*112 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 07:06*	*TPH 8015M*	
Surrogate: o-Terphenyl		*126 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 07:06*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	03/30/22 10:00	03/31/22 07:06	calc	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

C-2

2C28001-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00118	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:35	EPA 8021B	
Toluene	ND	0.00118	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:35	EPA 8021B	
Ethylbenzene	ND	0.00118	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:35	EPA 8021B	
Xylene (p/m)	ND	0.00235	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:35	EPA 8021B	
Xylene (o)	ND	0.00118	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:35	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*107 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 20:35*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*102 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 20:35*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**771**	29.4	mg/kg dry	25	P2C3005	03/30/22 10:33	03/30/22 23:49	EPA 300.0	
% Moisture	**15.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.4	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 07:27	TPH 8015M	
>C12-C28	ND	29.4	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 07:27	TPH 8015M	
>C28-C35	ND	29.4	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 07:27	TPH 8015M	
Surrogate: 1-Chlorooctane		*110 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 07:27*	*TPH 8015M*	
Surrogate: o-Terphenyl		*125 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 07:27*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	29.4	mg/kg dry	1	[CALC]	03/30/22 10:00	03/31/22 07:27	calc	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

C-3

2C28001-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00119	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:56	EPA 8021B	
Toluene	ND	0.00119	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:56	EPA 8021B	
Ethylbenzene	ND	0.00119	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:56	EPA 8021B	
Xylene (p/m)	ND	0.00238	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:56	EPA 8021B	
Xylene (o)	ND	0.00119	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 20:56	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*105 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 20:56*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*103 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 20:56*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1110**	29.8	mg/kg dry	25	P2C3005	03/30/22 10:33	03/31/22 00:05	EPA 300.0	
% Moisture	**16.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.8	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 07:48	TPH 8015M	
>C12-C28	ND	29.8	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 07:48	TPH 8015M	
>C28-C35	ND	29.8	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 07:48	TPH 8015M	
Surrogate: 1-Chlorooctane		*110 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 07:48*	*TPH 8015M*	
Surrogate: o-Terphenyl		*127 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 07:48*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	29.8	mg/kg dry	1	[CALC]	03/30/22 10:00	03/31/22 07:48	calc	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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2C28001-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 21:18	EPA 8021B	
Toluene	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 21:18	EPA 8021B	
Ethylbenzene	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 21:18	EPA 8021B	
Xylene (p/m)	ND	0.00241	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 21:18	EPA 8021B	
Xylene (o)	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 21:18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*102 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 21:18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*104 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 21:18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**872**	30.1	mg/kg dry	25	P2C3005	03/30/22 10:33	03/31/22 00:20	EPA 300.0	
% Moisture	**17.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	30.1	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 14:12	TPH 8015M	
>C12-C28	ND	30.1	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 14:12	TPH 8015M	
>C28-C35	ND	30.1	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 14:12	TPH 8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 14:12*	*TPH 8015M*	
Surrogate: o-Terphenyl		*118 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 14:12*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	30.1	mg/kg dry	1	[CALC]	03/30/22 10:00	03/31/22 14:12	calc	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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2C28001-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00119	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 21:39	EPA 8021B	
Toluene	ND	0.00119	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 21:39	EPA 8021B	
Ethylbenzene	ND	0.00119	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 21:39	EPA 8021B	
Xylene (p/m)	ND	0.00238	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 21:39	EPA 8021B	
Xylene (o)	ND	0.00119	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 21:39	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*103 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 21:39*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*106 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 21:39*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**653**	29.8	mg/kg dry	25	P2C3005	03/30/22 10:33	03/31/22 00:35	EPA 300.0	
% Moisture	**16.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.8	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 14:34	TPH 8015M	
>C12-C28	ND	29.8	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 14:34	TPH 8015M	
>C28-C35	ND	29.8	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 14:34	TPH 8015M	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 14:34*	*TPH 8015M*	
Surrogate: o-Terphenyl		*118 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 14:34*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	29.8	mg/kg dry	1	[CALC]	03/30/22 10:00	03/31/22 14:34	calc	

DRAFT REPORT

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.

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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2C28001-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00122	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 22:00	EPA 8021B	
Toluene	ND	0.00122	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 22:00	EPA 8021B	
Ethylbenzene	ND	0.00122	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 22:00	EPA 8021B	
Xylene (p/m)	ND	0.00244	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 22:00	EPA 8021B	
Xylene (o)	ND	0.00122	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 22:00	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*102 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 22:00*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*103 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 22:00*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**312**	30.5	mg/kg dry	25	P2C3005	03/30/22 10:33	03/31/22 00:50	EPA 300.0	
% Moisture	**18.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	30.5	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 14:56	TPH 8015M	
>C12-C28	ND	30.5	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 14:56	TPH 8015M	
>C28-C35	ND	30.5	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 14:56	TPH 8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 14:56*	*TPH 8015M*	
Surrogate: o-Terphenyl		*122 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 14:56*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	30.5	mg/kg dry	1	[CALC]	03/30/22 10:00	03/31/22 14:56	calc	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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2C28001-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00125	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:04	EPA 8021B	
Toluene	ND	0.00125	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:04	EPA 8021B	
Ethylbenzene	ND	0.00125	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:04	EPA 8021B	
Xylene (p/m)	ND	0.00250	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:04	EPA 8021B	
Xylene (o)	ND	0.00125	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:04	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*101 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 23:04*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*104 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 23:04*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**567**	31.2	mg/kg dry	25	P2C3005	03/30/22 10:33	03/31/22 01:36	EPA 300.0	
% Moisture	**20.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	31.2	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 15:17	TPH 8015M	
>C12-C28	ND	31.2	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 15:17	TPH 8015M	
>C28-C35	ND	31.2	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 15:17	TPH 8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 15:17*	*TPH 8015M*	
Surrogate: o-Terphenyl		*120 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 15:17*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	31.2	mg/kg dry	1	[CALC]	03/30/22 10:00	03/31/22 15:17	calc	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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2C28001-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00110	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:25	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:25	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:25	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:25	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:25	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*102 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 23:25*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*104 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 23:25*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2070**	54.9	mg/kg dry	50	P2C3005	03/30/22 10:33	03/31/22 02:22	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 15:39	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 15:39	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 15:39	TPH 8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 15:39*	*TPH 8015M*	
Surrogate: o-Terphenyl		*122 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 15:39*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	03/30/22 10:00	03/31/22 15:39	calc	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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2C28001-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00110	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:46	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:46	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:46	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:46	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P2C2912	03/29/22 15:58	03/29/22 23:46	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*103 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 23:46*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*101 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/29/22 23:46*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1130**	27.5	mg/kg dry	25	P2C3005	03/30/22 10:33	03/31/22 02:37	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 16:01	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 16:01	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 16:01	TPH 8015M	
Surrogate: 1-Chlorooctane		*108 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 16:01*	*TPH 8015M*	
Surrogate: o-Terphenyl		*124 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 16:01*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	03/30/22 10:00	03/31/22 16:01	calc	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

C-10

2C28001-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 00:08	EPA 8021B	
Toluene	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 00:08	EPA 8021B	
Ethylbenzene	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 00:08	EPA 8021B	
Xylene (p/m)	ND	0.00241	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 00:08	EPA 8021B	
Xylene (o)	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 00:08	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*103 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/30/22 00:08*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*100 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/30/22 00:08*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2150**	30.1	mg/kg dry	25	P2C3005	03/30/22 10:33	03/31/22 02:53	EPA 300.0	
% Moisture	**17.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	30.1	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 16:23	TPH 8015M	
>C12-C28	ND	30.1	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 16:23	TPH 8015M	
>C28-C35	ND	30.1	mg/kg dry	1	P2C3002	03/30/22 10:00	03/31/22 16:23	TPH 8015M	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 16:23*	*TPH 8015M*	
Surrogate: o-Terphenyl		*116 %*	*70-130*		*P2C3002*	*03/30/22 10:00*	*03/31/22 16:23*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	30.1	mg/kg dry	1	[CALC]	03/30/22 10:00	03/31/22 16:23	calc	

DRAFT REPORT

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

C-11

2C28001-11 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 00:29	EPA 8021B	
Toluene	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 00:29	EPA 8021B	
Ethylbenzene	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 00:29	EPA 8021B	
Xylene (p/m)	ND	0.00241	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 00:29	EPA 8021B	
Xylene (o)	ND	0.00120	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 00:29	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*105 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/30/22 00:29*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*102 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/30/22 00:29*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**798**	30.1	mg/kg dry	25	P2C3005	03/30/22 10:33	03/31/22 03:08	EPA 300.0	
% Moisture	**17.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	30.1	mg/kg dry	1	P2C3004	03/30/22 11:00	04/01/22 08:13	TPH 8015M	
>C12-C28	ND	30.1	mg/kg dry	1	P2C3004	03/30/22 11:00	04/01/22 08:13	TPH 8015M	
>C28-C35	ND	30.1	mg/kg dry	1	P2C3004	03/30/22 11:00	04/01/22 08:13	TPH 8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*P2C3004*	*03/30/22 11:00*	*04/01/22 08:13*	*TPH 8015M*	
Surrogate: o-Terphenyl		*109 %*	*70-130*		*P2C3004*	*03/30/22 11:00*	*04/01/22 08:13*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	30.1	mg/kg dry	1	[CALC]	03/30/22 11:00	04/01/22 08:13	calc	

DRAFT REPORT

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C2912 - General Preparation (GC)										
Blank (P2C2912-BLK1)				Prepared & Analyzed: 03/29/22						
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	*0.126*		"	*0.120*		*105*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.122*		"	*0.120*		*102*	*80-120*			
LCS (P2C2912-BS1)				Prepared & Analyzed: 03/29/22						
Benzene	0.104	0.00100	mg/kg wet	0.100		104	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.116	0.00100	"	0.100		116	80-120			
Xylene (p/m)	0.231	0.00200	"	0.200		116	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 4-Bromofluorobenzene	*0.130*		"	*0.120*		*109*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.123*		"	*0.120*		*103*	*80-120*			
LCS Dup (P2C2912-BSD1)				Prepared & Analyzed: 03/29/22						
Benzene	0.112	0.00100	mg/kg wet	0.100		112	80-120	7.88	20	
Toluene	0.112	0.00100	"	0.100		112	80-120	7.50	20	
Ethylbenzene	0.116	0.00100	"	0.100		116	80-120	0.362	20	
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120	2.75	20	
Xylene (o)	0.115	0.00100	"	0.100		115	80-120	7.27	20	
Surrogate: 1,4-Difluorobenzene	*0.122*		"	*0.120*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.129*		"	*0.120*		*107*	*80-120*			
Calibration Blank (P2C2912-CCB1)				Prepared & Analyzed: 03/29/22						
Benzene	0.00		mg/kg wet							
Toluene	0.210		"							
Ethylbenzene	0.150		"							
Xylene (p/m)	0.220		"							
Xylene (o)	0.140		"							
Surrogate: 4-Bromofluorobenzene	*0.123*		"	*0.120*		*102*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.121*		"	*0.120*		*101*	*80-120*			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C2912 - General Preparation (GC)										
Calibration Blank (P2C2912-CCB2)				Prepared & Analyzed: 03/29/22						
Benzene	0.120		mg/kg wet							
Toluene	0.160		"							
Ethylbenzene	0.140		"							
Xylene (p/m)	0.310		"							
Xylene (o)	0.210		"							
Surrogate: 4-Bromofluorobenzene	*0.119*		*"*	*0.120*		*98.9*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.119*		*"*	*0.120*		*99.1*	*80-120*			
Calibration Check (P2C2912-CCV1)				Prepared & Analyzed: 03/29/22						
Benzene	0.0966	0.00100	mg/kg wet	0.100		96.6	80-120			
Toluene	0.100	0.00100	"	0.100		100	80-120			
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120			
Xylene (p/m)	0.224	0.00200	"	0.200		112	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 4-Bromofluorobenzene	*0.127*		*"*	*0.120*		*106*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.123*		*"*	*0.120*		*102*	*75-125*			
Calibration Check (P2C2912-CCV2)				Prepared & Analyzed: 03/29/22						
Benzene	0.110	0.00100	mg/kg wet	0.100		110	80-120			
Toluene	0.112	0.00100	"	0.100		112	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.237	0.00200	"	0.200		118	80-120			
Xylene (o)	0.119	0.00100	"	0.100		119	80-120			
Surrogate: 4-Bromofluorobenzene	*0.127*		*"*	*0.120*		*106*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.122*		*"*	*0.120*		*102*	*75-125*			
Calibration Check (P2C2912-CCV3)				Prepared: 03/29/22 Analyzed: 03/30/22						
Benzene	0.114	0.00100	mg/kg wet	0.100		114	80-120			
Toluene	0.116	0.00100	"	0.100		116	80-120			
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120			
Xylene (p/m)	0.234	0.00200	"	0.200		117	80-120			
Xylene (o)	0.118	0.00100	"	0.100		118	80-120			
Surrogate: 1,4-Difluorobenzene	*0.123*		*"*	*0.120*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.128*		*"*	*0.120*		*107*	*75-125*			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C2912 - General Preparation (GC)										
Matrix Spike (P2C2912-MS1)		**Source: 2C29006-01**		Prepared: 03/29/22 Analyzed: 03/30/22						
Benzene	0.0683	0.00103	mg/kg dry	0.103	0.00106	65.2	80-120			QM-05
Toluene	0.0535	0.00103	"	0.103	0.00335	48.6	80-120			QM-05
Ethylbenzene	0.0462	0.00103	"	0.103	0.0120	33.2	80-120			QM-05
Xylene (p/m)	0.0961	0.00206	"	0.206	0.0366	28.8	80-120			QM-05
Xylene (o)	0.0348	0.00103	"	0.103	0.00726	26.8	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*0.133*		*"*	*0.124*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.123*		*"*	*0.124*		*99.2*	*80-120*			
Matrix Spike Dup (P2C2912-MSD1)		**Source: 2C29006-01**		Prepared: 03/29/22 Analyzed: 03/30/22						
Benzene	0.0641	0.00103	mg/kg dry	0.103	0.00106	61.2	80-120	6.39	20	QM-05
Toluene	0.0482	0.00103	"	0.103	0.00335	43.5	80-120	11.0	20	QM-05
Ethylbenzene	0.0414	0.00103	"	0.103	0.0120	28.6	80-120	14.8	20	QM-05
Xylene (p/m)	0.0862	0.00206	"	0.206	0.0366	24.0	80-120	18.2	20	QM-05
Xylene (o)	0.0313	0.00103	"	0.103	0.00726	23.3	80-120	13.8	20	QM-05
Surrogate: 1,4-Difluorobenzene	*0.136*		*"*	*0.124*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.120*		*"*	*0.124*		*97.1*	*80-120*			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3005 - * DEFAULT PREP *** **										
Blank (P2C3005-BLK1)				Prepared & Analyzed: 03/30/22						
Chloride	ND	1.00	mg/kg wet							
LCS (P2C3005-BS1)				Prepared & Analyzed: 03/30/22						
Chloride	42.0		mg/kg	40.0		105	90-110			
LCS Dup (P2C3005-BSD1)				Prepared & Analyzed: 03/30/22						
Chloride	42.7		mg/kg	40.0		107	90-110	1.67	10	
Calibration Blank (P2C3005-CCB1)				Prepared & Analyzed: 03/30/22						
Chloride	0.00		mg/kg wet							
Calibration Blank (P2C3005-CCB2)				Prepared: 03/30/22 Analyzed: 03/31/22						
Chloride	0.114		mg/kg wet							
Calibration Check (P2C3005-CCV1)				Prepared & Analyzed: 03/30/22						
Chloride	21.5		mg/kg	20.0		108	90-110			
Calibration Check (P2C3005-CCV2)				Prepared: 03/30/22 Analyzed: 03/31/22						
Chloride	20.8		mg/kg	20.0		104	90-110			
Calibration Check (P2C3005-CCV3)				Prepared: 03/30/22 Analyzed: 03/31/22						
Chloride	21.3		mg/kg	20.0		107	90-110			
Matrix Spike (P2C3005-MS1)		**Source: 2C25021-01**		Prepared & Analyzed: 03/30/22						
Chloride	666	1.10	mg/kg dry	275	477	68.9	80-120			QM-05
Matrix Spike (P2C3005-MS2)		**Source: 2C28001-07**		Prepared: 03/30/22 Analyzed: 03/31/22						
Chloride	2120	31.2	mg/kg dry	1560	567	99.2	80-120			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3005 - * DEFAULT PREP *** **										
Matrix Spike Dup (P2C3005-MSD1)	**Source: 2C25021-01**			Prepared & Analyzed: 03/30/22						
Chloride	733	1.10	mg/kg dry	275	477	93.5	80-120	9.65	20	
Matrix Spike Dup (P2C3005-MSD2)	**Source: 2C28001-07**			Prepared: 03/30/22 Analyzed: 03/31/22						
Chloride	2260	31.2	mg/kg dry	1560	567	108	80-120	6.46	20	
Batch P2C3006 - * DEFAULT PREP *** **										
Blank (P2C3006-BLK1)				Prepared & Analyzed: 03/30/22						
% Moisture	ND	0.1	%							
Blank (P2C3006-BLK2)				Prepared & Analyzed: 03/30/22						
% Moisture	ND	0.1	%							
Blank (P2C3006-BLK3)				Prepared & Analyzed: 03/30/22						
% Moisture	ND	0.1	%							
Blank (P2C3006-BLK4)				Prepared & Analyzed: 03/30/22						
% Moisture	ND	0.1	%							
Duplicate (P2C3006-DUP1)	**Source: 2C25009-37**			Prepared & Analyzed: 03/30/22						
% Moisture	10.0	0.1	%		9.0			10.5	20	
Duplicate (P2C3006-DUP2)	**Source: 2C25011-05**			Prepared & Analyzed: 03/30/22						
% Moisture	8.0	0.1	%		7.0			13.3	20	
Duplicate (P2C3006-DUP3)	**Source: 2C25012-06**			Prepared & Analyzed: 03/30/22						
% Moisture	4.0	0.1	%		4.0			0.00	20	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3006 - * DEFAULT PREP *** **										
Duplicate (P2C3006-DUP4)		**Source: 2C25017-05**		Prepared & Analyzed: 03/30/22						
% Moisture	12.0	0.1	%		11.0			8.70	20	
Duplicate (P2C3006-DUP5)		**Source: 2C28001-05**		Prepared & Analyzed: 03/30/22						
% Moisture	17.0	0.1	%		16.0			6.06	20	
Duplicate (P2C3006-DUP6)		**Source: 2C28009-02**		Prepared & Analyzed: 03/30/22						
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P2C3006-DUP7)		**Source: 2C29004-04**		Prepared & Analyzed: 03/30/22						
% Moisture	2.0	0.1	%		2.0			0.00	20	
Duplicate (P2C3006-DUP8)		**Source: 2C29008-01**		Prepared & Analyzed: 03/30/22						
% Moisture	ND	0.1	%		1.0			200	20	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3002 - * DEFAULT PREP *** **										
Blank (P2C3002-BLK1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*89.8*		*"*	*100*		*89.8*	*70-130*			
Surrogate: o-Terphenyl	*49.6*		*"*	*50.0*		*99.1*	*70-130*			
LCS (P2C3002-BS1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	1040	25.0	mg/kg wet	1000		104	75-125			
>C12-C28	1010	25.0	"	1000		101	75-125			
Surrogate: 1-Chlorooctane	*116*		*"*	*100*		*116*	*70-130*			
Surrogate: o-Terphenyl	*54.8*		*"*	*50.0*		*110*	*70-130*			
LCS Dup (P2C3002-BSD1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	1050	25.0	mg/kg wet	1000		105	75-125	1.46	20	
>C12-C28	1040	25.0	"	1000		104	75-125	2.13	20	
Surrogate: 1-Chlorooctane	*112*		*"*	*100*		*112*	*70-130*			
Surrogate: o-Terphenyl	*48.8*		*"*	*50.0*		*97.6*	*70-130*			
Calibration Check (P2C3002-CCV1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	552	25.0	mg/kg wet	500		110	85-115			
>C12-C28	482	25.0	"	500		96.4	85-115			
Surrogate: 1-Chlorooctane	*99.9*		*"*	*100*		*99.9*	*70-130*			
Surrogate: o-Terphenyl	*48.6*		*"*	*50.0*		*97.1*	*70-130*			
Calibration Check (P2C3002-CCV2)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	534	25.0	mg/kg wet	500		107	85-115			
>C12-C28	466	25.0	"	500		93.2	85-115			
Surrogate: 1-Chlorooctane	*105*		*"*	*100*		*105*	*70-130*			
Surrogate: o-Terphenyl	*48.4*		*"*	*50.0*		*96.7*	*70-130*			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3002 - * DEFAULT PREP *** **										
Calibration Check (P2C3002-CCV3)				Prepared: 03/30/22 Analyzed: 04/01/22						
C6-C12	537	25.0	mg/kg wet	500		107	85-115			
>C12-C28	477	25.0	"	500		95.3	85-115			
Surrogate: 1-Chlorooctane	*98.9*		*"*	*100*		*98.9*	*70-130*			
Surrogate: o-Terphenyl	*47.2*		*"*	*50.0*		*94.4*	*70-130*			
Matrix Spike (P2C3002-MS1)		**Source: 2C28001-10**		Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	1060	30.1	mg/kg dry	1200	15.5	86.8	75-125			
>C12-C28	1050	30.1	"	1200	12.9	86.4	75-125			
Surrogate: 1-Chlorooctane	*115*		*"*	*120*		*95.2*	*70-130*			
Surrogate: o-Terphenyl	*56.1*		*"*	*60.2*		*93.1*	*70-130*			
Matrix Spike Dup (P2C3002-MSD1)		**Source: 2C28001-10**		Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	1100	30.1	mg/kg dry	1200	15.5	90.0	75-125	3.62	20	
>C12-C28	1110	30.1	"	1200	12.9	90.9	75-125	5.03	20	
Surrogate: 1-Chlorooctane	*130*		*"*	*120*		*108*	*70-130*			
Surrogate: o-Terphenyl	*55.3*		*"*	*60.2*		*91.8*	*70-130*			
Batch P2C3004 - * DEFAULT PREP *** **										
Blank (P2C3004-BLK1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*82.1*		*"*	*100*		*82.1*	*70-130*			
Surrogate: o-Terphenyl	*44.6*		*"*	*50.0*		*89.2*	*70-130*			
LCS (P2C3004-BS1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	965	25.0	mg/kg wet	1000		96.5	75-125			
>C12-C28	1000	25.0	"	1000		100	75-125			
Surrogate: 1-Chlorooctane	*126*		*"*	*100*		*126*	*70-130*			
Surrogate: o-Terphenyl	*52.1*		*"*	*50.0*		*104*	*70-130*			

DRAFT REPORT

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.

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3004 - * DEFAULT PREP *** **										
LCS Dup (P2C3004-BSD1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	996	25.0	mg/kg wet	1000		99.6	75-125	3.19	20	
>C12-C28	1030	25.0	"	1000		103	75-125	2.69	20	
Surrogate: 1-Chlorooctane	*119*		*"*	*100*		*119*	*70-130*			
Surrogate: o-Terphenyl	*49.0*		*"*	*50.0*		*98.1*	*70-130*			
Calibration Check (P2C3004-CCV1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	519	25.0	mg/kg wet	500		104	85-115			
>C12-C28	492	25.0	"	500		98.5	85-115			
Surrogate: 1-Chlorooctane	*101*		*"*	*100*		*101*	*70-130*			
Surrogate: o-Terphenyl	*45.6*		*"*	*50.0*		*91.2*	*70-130*			
Calibration Check (P2C3004-CCV2)				Prepared: 03/30/22 Analyzed: 04/01/22						
C6-C12	538	25.0	mg/kg wet	500		108	85-115			
>C12-C28	516	25.0	"	500		103	85-115			
Surrogate: 1-Chlorooctane	*104*		*"*	*100*		*104*	*70-130*			
Surrogate: o-Terphenyl	*47.4*		*"*	*50.0*		*94.7*	*70-130*			
Calibration Check (P2C3004-CCV3)				Prepared: 03/30/22 Analyzed: 04/01/22						
C6-C12	537	25.0	mg/kg wet	500		107	85-115			
>C12-C28	509	25.0	"	500		102	85-115			
Surrogate: 1-Chlorooctane	*105*		*"*	*100*		*105*	*70-130*			
Surrogate: o-Terphenyl	*47.7*		*"*	*50.0*		*95.4*	*70-130*			
Matrix Spike (P2C3004-MS1)		**Source: 2C29005-08**		Prepared: 03/30/22 Analyzed: 04/01/22						
C6-C12	1070	25.3	mg/kg dry	1010	292	77.0	75-125			
>C12-C28	2320	25.3	"	1010	2660	NR	75-125			QM-05
Surrogate: 1-Chlorooctane	*117*		*"*	*101*		*116*	*70-130*			
Surrogate: o-Terphenyl	*60.4*		*"*	*50.5*		*120*	*70-130*			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3004 - * DEFAULT PREP *** **										
Matrix Spike Dup (P2C3004-MSD1)	**Source: 2C29005-08**			Prepared: 03/30/22 Analyzed: 04/01/22						
C6-C12	1070	25.3	mg/kg dry	1010	292	76.7	75-125	0.444	20	
>C12-C28	2260	25.3	"	1010	2660	NR	75-125	NR	20	QM-05
Surrogate: 1-Chlorooctane	*112*		*"*	*101*		*111*	*70-130*			
Surrogate: o-Terphenyl	*60.2*		*"*	*50.5*		*119*	*70-130*			

DRAFT REPORT

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.

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

Notes and Definitions

ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
NPBEL C(	Chain of Custody was not generated at PBELAB
BULK	Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 4/4/2022

Brent Barron, Laboratory Director/Technical Director

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

Nº 1890

CHAIN-OF-CUSTOD

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

DATE: 3/28/2022 PAGE 1 OF 1

PO#: LAB WORK ORDER#: 2C28001

PROJECT LOCATION OR NAME: Sheen 23 CTB

LAI PROJECT #: 20-0107-09 COLLECTOR: JR

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST/NM

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

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

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	BTEX ☐ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
C-~~1~~ 1	1	3/22/22	9:00	S	1				X		X		X	X	X													X		
C-2	2	"	9:02	"	"				"		"		"	"	"													"		
C-3	3	"	9:04	"	"				"		"		"	"	"													"		
C-4	4	"	9:06	"	"				"		"		"	"	"													"		
C-5	5	"	9:08	"	"				"		"		"	"	"													"		
C-6	6	"	9:10	"	"				"		"		"	"	"													"		
C-7	7	"	9:12	"	"				"		"		"	"	"													"		
C-8	8	"	12:00	"	"				"		"		"	"	"													"		
C-9	9	"	12:10	"	"				"		"		"	"	"													"		
C-10	10	"	12:20	"	"				"		"		"	"	"													"		
C-11	11	"	12:30	"	"				"		"		"	"	"													"		
TOTAL																														

RELINQUISHED BY:(Signature) DATE/TIME 3/28/22 10:12 RECEIVED BY: (Signature)

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

RELINQUISHED BY:(Signature) DATE/TIME 3/28/22 10:12 RECEIVED BY: (Signature) Mn Haddock

LABORATORY: PBEL

TURN AROUND TIME

NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:

RECEIVING TEMP: 0.1 +1.1 THERM#: 4

CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED

☐ CARRIER BILL #

☐ HAND DELIVERED

PBELAB

DOC #: PBEL_SAMPLE_CHECKLIST
REVISION #: PBEL_2021_1
REVISION Date: 10/30/2021
EFFECTIVE DATE: 10/30/2021

Sample Receipt Checklist

Yes		Notes
✓	Chain of custody present?	
	Chain of custody signed/dated/time when relinquished and received?	
	Sample date/time present on COC for all samples?	
	Samplers name present on COC?	
	Chain of Custody agrees with sample labels?	
	Sample containers intact?	
X	Custody seals intact on sample bottles?	
✓	Samples in proper container/bottle?	
	Sufficient sample volume for indicated test?	
	All samples received within holding time?	
	Samples received within appropriate temp?	1.1
	Analysis requested for all samples submitted?	
	Shipping container/cooler in good condition?	
	Custody seals intact on shipping container/cooler?	

Login Notes:
407 2C29001

PBELAB

DOC #: PBEL_SAMPLE_CHECKLIST
REVISION #: PBEL_2021_1
REVISION Date: 10/30/2021
EFFECTIVE DATE: 10/30/2021

SAMPLE VARIANCE/NON-CONFORMANCE

Variance/Discrepancy:

Resolution:

Client Contacted

Name:

Date/Time:

NC Initiated by:_____ Approved by:_____

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

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Sheen 23 CTB

Project Number: 20-0107-09

Location: New Mexico

Lab Order Number: 2C28007

NELAP ACCREDITED TNI LABORATORY

Current Certification

Report Date: 04/04/22

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Backfill	2C28007-01	Soil	03/23/22 15:30	03-28-2022 14:02

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

Backfill

2C28007-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00108	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 01:11	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 01:11	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 01:11	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 01:11	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P2C2912	03/29/22 15:58	03/30/22 01:11	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*106 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/30/22 01:11*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*102 %*	*80-120*		*P2C2912*	*03/29/22 15:58*	*03/30/22 01:11*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**4.19**	1.08	mg/kg dry	1	P2C3005	03/30/22 10:33	03/31/22 09:31	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P2C3006	03/30/22 11:34	03/30/22 11:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P2C3004	03/30/22 11:00	04/01/22 08:57	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P2C3004	03/30/22 11:00	04/01/22 08:57	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P2C3004	03/30/22 11:00	04/01/22 08:57	TPH 8015M	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		*P2C3004*	*03/30/22 11:00*	*04/01/22 08:57*	*TPH 8015M*	
Surrogate: o-Terphenyl		*97.0 %*	*70-130*		*P2C3004*	*03/30/22 11:00*	*04/01/22 08:57*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	03/30/22 11:00	04/01/22 08:57	calc	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C2912 - General Preparation (GC)										
Blank (P2C2912-BLK1)				Prepared & Analyzed: 03/29/22						
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	*0.126*		"	*0.120*		*105*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.122*		"	*0.120*		*102*	*80-120*			
LCS (P2C2912-BS1)				Prepared & Analyzed: 03/29/22						
Benzene	0.104	0.00100	mg/kg wet	0.100		104	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.116	0.00100	"	0.100		116	80-120			
Xylene (p/m)	0.231	0.00200	"	0.200		116	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 1,4-Difluorobenzene	*0.123*		"	*0.120*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.130*		"	*0.120*		*109*	*80-120*			
LCS Dup (P2C2912-BSD1)				Prepared & Analyzed: 03/29/22						
Benzene	0.112	0.00100	mg/kg wet	0.100		112	80-120	7.88	20	
Toluene	0.112	0.00100	"	0.100		112	80-120	7.50	20	
Ethylbenzene	0.116	0.00100	"	0.100		116	80-120	0.362	20	
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120	2.75	20	
Xylene (o)	0.115	0.00100	"	0.100		115	80-120	7.27	20	
Surrogate: 1,4-Difluorobenzene	*0.122*		"	*0.120*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.129*		"	*0.120*		*107*	*80-120*			
Calibration Blank (P2C2912-CCB1)				Prepared & Analyzed: 03/29/22						
Benzene	0.00		mg/kg wet							
Toluene	0.210		"							
Ethylbenzene	0.150		"							
Xylene (p/m)	0.220		"							
Xylene (o)	0.140		"							
Surrogate: 4-Bromofluorobenzene	*0.123*		"	*0.120*		*102*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.121*		"	*0.120*		*101*	*80-120*			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C2912 - General Preparation (GC)										
Calibration Blank (P2C2912-CCB2)				Prepared & Analyzed: 03/29/22						
Benzene	0.120		mg/kg wet							
Toluene	0.160		"							
Ethylbenzene	0.140		"							
Xylene (p/m)	0.310		"							
Xylene (o)	0.210		"							
Surrogate: 4-Bromofluorobenzene	*0.119*		*"*	*0.120*		*98.9*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.119*		*"*	*0.120*		*99.1*	*80-120*			
Calibration Check (P2C2912-CCV1)				Prepared & Analyzed: 03/29/22						
Benzene	0.0966	0.00100	mg/kg wet	0.100		96.6	80-120			
Toluene	0.100	0.00100	"	0.100		100	80-120			
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120			
Xylene (p/m)	0.224	0.00200	"	0.200		112	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 4-Bromofluorobenzene	*0.127*		*"*	*0.120*		*106*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.123*		*"*	*0.120*		*102*	*75-125*			
Calibration Check (P2C2912-CCV2)				Prepared & Analyzed: 03/29/22						
Benzene	0.110	0.00100	mg/kg wet	0.100		110	80-120			
Toluene	0.112	0.00100	"	0.100		112	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.237	0.00200	"	0.200		118	80-120			
Xylene (o)	0.119	0.00100	"	0.100		119	80-120			
Surrogate: 1,4-Difluorobenzene	*0.122*		*"*	*0.120*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.127*		*"*	*0.120*		*106*	*75-125*			
Calibration Check (P2C2912-CCV3)				Prepared: 03/29/22 Analyzed: 03/30/22						
Benzene	0.114	0.00100	mg/kg wet	0.100		114	80-120			
Toluene	0.116	0.00100	"	0.100		116	80-120			
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120			
Xylene (p/m)	0.234	0.00200	"	0.200		117	80-120			
Xylene (o)	0.118	0.00100	"	0.100		118	80-120			
Surrogate: 1,4-Difluorobenzene	*0.123*		*"*	*0.120*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.128*		*"*	*0.120*		*107*	*75-125*			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C2912 - General Preparation (GC)										
Matrix Spike (P2C2912-MS1)		**Source: 2C29006-01**		Prepared: 03/29/22 Analyzed: 03/30/22						
Benzene	0.0683	0.00103	mg/kg dry	0.103	0.00106	65.2	80-120			QM-05
Toluene	0.0535	0.00103	"	0.103	0.00335	48.6	80-120			QM-05
Ethylbenzene	0.0462	0.00103	"	0.103	0.0120	33.2	80-120			QM-05
Xylene (p/m)	0.0961	0.00206	"	0.206	0.0366	28.8	80-120			QM-05
Xylene (o)	0.0348	0.00103	"	0.103	0.00726	26.8	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*0.133*		*"*	*0.124*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.123*		*"*	*0.124*		*99.2*	*80-120*			
Matrix Spike Dup (P2C2912-MSD1)		**Source: 2C29006-01**		Prepared: 03/29/22 Analyzed: 03/30/22						
Benzene	0.0641	0.00103	mg/kg dry	0.103	0.00106	61.2	80-120	6.39	20	QM-05
Toluene	0.0482	0.00103	"	0.103	0.00335	43.5	80-120	11.0	20	QM-05
Ethylbenzene	0.0414	0.00103	"	0.103	0.0120	28.6	80-120	14.8	20	QM-05
Xylene (p/m)	0.0862	0.00206	"	0.206	0.0366	24.0	80-120	18.2	20	QM-05
Xylene (o)	0.0313	0.00103	"	0.103	0.00726	23.3	80-120	13.8	20	QM-05
Surrogate: 1,4-Difluorobenzene	*0.136*		*"*	*0.124*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.120*		*"*	*0.124*		*97.1*	*80-120*			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3005 - * DEFAULT PREP *** **										
Blank (P2C3005-BLK1)				Prepared & Analyzed: 03/30/22						
Chloride	ND	1.00	mg/kg wet							
LCS (P2C3005-BS1)				Prepared & Analyzed: 03/30/22						
Chloride	42.0		mg/kg	40.0		105	90-110			
LCS Dup (P2C3005-BSD1)				Prepared & Analyzed: 03/30/22						
Chloride	42.7		mg/kg	40.0		107	90-110	1.67	10	
Calibration Blank (P2C3005-CCB1)				Prepared & Analyzed: 03/30/22						
Chloride	0.00		mg/kg wet							
Calibration Blank (P2C3005-CCB2)				Prepared: 03/30/22 Analyzed: 03/31/22						
Chloride	0.114		mg/kg wet							
Calibration Check (P2C3005-CCV1)				Prepared & Analyzed: 03/30/22						
Chloride	21.5		mg/kg	20.0		108	90-110			
Calibration Check (P2C3005-CCV2)				Prepared: 03/30/22 Analyzed: 03/31/22						
Chloride	20.8		mg/kg	20.0		104	90-110			
Calibration Check (P2C3005-CCV3)				Prepared: 03/30/22 Analyzed: 03/31/22						
Chloride	21.3		mg/kg	20.0		107	90-110			
Matrix Spike (P2C3005-MS1)		**Source: 2C25021-01**		Prepared & Analyzed: 03/30/22						
Chloride	666	1.10	mg/kg dry	275	477	68.9	80-120			QM-05
Matrix Spike (P2C3005-MS2)		**Source: 2C28001-07**		Prepared: 03/30/22 Analyzed: 03/31/22						
Chloride	2120	31.2	mg/kg dry	1560	567	99.2	80-120			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3005 - * DEFAULT PREP *** **										
Matrix Spike Dup (P2C3005-MSD1)	**Source: 2C25021-01**			Prepared & Analyzed: 03/30/22						
Chloride	733	1.10	mg/kg dry	275	477	93.5	80-120	9.65	20	
Matrix Spike Dup (P2C3005-MSD2)	**Source: 2C28001-07**			Prepared: 03/30/22 Analyzed: 03/31/22						
Chloride	2260	31.2	mg/kg dry	1560	567	108	80-120	6.46	20	
Batch P2C3006 - * DEFAULT PREP *** **										
Blank (P2C3006-BLK1)				Prepared & Analyzed: 03/30/22						
% Moisture	ND	0.1	%							
Blank (P2C3006-BLK2)				Prepared & Analyzed: 03/30/22						
% Moisture	ND	0.1	%							
Blank (P2C3006-BLK3)				Prepared & Analyzed: 03/30/22						
% Moisture	ND	0.1	%							
Blank (P2C3006-BLK4)				Prepared & Analyzed: 03/30/22						
% Moisture	ND	0.1	%							
Duplicate (P2C3006-DUP1)	**Source: 2C25009-37**			Prepared & Analyzed: 03/30/22						
% Moisture	10.0	0.1	%		9.0			10.5	20	
Duplicate (P2C3006-DUP2)	**Source: 2C25011-05**			Prepared & Analyzed: 03/30/22						
% Moisture	8.0	0.1	%		7.0			13.3	20	
Duplicate (P2C3006-DUP3)	**Source: 2C25012-06**			Prepared & Analyzed: 03/30/22						
% Moisture	4.0	0.1	%		4.0			0.00	20	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3006 - * DEFAULT PREP *** **										
Duplicate (P2C3006-DUP4)		**Source: 2C25017-05**		Prepared & Analyzed: 03/30/22						
% Moisture	12.0	0.1	%		11.0			8.70	20	
Duplicate (P2C3006-DUP5)		**Source: 2C28001-05**		Prepared & Analyzed: 03/30/22						
% Moisture	17.0	0.1	%		16.0			6.06	20	
Duplicate (P2C3006-DUP6)		**Source: 2C28009-02**		Prepared & Analyzed: 03/30/22						
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P2C3006-DUP7)		**Source: 2C29004-04**		Prepared & Analyzed: 03/30/22						
% Moisture	2.0	0.1	%		2.0			0.00	20	
Duplicate (P2C3006-DUP8)		**Source: 2C29008-01**		Prepared & Analyzed: 03/30/22						
% Moisture	ND	0.1	%		1.0			200	20	

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3004 - * DEFAULT PREP *** **										
Blank (P2C3004-BLK1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*82.1*		"	*100*		*82.1*	*70-130*			
Surrogate: o-Terphenyl	*44.6*		"	*50.0*		*89.2*	*70-130*			
LCS (P2C3004-BS1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	965	25.0	mg/kg wet	1000		96.5	75-125			
>C12-C28	1000	25.0	"	1000		100	75-125			
Surrogate: 1-Chlorooctane	*126*		"	*100*		*126*	*70-130*			
Surrogate: o-Terphenyl	*52.1*		"	*50.0*		*104*	*70-130*			
LCS Dup (P2C3004-BSD1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	996	25.0	mg/kg wet	1000		99.6	75-125	3.19	20	
>C12-C28	1030	25.0	"	1000		103	75-125	2.69	20	
Surrogate: 1-Chlorooctane	*119*		"	*100*		*119*	*70-130*			
Surrogate: o-Terphenyl	*49.0*		"	*50.0*		*98.1*	*70-130*			
Calibration Check (P2C3004-CCV1)				Prepared: 03/30/22 Analyzed: 03/31/22						
C6-C12	519	25.0	mg/kg wet	500		104	85-115			
>C12-C28	492	25.0	"	500		98.5	85-115			
Surrogate: 1-Chlorooctane	*101*		"	*100*		*101*	*70-130*			
Surrogate: o-Terphenyl	*45.6*		"	*50.0*		*91.2*	*70-130*			
Calibration Check (P2C3004-CCV2)				Prepared: 03/30/22 Analyzed: 04/01/22						
C6-C12	538	25.0	mg/kg wet	500		108	85-115			
>C12-C28	516	25.0	"	500		103	85-115			
Surrogate: 1-Chlorooctane	*104*		"	*100*		*104*	*70-130*			
Surrogate: o-Terphenyl	*47.4*		"	*50.0*		*94.7*	*70-130*			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2C3004 - * DEFAULT PREP *** **										
Calibration Check (P2C3004-CCV3)				Prepared: 03/30/22 Analyzed: 04/01/22						
C6-C12	537	25.0	mg/kg wet	500		107	85-115			
>C12-C28	509	25.0	"	500		102	85-115			
Surrogate: 1-Chlorooctane	*105*		*"*	*100*		*105*	*70-130*			
Surrogate: o-Terphenyl	*47.7*		*"*	*50.0*		*95.4*	*70-130*			
Matrix Spike (P2C3004-MS1)		**Source: 2C29005-08**		Prepared: 03/30/22 Analyzed: 04/01/22						
C6-C12	1070	25.3	mg/kg dry	1010	292	77.0	75-125			
>C12-C28	2320	25.3	"	1010	2660	NR	75-125			QM-05
Surrogate: 1-Chlorooctane	*117*		*"*	*101*		*116*	*70-130*			
Surrogate: o-Terphenyl	*60.4*		*"*	*50.5*		*120*	*70-130*			
Matrix Spike Dup (P2C3004-MSD1)		**Source: 2C29005-08**		Prepared: 03/30/22 Analyzed: 04/01/22						
C6-C12	1070	25.3	mg/kg dry	1010	292	76.7	75-125	0.444	20	
>C12-C28	2260	25.3	"	1010	2660	NR	75-125	NR	20	QM-05
Surrogate: 1-Chlorooctane	*112*		*"*	*101*		*111*	*70-130*			
Surrogate: o-Terphenyl	*60.2*		*"*	*50.5*		*119*	*70-130*			

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

Notes and Definitions

ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
NPBEL C(	Chain of Custody was not generated at PBELAB
BULK	Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 4/4/2022

Brent Barron, Laboratory Director/Technical Director

Larson & Associates, Inc.	Project: Sheen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

Nº 1891

CHAIN-OF-CUSTOD

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

Data Reported to:

DATE: 3/28/22 PAGE 1 OF 1

PO#: LAB WORK ORDER#: 2C28007

PROJECT LOCATION OR NAME: Skeen 23 CTB

LAI PROJECT #: 20-0107-09 COLLECTOR: JR

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST / NM

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐	HOLDPAH ☐	8081 PESTICIDES ☐	8082 PCBS ☐	8151 HERBICIDES ☐	TCLP - METALS (RCRA) ☐	TCLP VOC ☐	TCLP - PEST ☐	HERB ☐	Semi-VOC ☐	TOTAL METALS (RCRA) ☐	OTHER LIST ☐	LEAD - TOTAL ☐	D.W. 200.8 ☐	TCLP ☐	RCI ☐	TOX ☐	FLASHPOINT ☐	TDS ☐	TSS ☐	% MOISTURE ☐	pH ☐	HEXAVALENT CHROMIUM ☐	CYANIDE ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDES ☐	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
Backfill	1	3/23/22	1530	S	1				X		X		X	X	X	X																													
TOTAL																																													

RELINQUISHED BY:(Signature) DATE/TIME 3/28/22 14:02 RECEIVED BY:(Signature)

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

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

LABORATORY: PBEL

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

LABORATORY USE ONLY:
RECEIVING TEMP: 2.6 3.6 THERM#: CF1 LI
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

PBELAB

DOC #: PBEL_SAMPLE_CHECKLIST
REVISION #: PBEL_2021_1
REVISION Date: 10/30/2021
EFFECTIVE DATE: 10/30/2021

Sample Receipt Checklist

Yes		Notes
✓	Chain of custody present?	
	Chain of custody signed/dated/time when relinquished and received?	
	Sample date/time present on COC for all samples?	
	Samplers name present on COC?	
	Chain of Custody agrees with sample labels?	
	Sample containers intact?	
X	Custody seals intact on sample bottles?	
✓	Samples in proper container/bottle?	
	Sufficient sample volume for indicated test?	
	All samples received within holding time?	
	Samples received within appropriate temp?	3.6
	Analysis requested for all samples submitted?	
	Shipping container/cooler in good condition?	
	Custody seals intact on shipping container/cooler?	

Login Notes:
402 2C28007

PBELAB

DOC #: PBEL_SAMPLE_CHECKLIST
REVISION #: PBEL_2021_1
REVISION Date: 10/30/2021
EFFECTIVE DATE: 10/30/2021

SAMPLE VARIANCE/NON-CONFORMANCE

Variance/Discrepancy:

Resolution:

Client Contacted

Name:

Date/Time:

NC Initiated by:_____ Approved by:_____

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-15064-1
Laboratory Sample Delivery Group: 20-0107-09
Client Project/Site: Skeen 23 CTB

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

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
5/31/2022 3:34:07 PM

Holly Taylor, Project Manager
(806)794-1296
Holly.Taylor@et.eurofinsus.com

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Laboratory Job ID: 880-15064-1
SDG: 20-0107-09

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-15064-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Job ID: 880-15064-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-15064-1

Comments
No additional comments.

Receipt
The samples were received on 5/23/2022 3:13 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 1.7º 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 sample was outside control limits: (LCS 880-26124/2-A). Evidence of matrix interferences is not obvious.

Method 8015B NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-26124 and analytical batch 880-26134 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28). The MS/MSD RPD passed within limits and therefore shows recovery for the batch.

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: C-12 (880-15064-8). 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.

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

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

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Client Sample ID: C-2

Date Collected: 05/20/22 11:30
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 18:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 18:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 18:43	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/24/22 13:19	05/24/22 18:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 18:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/24/22 13:19	05/24/22 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*05/24/22 13:19*	*05/24/22 18:43*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*05/24/22 13:19*	*05/24/22 18:43*	*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			05/25/22 09:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**100**		50.0		mg/Kg			05/24/22 15:43	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	**100**	***1**	50.0		mg/Kg		05/24/22 08:22	05/24/22 14:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 14:34	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*104*		*70 - 130*	*05/24/22 08:22*	*05/24/22 14:34*	*1*
o-Terphenyl (Surr)	*97*		*70 - 130*	*05/24/22 08:22*	*05/24/22 14:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**219**		4.99		mg/Kg			05/30/22 13:08	1

Client Sample ID: C-3

Date Collected: 05/20/22 11:32
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 19:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 19:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 19:03	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/24/22 13:19	05/24/22 19:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 19:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/24/22 13:19	05/24/22 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*05/24/22 13:19*	*05/24/22 19:03*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*05/24/22 13:19*	*05/24/22 19:03*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Client Sample ID: C-3

Date Collected: 05/20/22 11:32
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-2

Matrix: Solid

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			05/25/22 09:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/24/22 15:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 14:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 14:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*104*		*70 - 130*	*05/24/22 08:22*	*05/24/22 14:56*	*1*
o-Terphenyl (Surr)	*98*		*70 - 130*	*05/24/22 08:22*	*05/24/22 14:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**165**		4.95		mg/Kg			05/30/22 13:18	1

Client Sample ID: C-4

Date Collected: 05/19/22 12:20
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 19:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 19:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 19:23	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		05/24/22 13:19	05/24/22 19:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 19:23	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/24/22 13:19	05/24/22 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*05/24/22 13:19*	*05/24/22 19:23*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/24/22 13:19*	*05/24/22 19:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/25/22 09:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/24/22 15:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 15:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 15:18	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-15064-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

Client Sample ID: C-4 Lab Sample ID: 880-15064-3
Date Collected: 05/19/22 12:20 **Matrix: Solid**
Date Received: 05/23/22 15:13

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*110*		*70 - 130*	*05/24/22 08:22*	*05/24/22 15:18*	*1*
o-Terphenyl (Surr)	*104*		*70 - 130*	*05/24/22 08:22*	*05/24/22 15:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**270**		5.01		mg/Kg			05/30/22 13:27	1

Client Sample ID: C-5 Lab Sample ID: 880-15064-4
Date Collected: 05/19/22 12:31 **Matrix: Solid**
Date Received: 05/23/22 15:13

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 19:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 19:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 19:44	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/24/22 13:19	05/24/22 19:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/24/22 13:19	05/24/22 19:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/24/22 13:19	05/24/22 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*05/24/22 13:19*	*05/24/22 19:44*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/24/22 13:19*	*05/24/22 19:44*	*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			05/25/22 09:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/24/22 15:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 16:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 16:01	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*108*		*70 - 130*	*05/24/22 08:22*	*05/24/22 16:01*	*1*
o-Terphenyl (Surr)	*102*		*70 - 130*	*05/24/22 08:22*	*05/24/22 16:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**337**		4.98		mg/Kg			05/30/22 13:36	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Client Sample ID: C-9

Date Collected: 05/20/22 09:45
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 20:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 20:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 20:04	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		05/24/22 13:19	05/24/22 20:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 20:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/24/22 13:19	05/24/22 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*05/24/22 13:19*	*05/24/22 20:04*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*05/24/22 13:19*	*05/24/22 20:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/25/22 09:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/24/22 15:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		05/24/22 08:22	05/24/22 16:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		05/24/22 08:22	05/24/22 16:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/22 08:22	05/24/22 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*103*		*70 - 130*	*05/24/22 08:22*	*05/24/22 16:23*	*1*
o-Terphenyl (Surr)	*97*		*70 - 130*	*05/24/22 08:22*	*05/24/22 16:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**352**		4.98		mg/Kg			05/30/22 13:45	1

Client Sample ID: C-11a

Date Collected: 05/20/22 09:47
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-6

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 20:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 20:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 20:25	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		05/24/22 13:19	05/24/22 20:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 20:25	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/24/22 13:19	05/24/22 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*05/24/22 13:19*	*05/24/22 20:25*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*05/24/22 13:19*	*05/24/22 20:25*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-15064-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

Client Sample ID: C-11a
Lab Sample ID: 880-15064-6
Date Collected: 05/20/22 09:47 **Matrix: Solid**
Date Received: 05/23/22 15:13

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			05/25/22 09:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/24/22 15:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 16:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 16:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 16:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*104*		*70 - 130*	*05/24/22 08:22*	*05/24/22 16:45*	*1*
o-Terphenyl (Surr)	*98*		*70 - 130*	*05/24/22 08:22*	*05/24/22 16:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	343		5.02		mg/Kg			05/30/22 13:55	1

Client Sample ID: C-11b
Lab Sample ID: 880-15064-7
Date Collected: 05/20/22 12:47 **Matrix: Solid**
Date Received: 05/23/22 15:13

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/24/22 13:19	05/24/22 20:45	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/24/22 13:19	05/24/22 20:45	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/24/22 13:19	05/24/22 20:45	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		05/24/22 13:19	05/24/22 20:45	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/24/22 13:19	05/24/22 20:45	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/24/22 13:19	05/24/22 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*05/24/22 13:19*	*05/24/22 20:45*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/24/22 13:19*	*05/24/22 20:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/25/22 09:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/24/22 15:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		05/24/22 08:22	05/24/22 17:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		05/24/22 08:22	05/24/22 17:07	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Client Sample ID: C-11b

Date Collected: 05/20/22 12:47
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-7

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/22 08:22	05/24/22 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*101*		*70 - 130*	*05/24/22 08:22*	*05/24/22 17:07*	*1*
o-Terphenyl (Surr)	*94*		*70 - 130*	*05/24/22 08:22*	*05/24/22 17:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**589**		49.9		mg/Kg			05/27/22 20:53	10

Client Sample ID: C-12

Date Collected: 05/20/22 12:45
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-8

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/24/22 13:19	05/24/22 21:05	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/24/22 13:19	05/24/22 21:05	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/24/22 13:19	05/24/22 21:05	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		05/24/22 13:19	05/24/22 21:05	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/24/22 13:19	05/24/22 21:05	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/24/22 13:19	05/24/22 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*05/24/22 13:19*	*05/24/22 21:05*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/24/22 13:19*	*05/24/22 21:05*	*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			05/25/22 09:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/24/22 15:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 17:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		05/24/22 08:22	05/24/22 17:29	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 17:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*132*	*S1+*	*70 - 130*	*05/24/22 08:22*	*05/24/22 17:29*	*1*
o-Terphenyl (Surr)	*119*		*70 - 130*	*05/24/22 08:22*	*05/24/22 17:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**508**		50.3		mg/Kg			05/27/22 21:02	10

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-15064-1	C-2	113	88
880-15064-2	C-3	109	99
880-15064-3	C-4	101	93
880-15064-4	C-5	94	87
880-15064-5	C-9	105	94
880-15064-6	C-11a	107	94
880-15064-7	C-11b	112	95
880-15064-8	C-12	105	96
880-15067-A-21-E MS	Matrix Spike	111	97
880-15067-A-21-F MSD	Matrix Spike Duplicate	107	99
LCS 880-26100/1-A	Lab Control Sample	107	93
LCSD 880-26100/2-A	Lab Control Sample Dup	102	98
MB 880-26100/5-A	Method Blank	98	96

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-15064-1	C-2	104	97
880-15064-2	C-3	104	98
880-15064-3	C-4	110	104
880-15064-4	C-5	108	102
880-15064-5	C-9	103	97
880-15064-6	C-11a	104	98
880-15064-7	C-11b	101	94
880-15064-8	C-12	132 S1+	119
880-15067-A-21-C MS	Matrix Spike	88	75
880-15067-A-21-D MSD	Matrix Spike Duplicate	100	85
LCS 880-26124/2-A	Lab Control Sample	147 S1+	127
LCSD 880-26124/3-A	Lab Control Sample Dup	115	102
MB 880-26124/1-A	Method Blank	122	119

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26100/5-A
Matrix: Solid
Analysis Batch: 26075

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26100

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 13:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 13:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 13:19	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		05/24/22 13:19	05/24/22 13:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/22 13:19	05/24/22 13:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/24/22 13:19	05/24/22 13:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*05/24/22 13:19*	*05/24/22 13:19*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/24/22 13:19*	*05/24/22 13:19*	*1*

Lab Sample ID: LCS 880-26100/1-A
Matrix: Solid
Analysis Batch: 26075

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26100

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08691		mg/Kg		87	70 - 130		
Toluene			0.100	0.09722		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.1147		mg/Kg		115	70 - 130		
m,p-Xylenes			0.200	0.2062		mg/Kg		103	70 - 130		
o-Xylene			0.100	0.09905		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 880-26100/2-A
Matrix: Solid
Analysis Batch: 26075

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26100

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08103		mg/Kg		81	70 - 130	7	35
Toluene			0.100	0.08815		mg/Kg		88	70 - 130	10	35
Ethylbenzene			0.100	0.1036		mg/Kg		104	70 - 130	10	35
m,p-Xylenes			0.200	0.1866		mg/Kg		93	70 - 130	10	35
o-Xylene			0.100	0.08943		mg/Kg		89	70 - 130	10	35

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

Lab Sample ID: 880-15067-A-21-E MS
Matrix: Solid
Analysis Batch: 26075

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 26100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.100	0.07472		mg/Kg		75	70 - 130		
Toluene	0.00258		0.100	0.08693		mg/Kg		84	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

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

Lab Sample ID: 880-15067-A-21-E MS
Matrix: Solid
Analysis Batch: 26075

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 26100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1024		mg/Kg		101	70 - 130
m,p-Xylenes	<0.00401	U	0.200	0.1854		mg/Kg		91	70 - 130
o-Xylene	<0.00200	U	0.100	0.08826		mg/Kg		87	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-15067-A-21-F MSD
Matrix: Solid
Analysis Batch: 26075

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 26100

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.07275		mg/Kg		73	70 - 130	3	35
Toluene	0.00258		0.0996	0.07827		mg/Kg		76	70 - 130	10	35
Ethylbenzene	<0.00200	U	0.0996	0.09175		mg/Kg		91	70 - 130	11	35
m,p-Xylenes	<0.00401	U	0.199	0.1651		mg/Kg		81	70 - 130	12	35
o-Xylene	<0.00200	U	0.0996	0.07970		mg/Kg		79	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: MB 880-26124/1-A
Matrix: Solid
Analysis Batch: 26134

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26124

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 10:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 10:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 10:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*122*		*70 - 130*	*05/24/22 08:22*	*05/24/22 10:11*	*1*
o-Terphenyl (Surr)	*119*		*70 - 130*	*05/24/22 08:22*	*05/24/22 10:11*	*1*

Lab Sample ID: LCS 880-26124/2-A
Matrix: Solid
Analysis Batch: 26134

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26124

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1118		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)			1000	972.6		mg/Kg		97	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

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

Lab Sample ID: LCS 880-26124/2-A
Matrix: Solid
Analysis Batch: 26134

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	147	S1+	70 - 130
o-Terphenyl (Surr)	127		70 - 130

Lab Sample ID: LCSD 880-26124/3-A
Matrix: Solid
Analysis Batch: 26134

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26124

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	814.5	*1	mg/Kg		81	70 - 130	31	20
Diesel Range Organics (Over C10-C28)			1000	776.9	*1	mg/Kg		78	70 - 130	22	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	115		70 - 130
o-Terphenyl (Surr)	102		70 - 130

Lab Sample ID: 880-15067-A-21-C MS
Matrix: Solid
Analysis Batch: 26134

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 26124

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	55.3	*1	1000	778.9		mg/Kg		72	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *1	1000	799.3		mg/Kg		78	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	88		70 - 130
o-Terphenyl (Surr)	75		70 - 130

Lab Sample ID: 880-15067-A-21-D MSD
Matrix: Solid
Analysis Batch: 26134

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 26124

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	55.3	*1	999	925.3		mg/Kg		87	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<50.0	U *1	999	906.2		mg/Kg		89	70 - 130	13	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	100		70 - 130
o-Terphenyl (Surr)	85		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26113/1-A
Matrix: Solid
Analysis Batch: 26375

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/27/22 16:18	1

Lab Sample ID: LCS 880-26113/2-A
Matrix: Solid
Analysis Batch: 26375

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	245.9		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-26113/3-A
Matrix: Solid
Analysis Batch: 26375

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	243.6		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 880-15063-A-11-B MS
Matrix: Solid
Analysis Batch: 26375

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	43.2		253	291.5		mg/Kg		98	90 - 110		

Lab Sample ID: 880-15063-A-11-C MSD
Matrix: Solid
Analysis Batch: 26375

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	43.2		253	291.9		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

GC VOA

Analysis Batch: 26075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15064-1	C-2	Total/NA	Solid	8021B	26100
880-15064-2	C-3	Total/NA	Solid	8021B	26100
880-15064-3	C-4	Total/NA	Solid	8021B	26100
880-15064-4	C-5	Total/NA	Solid	8021B	26100
880-15064-5	C-9	Total/NA	Solid	8021B	26100
880-15064-6	C-11a	Total/NA	Solid	8021B	26100
880-15064-7	C-11b	Total/NA	Solid	8021B	26100
880-15064-8	C-12	Total/NA	Solid	8021B	26100
MB 880-26100/5-A	Method Blank	Total/NA	Solid	8021B	26100
LCS 880-26100/1-A	Lab Control Sample	Total/NA	Solid	8021B	26100
LCSD 880-26100/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26100
880-15067-A-21-E MS	Matrix Spike	Total/NA	Solid	8021B	26100
880-15067-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	26100

Prep Batch: 26100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15064-1	C-2	Total/NA	Solid	5035	
880-15064-2	C-3	Total/NA	Solid	5035	
880-15064-3	C-4	Total/NA	Solid	5035	
880-15064-4	C-5	Total/NA	Solid	5035	
880-15064-5	C-9	Total/NA	Solid	5035	
880-15064-6	C-11a	Total/NA	Solid	5035	
880-15064-7	C-11b	Total/NA	Solid	5035	
880-15064-8	C-12	Total/NA	Solid	5035	
MB 880-26100/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26100/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26100/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-15067-A-21-E MS	Matrix Spike	Total/NA	Solid	5035	
880-15067-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 26248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15064-1	C-2	Total/NA	Solid	Total BTEX	
880-15064-2	C-3	Total/NA	Solid	Total BTEX	
880-15064-3	C-4	Total/NA	Solid	Total BTEX	
880-15064-4	C-5	Total/NA	Solid	Total BTEX	
880-15064-5	C-9	Total/NA	Solid	Total BTEX	
880-15064-6	C-11a	Total/NA	Solid	Total BTEX	
880-15064-7	C-11b	Total/NA	Solid	Total BTEX	
880-15064-8	C-12	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 26124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15064-1	C-2	Total/NA	Solid	8015NM Prep	
880-15064-2	C-3	Total/NA	Solid	8015NM Prep	
880-15064-3	C-4	Total/NA	Solid	8015NM Prep	
880-15064-4	C-5	Total/NA	Solid	8015NM Prep	
880-15064-5	C-9	Total/NA	Solid	8015NM Prep	
880-15064-6	C-11a	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

GC Semi VOA (Continued)

Prep Batch: 26124 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15064-7	C-11b	Total/NA	Solid	8015NM Prep	
880-15064-8	C-12	Total/NA	Solid	8015NM Prep	
MB 880-26124/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26124/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26124/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-15067-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-15067-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 26134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15064-1	C-2	Total/NA	Solid	8015B NM	26124
880-15064-2	C-3	Total/NA	Solid	8015B NM	26124
880-15064-3	C-4	Total/NA	Solid	8015B NM	26124
880-15064-4	C-5	Total/NA	Solid	8015B NM	26124
880-15064-5	C-9	Total/NA	Solid	8015B NM	26124
880-15064-6	C-11a	Total/NA	Solid	8015B NM	26124
880-15064-7	C-11b	Total/NA	Solid	8015B NM	26124
880-15064-8	C-12	Total/NA	Solid	8015B NM	26124
MB 880-26124/1-A	Method Blank	Total/NA	Solid	8015B NM	26124
LCS 880-26124/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26124
LCSD 880-26124/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26124
880-15067-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	26124
880-15067-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26124

Analysis Batch: 26195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15064-1	C-2	Total/NA	Solid	8015 NM	
880-15064-2	C-3	Total/NA	Solid	8015 NM	
880-15064-3	C-4	Total/NA	Solid	8015 NM	
880-15064-4	C-5	Total/NA	Solid	8015 NM	
880-15064-5	C-9	Total/NA	Solid	8015 NM	
880-15064-6	C-11a	Total/NA	Solid	8015 NM	
880-15064-7	C-11b	Total/NA	Solid	8015 NM	
880-15064-8	C-12	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 26113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15064-1	C-2	Soluble	Solid	DI Leach	
880-15064-2	C-3	Soluble	Solid	DI Leach	
880-15064-3	C-4	Soluble	Solid	DI Leach	
880-15064-4	C-5	Soluble	Solid	DI Leach	
880-15064-5	C-9	Soluble	Solid	DI Leach	
880-15064-6	C-11a	Soluble	Solid	DI Leach	
880-15064-7	C-11b	Soluble	Solid	DI Leach	
880-15064-8	C-12	Soluble	Solid	DI Leach	
MB 880-26113/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26113/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26113/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-15063-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

HPLC/IC (Continued)

Leach Batch: 26113 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15063-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 26375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15064-1	C-2	Soluble	Solid	300.0	26113
880-15064-2	C-3	Soluble	Solid	300.0	26113
880-15064-3	C-4	Soluble	Solid	300.0	26113
880-15064-4	C-5	Soluble	Solid	300.0	26113
880-15064-5	C-9	Soluble	Solid	300.0	26113
880-15064-6	C-11a	Soluble	Solid	300.0	26113
880-15064-7	C-11b	Soluble	Solid	300.0	26113
880-15064-8	C-12	Soluble	Solid	300.0	26113
MB 880-26113/1-A	Method Blank	Soluble	Solid	300.0	26113
LCS 880-26113/2-A	Lab Control Sample	Soluble	Solid	300.0	26113
LCSD 880-26113/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26113
880-15063-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	26113
880-15063-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	26113

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Client Sample ID: C-2
Date Collected: 05/20/22 11:30
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	26100	05/24/22 13:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26075	05/24/22 18:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26248	05/25/22 09:45	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26195	05/24/22 15:43	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	26124	05/24/22 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26134	05/24/22 14:34	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	26113	05/23/22 17:39	SC	XEN MID
Soluble	Analysis	300.0		1			26375	05/30/22 13:08	SC	XEN MID

Client Sample ID: C-3
Date Collected: 05/20/22 11:32
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	26100	05/24/22 13:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26075	05/24/22 19:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26248	05/25/22 09:45	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26195	05/24/22 15:43	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26124	05/24/22 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26134	05/24/22 14:56	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	26113	05/23/22 17:39	SC	XEN MID
Soluble	Analysis	300.0		1			26375	05/30/22 13:18	SC	XEN MID

Client Sample ID: C-4
Date Collected: 05/19/22 12:20
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	26100	05/24/22 13:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26075	05/24/22 19:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26248	05/25/22 09:45	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26195	05/24/22 15:43	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26124	05/24/22 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26134	05/24/22 15:18	SM	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	26113	05/23/22 17:39	SC	XEN MID
Soluble	Analysis	300.0		1			26375	05/30/22 13:27	SC	XEN MID

Client Sample ID: C-5
Date Collected: 05/19/22 12:31
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	26100	05/24/22 13:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26075	05/24/22 19:44	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26248	05/25/22 09:45	SM	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Client Sample ID: C-5
Date Collected: 05/19/22 12:31
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			26195	05/24/22 15:43	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	26124	05/24/22 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26134	05/24/22 16:01	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	26113	05/23/22 17:39	SC	XEN MID
Soluble	Analysis	300.0		1			26375	05/30/22 13:36	SC	XEN MID

Client Sample ID: C-9
Date Collected: 05/20/22 09:45
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	26100	05/24/22 13:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26075	05/24/22 20:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26248	05/25/22 09:45	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26195	05/24/22 15:43	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26124	05/24/22 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26134	05/24/22 16:23	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	26113	05/23/22 17:39	SC	XEN MID
Soluble	Analysis	300.0		1			26375	05/30/22 13:45	SC	XEN MID

Client Sample ID: C-11a
Date Collected: 05/20/22 09:47
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	26100	05/24/22 13:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26075	05/24/22 20:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26248	05/25/22 09:45	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26195	05/24/22 15:43	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26124	05/24/22 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26134	05/24/22 16:45	SM	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	26113	05/23/22 17:39	SC	XEN MID
Soluble	Analysis	300.0		1			26375	05/30/22 13:55	SC	XEN MID

Client Sample ID: C-11b
Date Collected: 05/20/22 12:47
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	26100	05/24/22 13:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26075	05/24/22 20:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26248	05/25/22 09:45	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26195	05/24/22 15:43	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26124	05/24/22 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26134	05/24/22 17:07	SM	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Client Sample ID: C-11b

Date Collected: 05/20/22 12:47
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	26113	05/23/22 17:39	SC	XEN MID
Soluble	Analysis	300.0		10			26375	05/27/22 20:53	SC	XEN MID

Client Sample ID: C-12

Date Collected: 05/20/22 12:45
Date Received: 05/23/22 15:13

Lab Sample ID: 880-15064-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	26100	05/24/22 13:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26075	05/24/22 21:05	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26248	05/25/22 09:45	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26195	05/24/22 15:43	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26124	05/24/22 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26134	05/24/22 17:29	SM	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	26113	05/23/22 17:39	SC	XEN MID
Soluble	Analysis	300.0		10			26375	05/27/22 21:02	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-15064-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

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: Skeen 23 CTB

Job ID: 880-15064-1
SDG: 20-0107-09

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-15064-1	C-2	Solid	05/20/22 11:30	05/23/22 15:13
880-15064-2	C-3	Solid	05/20/22 11:32	05/23/22 15:13
880-15064-3	C-4	Solid	05/19/22 12:20	05/23/22 15:13
880-15064-4	C-5	Solid	05/19/22 12:31	05/23/22 15:13
880-15064-5	C-9	Solid	05/20/22 09:45	05/23/22 15:13
880-15064-6	C-11a	Solid	05/20/22 09:47	05/23/22 15:13
880-15064-7	C-11b	Solid	05/20/22 12:47	05/23/22 15:13
880-15064-8	C-12	Solid	05/20/22 12:45	05/23/22 15:13

No. 24733

150064

CHAIN-OF-CUSTODY

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

Data Reported to

DATE: 5/23/2022 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Skeen 23 CTB

LAI PROJECT #: 20-0107-09 COLLECTOR: JR

TRRP report? ☐ Yes ☒ No

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

TIME ZONE
Time zone/State: MST/MDT

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES	FIELD NOTES
C-2		5/20/22	1130	S	1				X		X	
C-3		5/20/22	1132									
C-4		5/19/22	1220									
C-5		5/19/22	1231									
C-9		5/20/22	0945									
C-11a			0947									
C-11b			1247									
C-12			1245									

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

TOTAL

880-15064 Chain of Custody

RELINQUISHED BY (Signature) DATE/TIME 5/23/22 1513 RECEIVED BY (Signature)

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

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

LABORATORY Xenco

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

LABORATORY USE ONLY:
RECEIVING TEMP 1.9/1.7 THERM# T2 TR5
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-15064-1
SDG Number: 20-0107-09

Login Number: 15064
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2334-1
Laboratory Sample Delivery Group: 20-0107-09
Client Project/Site: Skeen 23 CTB

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

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
6/6/2022 11:49:19 AM

Holly Taylor, Project Manager
(806)794-1296
Holly.Taylor@et.eurofinsus.com

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Laboratory Job ID: 890-2334-1
SDG: 20-0107-09

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 890-2334-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

Job ID: 890-2334-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2334-1

Receipt
The samples were received on 5/24/2022 2:58 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 26.0°C

GC VOA
Method 8021B: The method blank for preparation batch 880-26347 and analytical batch 880-26367 contained <AffectedAnalytes> above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples 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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

Client Sample ID: C-1

Lab Sample ID: 890-2334-1
Matrix: Solid
Date Collected: 05/24/22 12:00
Date Received: 05/24/22 14:58

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/26/22 11:13	05/26/22 22:40	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/26/22 11:13	05/26/22 22:40	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/26/22 11:13	05/26/22 22:40	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/26/22 11:13	05/26/22 22:40	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/26/22 11:13	05/26/22 22:40	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/26/22 11:13	05/26/22 22:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/26/22 11:13*	*05/26/22 22:40*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*05/26/22 11:13*	*05/26/22 22:40*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/26/22 17:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/26/22 09:34	05/26/22 14:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/26/22 09:34	05/26/22 14:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/22 09:34	05/26/22 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*92*		*70 - 130*	*05/26/22 09:34*	*05/26/22 14:30*	*1*
o-Terphenyl (Surr)	*105*		*70 - 130*	*05/26/22 09:34*	*05/26/22 14:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.6**		5.05		mg/Kg			05/30/22 03:02	1

Client Sample ID: C-1A

Lab Sample ID: 890-2334-2
Matrix: Solid
Date Collected: 05/24/22 12:02
Date Received: 05/24/22 14:58

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 23:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 23:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 23:01	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/26/22 11:13	05/26/22 23:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 23:01	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/26/22 11:13	05/26/22 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*05/26/22 11:13*	*05/26/22 23:01*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*05/26/22 11:13*	*05/26/22 23:01*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/26/22 17:30	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

Client Sample ID: C-1A

Date Collected: 05/24/22 12:02
Date Received: 05/24/22 14:58

Lab Sample ID: 890-2334-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/26/22 09:34	05/26/22 14:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/26/22 09:34	05/26/22 14:52	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/22 09:34	05/26/22 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*92*		*70 - 130*	*05/26/22 09:34*	*05/26/22 14:52*	*1*
o-Terphenyl (Surr)	*104*		*70 - 130*	*05/26/22 09:34*	*05/26/22 14:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**252**		4.99		mg/Kg			05/30/22 03:08	1

Client Sample ID: C-8

Date Collected: 05/24/22 09:52
Date Received: 05/24/22 14:58

Lab Sample ID: 890-2334-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/26/22 11:13	05/26/22 23:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/22 11:13	05/26/22 23:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/22 11:13	05/26/22 23:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/22 11:13	05/26/22 23:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/22 11:13	05/26/22 23:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/22 11:13	05/26/22 23:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*05/26/22 11:13*	*05/26/22 23:21*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*05/26/22 11:13*	*05/26/22 23:21*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/26/22 17:30	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		05/26/22 09:34	05/26/22 15:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/26/22 09:34	05/26/22 15:14	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/22 09:34	05/26/22 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*90*		*70 - 130*	*05/26/22 09:34*	*05/26/22 15:14*	*1*
o-Terphenyl (Surr)	*101*		*70 - 130*	*05/26/22 09:34*	*05/26/22 15:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**342**		5.05		mg/Kg			05/30/22 03:14	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

Client Sample ID: C-8A

Date Collected: 05/24/22 09:50
Date Received: 05/24/22 14:58

Lab Sample ID: 890-2334-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 23:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 23:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 23:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/26/22 11:13	05/26/22 23:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 23:42	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/26/22 11:13	05/26/22 23:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*05/26/22 11:13*	*05/26/22 23:42*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*05/26/22 11:13*	*05/26/22 23:42*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**72.7**		50.0		mg/Kg			05/26/22 17:30	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	**72.7**		50.0		mg/Kg		05/26/22 09:34	05/26/22 15:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/26/22 09:34	05/26/22 15:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/22 09:34	05/26/22 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*98*		*70 - 130*	*05/26/22 09:34*	*05/26/22 15:35*	*1*
o-Terphenyl (Surr)	*113*		*70 - 130*	*05/26/22 09:34*	*05/26/22 15:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**319**		4.98		mg/Kg			05/30/22 03:33	1

Client Sample ID: C-10

Date Collected: 05/23/22 12:04
Date Received: 05/24/22 14:58

Lab Sample ID: 890-2334-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/26/22 16:00	05/27/22 06:15	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/26/22 16:00	05/27/22 06:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/26/22 16:00	05/27/22 06:15	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/26/22 16:00	05/27/22 06:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/26/22 16:00	05/27/22 06:15	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/26/22 16:00	05/27/22 06:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*05/26/22 16:00*	*05/27/22 06:15*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*05/26/22 16:00*	*05/27/22 06:15*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/26/22 17:30	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

Client Sample ID: C-10

Date Collected: 05/23/22 12:04
Date Received: 05/24/22 14:58

Lab Sample ID: 890-2334-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/26/22 09:34	05/26/22 15:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/26/22 09:34	05/26/22 15:57	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/22 09:34	05/26/22 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*106*		*70 - 130*	*05/26/22 09:34*	*05/26/22 15:57*	*1*
o-Terphenyl (Surr)	*116*		*70 - 130*	*05/26/22 09:34*	*05/26/22 15:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**198**		4.95		mg/Kg			05/30/22 03:40	1

Client Sample ID: C-10A

Date Collected: 05/23/22 13:02
Date Received: 05/24/22 14:58

Lab Sample ID: 890-2334-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/26/22 16:00	05/27/22 07:37	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/22 16:00	05/27/22 07:37	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/22 16:00	05/27/22 07:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/22 16:00	05/27/22 07:37	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/22 16:00	05/27/22 07:37	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/22 16:00	05/27/22 07:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*05/26/22 16:00*	*05/27/22 07:37*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*05/26/22 16:00*	*05/27/22 07:37*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**90.4**		49.9		mg/Kg			05/26/22 17:30	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	**90.4**		49.9		mg/Kg		05/26/22 09:34	05/26/22 16:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/26/22 09:34	05/26/22 16:19	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/22 09:34	05/26/22 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*93*		*70 - 130*	*05/26/22 09:34*	*05/26/22 16:19*	*1*
o-Terphenyl (Surr)	*107*		*70 - 130*	*05/26/22 09:34*	*05/26/22 16:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4120**		100		mg/Kg			06/04/22 19:57	20

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2334-1	C-1	102	108
890-2334-2	C-1A	90	106
890-2334-3	C-8	92	107
890-2334-4	C-8A	93	109
890-2334-5	C-10	113	99
890-2334-5 MS	C-10	101	102
890-2334-5 MSD	C-10	105	103
890-2334-6	C-10A	107	99
LCS 880-26347/1-A	Lab Control Sample	92	105
LCS 880-26358/1-A	Lab Control Sample	99	101
LCSD 880-26347/2-A	Lab Control Sample Dup	91	106
LCSD 880-26358/2-A	Lab Control Sample Dup	98	100
MB 880-26303/5-A	Method Blank	99	100
MB 880-26347/5-A	Method Blank	85	100
MB 880-26358/5-A	Method Blank	97	97

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2334-1	C-1	92	105
890-2334-2	C-1A	92	104
890-2334-3	C-8	90	101
890-2334-4	C-8A	98	113
890-2334-5	C-10	106	116
890-2334-6	C-10A	93	107
LCS 880-26323/2-A	Lab Control Sample	101	98
LCSD 880-26323/3-A	Lab Control Sample Dup	93	89
MB 880-26323/1-A	Method Blank	93	106

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 890-2334-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26303/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26372 **Prep Batch: 26303**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/22 08:16	05/26/22 18:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/22 08:16	05/26/22 18:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/22 08:16	05/26/22 18:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/22 08:16	05/26/22 18:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/22 08:16	05/26/22 18:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/22 08:16	05/26/22 18:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/26/22 08:16*	*05/26/22 18:10*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/26/22 08:16*	*05/26/22 18:10*	*1*

Lab Sample ID: MB 880-26347/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26367 **Prep Batch: 26347**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 16:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 16:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 16:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/22 11:13	05/26/22 16:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/22 11:13	05/26/22 16:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/22 11:13	05/26/22 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*05/26/22 11:13*	*05/26/22 16:09*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/26/22 11:13*	*05/26/22 16:09*	*1*

Lab Sample ID: LCS 880-26347/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26367 **Prep Batch: 26347**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1121		mg/Kg		112	70 - 130		
Toluene			0.100	0.1077		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1115		mg/Kg		112	70 - 130		
m-Xylene & p-Xylene			0.200	0.2223		mg/Kg		111	70 - 130		
o-Xylene			0.100	0.1071		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-26347/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26367 **Prep Batch: 26347**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1107		mg/Kg		111	70 - 130	1	35

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 890-2334-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

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

Lab Sample ID: LCSD 880-26347/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26367 **Prep Batch: 26347**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1017		mg/Kg		102	70 - 130	6	35
Ethylbenzene			0.100	0.1061		mg/Kg		106	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2108		mg/Kg		105	70 - 130	5	35
o-Xylene			0.100	0.1011		mg/Kg		101	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: MB 880-26358/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26372 **Prep Batch: 26358**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/22 16:00	05/27/22 05:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/22 16:00	05/27/22 05:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/22 16:00	05/27/22 05:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/22 16:00	05/27/22 05:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/22 16:00	05/27/22 05:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/22 16:00	05/27/22 05:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*05/26/22 16:00*	*05/27/22 05:46*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/26/22 16:00*	*05/27/22 05:46*	*1*

Lab Sample ID: LCS 880-26358/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26372 **Prep Batch: 26358**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene			0.100	0.09368		mg/Kg		94	70 - 130
Toluene			0.100	0.09423		mg/Kg		94	70 - 130
Ethylbenzene			0.100	0.08832		mg/Kg		88	70 - 130
m-Xylene & p-Xylene			0.200	0.2024		mg/Kg		101	70 - 130
o-Xylene			0.100	0.1004		mg/Kg		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-26358/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26372 **Prep Batch: 26358**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08992		mg/Kg		90	70 - 130	4	35
Toluene			0.100	0.09503		mg/Kg		95	70 - 130	1	35
Ethylbenzene			0.100	0.08869		mg/Kg		89	70 - 130	0	35

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 890-2334-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

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

Lab Sample ID: LCSD 880-26358/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26372 **Prep Batch: 26358**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene			0.200	0.2041		mg/Kg		102	70 - 130	1	35
o-Xylene			0.100	0.1011		mg/Kg		101	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-2334-5 MS **Client Sample ID: C-10**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26372 **Prep Batch: 26358**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.0998	0.09309		mg/Kg		93	70 - 130
Toluene	<0.00198	U	0.0998	0.09471		mg/Kg		95	70 - 130
Ethylbenzene	<0.00198	U	0.0998	0.08705		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	<0.00397	U	0.200	0.1983		mg/Kg		99	70 - 130
o-Xylene	<0.00198	U	0.0998	0.09795		mg/Kg		98	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-2334-5 MSD **Client Sample ID: C-10**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26372 **Prep Batch: 26358**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.09777		mg/Kg		97	70 - 130	5	35
Toluene	<0.00198	U	0.101	0.09986		mg/Kg		99	70 - 130	5	35
Ethylbenzene	<0.00198	U	0.101	0.09223		mg/Kg		92	70 - 130	6	35
m-Xylene & p-Xylene	<0.00397	U	0.201	0.2113		mg/Kg		105	70 - 130	6	35
o-Xylene	<0.00198	U	0.101	0.1038		mg/Kg		103	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

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

Lab Sample ID: MB 880-26323/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26299 **Prep Batch: 26323**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/26/22 09:34	05/26/22 11:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/26/22 09:34	05/26/22 11:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/22 09:34	05/26/22 11:02	1

Eurofins Carlsbad

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 890-2334-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	93		70 - 130	05/26/22 09:34	05/26/22 11:02	1
o-Terphenyl (Surr)	106		70 - 130	05/26/22 09:34	05/26/22 11:02	1

Lab Sample ID: LCS 880-26323/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26299 **Prep Batch: 26323**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1052		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1191		mg/Kg		119	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	101		70 - 130
o-Terphenyl (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-26323/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 26299 **Prep Batch: 26323**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	896.2		mg/Kg		90	70 - 130	16	20
Diesel Range Organics (Over C10-C28)			1000	1008		mg/Kg		101	70 - 130	17	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	93		70 - 130
o-Terphenyl (Surr)	89		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26274/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 26502

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/30/22 01:27	1

Lab Sample ID: LCS 880-26274/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 26502

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.7		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-26274/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 26502

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	269.2		mg/Kg		108	90 - 110	4	20

Eurofins Carlsbad

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-2334-3 MS
Matrix: Solid
Analysis Batch: 26502

Client Sample ID: C-8
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	342		253	599.8		mg/Kg		102	90 - 110		

Lab Sample ID: 890-2334-3 MSD
Matrix: Solid
Analysis Batch: 26502

Client Sample ID: C-8
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	342		253	600.1		mg/Kg		102	90 - 110	0	20

Lab Sample ID: MB 880-26795/1-A
Matrix: Solid
Analysis Batch: 26859

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/04/22 17:07	1

Lab Sample ID: LCS 880-26795/2-A
Matrix: Solid
Analysis Batch: 26859

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.0		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-26795/3-A
Matrix: Solid
Analysis Batch: 26859

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	254.3		mg/Kg		102	90 - 110	2	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

GC VOA

Prep Batch: 26303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-26303/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 26347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-1	C-1	Total/NA	Solid	5035	
890-2334-2	C-1A	Total/NA	Solid	5035	
890-2334-3	C-8	Total/NA	Solid	5035	
890-2334-4	C-8A	Total/NA	Solid	5035	
MB 880-26347/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26347/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26347/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 26358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-5	C-10	Total/NA	Solid	5035	
890-2334-6	C-10A	Total/NA	Solid	5035	
MB 880-26358/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26358/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26358/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2334-5 MS	C-10	Total/NA	Solid	5035	
890-2334-5 MSD	C-10	Total/NA	Solid	5035	

Analysis Batch: 26367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-1	C-1	Total/NA	Solid	8021B	26347
890-2334-2	C-1A	Total/NA	Solid	8021B	26347
890-2334-3	C-8	Total/NA	Solid	8021B	26347
890-2334-4	C-8A	Total/NA	Solid	8021B	26347
MB 880-26347/5-A	Method Blank	Total/NA	Solid	8021B	26347
LCS 880-26347/1-A	Lab Control Sample	Total/NA	Solid	8021B	26347
LCSD 880-26347/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26347

Analysis Batch: 26372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-5	C-10	Total/NA	Solid	8021B	26358
890-2334-6	C-10A	Total/NA	Solid	8021B	26358
MB 880-26303/5-A	Method Blank	Total/NA	Solid	8021B	26303
MB 880-26358/5-A	Method Blank	Total/NA	Solid	8021B	26358
LCS 880-26358/1-A	Lab Control Sample	Total/NA	Solid	8021B	26358
LCSD 880-26358/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26358
890-2334-5 MS	C-10	Total/NA	Solid	8021B	26358
890-2334-5 MSD	C-10	Total/NA	Solid	8021B	26358

GC Semi VOA

Analysis Batch: 26299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-1	C-1	Total/NA	Solid	8015B NM	26323
890-2334-2	C-1A	Total/NA	Solid	8015B NM	26323
890-2334-3	C-8	Total/NA	Solid	8015B NM	26323
890-2334-4	C-8A	Total/NA	Solid	8015B NM	26323

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 890-2334-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

GC Semi VOA (Continued)

Analysis Batch: 26299 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-5	C-10	Total/NA	Solid	8015B NM	26323
890-2334-6	C-10A	Total/NA	Solid	8015B NM	26323
MB 880-26323/1-A	Method Blank	Total/NA	Solid	8015B NM	26323
LCS 880-26323/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26323
LCSD 880-26323/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26323

Prep Batch: 26323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-1	C-1	Total/NA	Solid	8015NM Prep	
890-2334-2	C-1A	Total/NA	Solid	8015NM Prep	
890-2334-3	C-8	Total/NA	Solid	8015NM Prep	
890-2334-4	C-8A	Total/NA	Solid	8015NM Prep	
890-2334-5	C-10	Total/NA	Solid	8015NM Prep	
890-2334-6	C-10A	Total/NA	Solid	8015NM Prep	
MB 880-26323/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26323/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26323/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 26389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-1	C-1	Total/NA	Solid	8015 NM	
890-2334-2	C-1A	Total/NA	Solid	8015 NM	
890-2334-3	C-8	Total/NA	Solid	8015 NM	
890-2334-4	C-8A	Total/NA	Solid	8015 NM	
890-2334-5	C-10	Total/NA	Solid	8015 NM	
890-2334-6	C-10A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 26274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-1	C-1	Soluble	Solid	DI Leach	
890-2334-2	C-1A	Soluble	Solid	DI Leach	
890-2334-3	C-8	Soluble	Solid	DI Leach	
890-2334-4	C-8A	Soluble	Solid	DI Leach	
890-2334-5	C-10	Soluble	Solid	DI Leach	
MB 880-26274/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26274/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26274/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2334-3 MS	C-8	Soluble	Solid	DI Leach	
890-2334-3 MSD	C-8	Soluble	Solid	DI Leach	

Analysis Batch: 26502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-1	C-1	Soluble	Solid	300.0	26274
890-2334-2	C-1A	Soluble	Solid	300.0	26274
890-2334-3	C-8	Soluble	Solid	300.0	26274
890-2334-4	C-8A	Soluble	Solid	300.0	26274
890-2334-5	C-10	Soluble	Solid	300.0	26274
MB 880-26274/1-A	Method Blank	Soluble	Solid	300.0	26274
LCS 880-26274/2-A	Lab Control Sample	Soluble	Solid	300.0	26274

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 890-2334-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

HPLC/IC (Continued)

Analysis Batch: 26502 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-26274/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26274
890-2334-3 MS	C-8	Soluble	Solid	300.0	26274
890-2334-3 MSD	C-8	Soluble	Solid	300.0	26274

Leach Batch: 26795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-6	C-10A	Soluble	Solid	DI Leach	
MB 880-26795/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26795/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26795/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 26859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2334-6	C-10A	Soluble	Solid	300.0	26795
MB 880-26795/1-A	Method Blank	Soluble	Solid	300.0	26795
LCS 880-26795/2-A	Lab Control Sample	Soluble	Solid	300.0	26795
LCSD 880-26795/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26795

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

Client Sample ID: C-1

Lab Sample ID: 890-2334-1
Matrix: Solid
Date Collected: 05/24/22 12:00
Date Received: 05/24/22 14:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	26347	05/26/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26367	05/26/22 22:40	MR	XEN MID
Total/NA	Analysis	8015 NM		1			26389	05/26/22 17:30	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26323	05/26/22 09:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26299	05/26/22 14:30	SM	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	26274	05/26/22 12:35	SC	XEN MID
Soluble	Analysis	300.0		1			26502	05/30/22 03:02	SC	XEN MID

Client Sample ID: C-1A

Lab Sample ID: 890-2334-2
Matrix: Solid
Date Collected: 05/24/22 12:02
Date Received: 05/24/22 14:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	26347	05/26/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26367	05/26/22 23:01	MR	XEN MID
Total/NA	Analysis	8015 NM		1			26389	05/26/22 17:30	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26323	05/26/22 09:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26299	05/26/22 14:52	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	26274	05/26/22 12:35	SC	XEN MID
Soluble	Analysis	300.0		1			26502	05/30/22 03:08	SC	XEN MID

Client Sample ID: C-8

Lab Sample ID: 890-2334-3
Matrix: Solid
Date Collected: 05/24/22 09:52
Date Received: 05/24/22 14:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	26347	05/26/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26367	05/26/22 23:21	MR	XEN MID
Total/NA	Analysis	8015 NM		1			26389	05/26/22 17:30	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	26323	05/26/22 09:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26299	05/26/22 15:14	SM	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	26274	05/26/22 12:35	SC	XEN MID
Soluble	Analysis	300.0		1			26502	05/30/22 03:14	SC	XEN MID

Client Sample ID: C-8A

Lab Sample ID: 890-2334-4
Matrix: Solid
Date Collected: 05/24/22 09:50
Date Received: 05/24/22 14:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	26347	05/26/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26367	05/26/22 23:42	MR	XEN MID
Total/NA	Analysis	8015 NM		1			26389	05/26/22 17:30	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26323	05/26/22 09:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26299	05/26/22 15:35	SM	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

Client Sample ID: C-8A

Date Collected: 05/24/22 09:50
Date Received: 05/24/22 14:58

Lab Sample ID: 890-2334-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	26274	05/26/22 12:35	SC	XEN MID
Soluble	Analysis	300.0		1			26502	05/30/22 03:33	SC	XEN MID

Client Sample ID: C-10

Date Collected: 05/23/22 12:04
Date Received: 05/24/22 14:58

Lab Sample ID: 890-2334-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	26358	05/26/22 16:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26372	05/27/22 06:15	MR	XEN MID
Total/NA	Analysis	8015 NM		1			26389	05/26/22 17:30	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26323	05/26/22 09:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26299	05/26/22 15:57	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	26274	05/26/22 12:35	SC	XEN MID
Soluble	Analysis	300.0		1			26502	05/30/22 03:40	SC	XEN MID

Client Sample ID: C-10A

Date Collected: 05/23/22 13:02
Date Received: 05/24/22 14:58

Lab Sample ID: 890-2334-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	26358	05/26/22 16:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26372	05/27/22 07:37	MR	XEN MID
Total/NA	Analysis	8015 NM		1			26389	05/26/22 17:30	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	26323	05/26/22 09:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26299	05/26/22 16:19	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	26795	06/03/22 09:55	CH	XEN MID
Soluble	Analysis	300.0		20			26859	06/04/22 19:57	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 890-2334-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH

Method Summary

Client: Larson & Associates, Inc. Job ID: 890-2334-1
Project/Site: Skeen 23 CTB SDG: 20-0107-09

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	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.

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: Skeen 23 CTB

Job ID: 890-2334-1
SDG: 20-0107-09

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2334-1	C-1	Solid	05/24/22 12:00	05/24/22 14:58
890-2334-2	C-1A	Solid	05/24/22 12:02	05/24/22 14:58
890-2334-3	C-8	Solid	05/24/22 09:52	05/24/22 14:58
890-2334-4	C-8A	Solid	05/24/22 09:50	05/24/22 14:58
890-2334-5	C-10	Solid	05/23/22 12:04	05/24/22 14:58
890-2334-6	C-10A	Solid	05/23/22 13:02	05/24/22 14:58

No. 2532

CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 5/24/22 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Skeen 23 CTB

LAI PROJECT #: 20-0108-09 COLLECTOR: JR

TRRP report? ☐ Yes ☐ No

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

TIME ZONE: Time zone/State: NM/MST

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH	ICE	UNPRESERVED	ANALYSES: BTEX MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐	TCLP - PEST ☐ HERB ☐	TCLP VOC ☐	TOTAL METALS (RCRA) ☐	Semi-VOC ☐	LEAD - TOTAL ☐	D.W. 200.8 ☐	OTHER LIST ☐	RCI ☐	TOX ☐	TCLP ☐	TDS ☐	TSS ☐	FLASHPOINT ☐	pH ☐	% MOISTURE ☐	EXPLOSIVES ☐	HEXAVALENT CHROMIUM ☐	CHLORIDES ☐	CYANIDE ☐	ANIONS ☐	PECHLORATE ☐	ALKALINITY ☐	FIELD NOTES
C-1		5/24	12:00	S	1						X			X	X	X																											
C-1a		5/24	12:02	S	1						X			X	X	X																											
C-8		5/24	9:52	S	1						X			X	X	X																											
C-8a		5/24	9:56	S	1						X			X	X	X																											
C-10		5/23	12:04	S	1						X			X	X	X																											
C-10a		5/23	13:02	S	1						X			X	X	X																											
TOTAL																																											

890-2334 Chain of Custody

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
	5/24	14:52
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
	5.24.22	1458
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)

LABORATORY: Xenco (Carlsbad)

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

LABORATORY USE ONLY:
RECEIVING TEMP: 24.2 26.0 THERM#: TNM-007
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED X
☐ CARRIER BILL # CIP-Cooling In Process
☐ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 890-2334-1
SDG Number: 20-0107-09

Login Number: 2334
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 890-2334-1
SDG Number: 20-0107-09

Login Number: 2334
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 05/26/22 10:20 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 880-15818-1
Laboratory Sample Delivery Group: 20-0107-09
Client Project/Site: Skeen 23-CTB

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

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
6/21/2022 4:55:43 PM

Holly Taylor, Project Manager
(806)794-1296
Holly.Taylor@et.eurofinsus.com

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Laboratory Job ID: 880-15818-1
SDG: 20-0107-09

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-15818-1
Project/Site: Skeen 23-CTB SDG: 20-0107-09

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, low biased.
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Job ID: 880-15818-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-15818-1

Comments
No additional comments.

Receipt
The samples were received on 6/14/2022 9:29 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 was 4.9º C.

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: C-14 (880-15818-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: CCV biased low for m-Xylene & p-Xylene, however an acceptable CCV was analyzed within the 12 hour window, therefore data was qualified and reported.
(CCV 880-27853/20)

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: The laboratory control sample (LCS) associated with preparation batch 880-27469 and analytical batch 880-27465 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 8015B NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-27556 and analytical batch 880-27563 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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 880-27635 and analytical batch 880-27843 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Client Sample ID: C-13

Date Collected: 06/13/22 11:00
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/17/22 09:27	06/18/22 23:46	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/17/22 09:27	06/18/22 23:46	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/17/22 09:27	06/18/22 23:46	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		06/17/22 09:27	06/18/22 23:46	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/17/22 09:27	06/18/22 23:46	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/17/22 09:27	06/18/22 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*06/17/22 09:27*	*06/18/22 23:46*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*06/17/22 09:27*	*06/18/22 23:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			06/20/22 15:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/15/22 09:21	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		06/14/22 16:00	06/14/22 19:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/14/22 16:00	06/14/22 19:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/14/22 16:00	06/14/22 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*75*		*70 - 130*	*06/14/22 16:00*	*06/14/22 19:53*	*1*
o-Terphenyl (Surr)	*73*		*70 - 130*	*06/14/22 16:00*	*06/14/22 19:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**462**	**F1**	5.00		mg/Kg			06/19/22 02:35	1

Client Sample ID: C-14

Date Collected: 06/13/22 11:05
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 00:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 00:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 00:07	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		06/17/22 09:27	06/19/22 00:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 00:07	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/17/22 09:27	06/19/22 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*140*	*S1+*	*70 - 130*	*06/17/22 09:27*	*06/19/22 00:07*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/17/22 09:27*	*06/19/22 00:07*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Client Sample ID: C-14

Date Collected: 06/13/22 11:05
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-2

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/20/22 15:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/15/22 09:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		06/14/22 16:00	06/14/22 20:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/14/22 16:00	06/14/22 20:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/14/22 16:00	06/14/22 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*78*		*70 - 130*	*06/14/22 16:00*	*06/14/22 20:14*	*1*
o-Terphenyl (Surr)	*77*		*70 - 130*	*06/14/22 16:00*	*06/14/22 20:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**573**		4.97		mg/Kg			06/19/22 02:58	1

Client Sample ID: C-15

Date Collected: 06/13/22 11:10
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/17/22 09:27	06/19/22 00:27	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/17/22 09:27	06/19/22 00:27	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/17/22 09:27	06/19/22 00:27	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/17/22 09:27	06/19/22 00:27	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/17/22 09:27	06/19/22 00:27	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/17/22 09:27	06/19/22 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*06/17/22 09:27*	*06/19/22 00:27*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*06/17/22 09:27*	*06/19/22 00:27*	*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			06/20/22 15:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/15/22 09:21	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		06/14/22 16:00	06/14/22 20:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/14/22 16:00	06/14/22 20:36	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-15818-1
Project/Site: Skeen 23-CTB SDG: 20-0107-09

Client Sample ID: C-15 Lab Sample ID: 880-15818-3
Date Collected: 06/13/22 11:10 **Matrix: Solid**
Date Received: 06/14/22 09:29

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/14/22 16:00	06/14/22 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*76*		*70 - 130*	*06/14/22 16:00*	*06/14/22 20:36*	*1*
o-Terphenyl (Surr)	*74*		*70 - 130*	*06/14/22 16:00*	*06/14/22 20:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**608**		5.00		mg/Kg			06/19/22 03:06	1

Client Sample ID: C-16 Lab Sample ID: 880-15818-4
Date Collected: 06/13/22 11:15 **Matrix: Solid**
Date Received: 06/14/22 09:29

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 00:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 00:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 00:48	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		06/17/22 09:27	06/19/22 00:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 00:48	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/17/22 09:27	06/19/22 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*06/17/22 09:27*	*06/19/22 00:48*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/17/22 09:27*	*06/19/22 00:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			06/20/22 15:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/15/22 09:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		06/14/22 16:00	06/14/22 20:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/14/22 16:00	06/14/22 20:58	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/14/22 16:00	06/14/22 20:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*73*		*70 - 130*	*06/14/22 16:00*	*06/14/22 20:58*	*1*
o-Terphenyl (Surr)	*71*		*70 - 130*	*06/14/22 16:00*	*06/14/22 20:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**650**		4.96		mg/Kg			06/19/22 03:14	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Client Sample ID: C-17

Date Collected: 06/13/22 11:20
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/17/22 09:27	06/19/22 01:09	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/17/22 09:27	06/19/22 01:09	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/17/22 09:27	06/19/22 01:09	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		06/17/22 09:27	06/19/22 01:09	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/17/22 09:27	06/19/22 01:09	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/17/22 09:27	06/19/22 01:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*06/17/22 09:27*	*06/19/22 01:09*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/17/22 09:27*	*06/19/22 01:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			06/20/22 15:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/15/22 09:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		06/15/22 08:52	06/15/22 14:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/15/22 08:52	06/15/22 14:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/15/22 08:52	06/15/22 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*103*		*70 - 130*	*06/15/22 08:52*	*06/15/22 14:02*	*1*
o-Terphenyl (Surr)	*112*		*70 - 130*	*06/15/22 08:52*	*06/15/22 14:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**421**		5.01		mg/Kg			06/19/22 03:22	1

Client Sample ID: C-18

Date Collected: 06/13/22 11:25
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-6

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/17/22 09:27	06/19/22 01:29	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/17/22 09:27	06/19/22 01:29	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/17/22 09:27	06/19/22 01:29	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		06/17/22 09:27	06/19/22 01:29	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/17/22 09:27	06/19/22 01:29	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/17/22 09:27	06/19/22 01:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*06/17/22 09:27*	*06/19/22 01:29*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/17/22 09:27*	*06/19/22 01:29*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Client Sample ID: C-18

Date Collected: 06/13/22 11:25
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-6

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			06/20/22 15:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/15/22 09:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		06/15/22 08:52	06/15/22 14:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/15/22 08:52	06/15/22 14:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/15/22 08:52	06/15/22 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*92*		*70 - 130*	*06/15/22 08:52*	*06/15/22 14:24*	*1*
o-Terphenyl (Surr)	*106*		*70 - 130*	*06/15/22 08:52*	*06/15/22 14:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**452**		5.05		mg/Kg			06/19/22 05:12	1

Client Sample ID: C-10a

Date Collected: 06/13/22 11:30
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 01:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 01:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 01:50	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		06/17/22 09:27	06/19/22 01:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/19/22 01:50	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/17/22 09:27	06/19/22 01:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*06/17/22 09:27*	*06/19/22 01:50*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*06/17/22 09:27*	*06/19/22 01:50*	*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			06/20/22 15:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/15/22 09:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		06/15/22 08:52	06/15/22 14:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/15/22 08:52	06/15/22 14:46	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Client Sample ID: C-10a

Date Collected: 06/13/22 11:30
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-7

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/15/22 08:52	06/15/22 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*85*		*70 - 130*	*06/15/22 08:52*	*06/15/22 14:46*	*1*
o-Terphenyl (Surr)	*97*		*70 - 130*	*06/15/22 08:52*	*06/15/22 14:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**599**		4.99		mg/Kg			06/19/22 05:39	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-15818-1	C-13	100	100
880-15818-1 MS	C-13	122	101
880-15818-1 MSD	C-13	91	106
880-15818-2	C-14	140 S1+	95
880-15818-3	C-15	101	100
880-15818-4	C-16	109	97
880-15818-5	C-17	114	97
880-15818-6	C-18	118	91
880-15818-7	C-10a	102	104
LCS 880-27771/1-A	Lab Control Sample	102	99
LCSD 880-27771/2-A	Lab Control Sample Dup	92	109
MB 880-27771/5-A	Method Blank	97	102
MB 880-27795/5-A	Method Blank	92	105

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-15818-1	C-13	75	73
880-15818-2	C-14	78	77
880-15818-3	C-15	76	74
880-15818-4	C-16	73	71
880-15818-5	C-17	103	112
880-15818-6	C-18	92	106
880-15818-7	C-10a	85	97
880-15888-A-1-B MS	Matrix Spike	88	91
880-15888-A-1-C MSD	Matrix Spike Duplicate	89	92
890-2406-A-13-B MS	Matrix Spike	83	75
890-2406-A-13-C MSD	Matrix Spike Duplicate	85	77
LCS 880-27469/2-A	Lab Control Sample	75	75
LCS 880-27556/2-A	Lab Control Sample	103	113
LCSD 880-27469/3-A	Lab Control Sample Dup	79	78
LCSD 880-27556/3-A	Lab Control Sample Dup	93	106
MB 880-27469/1-A	Method Blank	84	94
MB 880-27556/1-A	Method Blank	99	114

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-27771/5-A
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27771

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/18/22 23:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/18/22 23:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/18/22 23:24	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		06/17/22 09:27	06/18/22 23:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 09:27	06/18/22 23:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/17/22 09:27	06/18/22 23:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*06/17/22 09:27*	*06/18/22 23:24*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/17/22 09:27*	*06/18/22 23:24*	*1*

Lab Sample ID: LCS 880-27771/1-A
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27771

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08826		mg/Kg		88	70 - 130		
Toluene			0.100	0.09631		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.08723		mg/Kg		87	70 - 130		
m,p-Xylenes			0.200	0.1752		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.09958		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-27771/2-A
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27771

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1100		mg/Kg		110	70 - 130	22	35
Toluene			0.100	0.09818		mg/Kg		98	70 - 130	2	35
Ethylbenzene			0.100	0.08164		mg/Kg		82	70 - 130	7	35
m,p-Xylenes			0.200	0.1579		mg/Kg		79	70 - 130	10	35
o-Xylene			0.100	0.08972		mg/Kg		90	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 880-15818-1 MS
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: C-13
Prep Type: Total/NA
Prep Batch: 27771

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.07225		mg/Kg		72	70 - 130		
Toluene	<0.00201	U	0.100	0.08995		mg/Kg		90	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

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

Lab Sample ID: 880-15818-1 MS
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: C-13
Prep Type: Total/NA
Prep Batch: 27771

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.08677		mg/Kg		87	70 - 130
m,p-Xylenes	<0.00402	U	0.200	0.1793		mg/Kg		89	70 - 130
o-Xylene	<0.00201	U	0.100	0.1014		mg/Kg		101	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-15818-1 MSD
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: C-13
Prep Type: Total/NA
Prep Batch: 27771

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0992	0.09883		mg/Kg		99	70 - 130	31	35
Toluene	<0.00201	U	0.0992	0.09142		mg/Kg		92	70 - 130	2	35
Ethylbenzene	<0.00201	U	0.0992	0.07562		mg/Kg		76	70 - 130	14	35
m,p-Xylenes	<0.00402	U	0.198	0.1448		mg/Kg		73	70 - 130	21	35
o-Xylene	<0.00201	U	0.0992	0.08142		mg/Kg		82	70 - 130	22	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: MB 880-27795/5-A
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27795

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/17/22 10:04	06/18/22 11:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/17/22 10:04	06/18/22 11:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/17/22 10:04	06/18/22 11:53	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		06/17/22 10:04	06/18/22 11:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/17/22 10:04	06/18/22 11:53	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/17/22 10:04	06/18/22 11:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*06/17/22 10:04*	*06/18/22 11:53*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*06/17/22 10:04*	*06/18/22 11:53*	*1*

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

Lab Sample ID: MB 880-27469/1-A
Matrix: Solid
Analysis Batch: 27465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27469

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/14/22 08:45	06/14/22 11:20	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

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

Lab Sample ID: MB 880-27469/1-A
Matrix: Solid
Analysis Batch: 27465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27469

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/14/22 08:45	06/14/22 11:20	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/14/22 08:45	06/14/22 11:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*84*		*70 - 130*	*06/14/22 08:45*	*06/14/22 11:20*	*1*
o-Terphenyl (Surr)	*94*		*70 - 130*	*06/14/22 08:45*	*06/14/22 11:20*	*1*

Lab Sample ID: LCS 880-27469/2-A
Matrix: Solid
Analysis Batch: 27465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27469

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	684.1	*-	mg/Kg		68	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	743.2		mg/Kg		74	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*75*		*70 - 130*
o-Terphenyl (Surr)	*75*		*70 - 130*

Lab Sample ID: LCSD 880-27469/3-A
Matrix: Solid
Analysis Batch: 27465

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27469

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	708.0		mg/Kg		71	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	766.8		mg/Kg		77	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*79*		*70 - 130*
o-Terphenyl (Surr)	*78*		*70 - 130*

Lab Sample ID: 890-2406-A-13-B MS
Matrix: Solid
Analysis Batch: 27465

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 27469

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	998	816.8		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	998	836.6		mg/Kg		81	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*83*		*70 - 130*
o-Terphenyl (Surr)	*75*		*70 - 130*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

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

Lab Sample ID: 890-2406-A-13-C MSD
Matrix: Solid
Analysis Batch: 27465

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 27469

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	999	733.4		mg/Kg		73	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	875.9		mg/Kg		85	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*85*		*70 - 130*
o-Terphenyl (Surr)	*77*		*70 - 130*

Lab Sample ID: MB 880-27556/1-A
Matrix: Solid
Analysis Batch: 27563

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27556

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/15/22 08:52	06/15/22 11:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/15/22 08:52	06/15/22 11:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/15/22 08:52	06/15/22 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*99*		*70 - 130*	*06/15/22 08:52*	*06/15/22 11:07*	*1*
o-Terphenyl (Surr)	*114*		*70 - 130*	*06/15/22 08:52*	*06/15/22 11:07*	*1*

Lab Sample ID: LCS 880-27556/2-A
Matrix: Solid
Analysis Batch: 27563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27556

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1104		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1083		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*103*		*70 - 130*
o-Terphenyl (Surr)	*113*		*70 - 130*

Lab Sample ID: LCSD 880-27556/3-A
Matrix: Solid
Analysis Batch: 27563

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27556

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	837.3	*1	mg/Kg		84	70 - 130	27	20
Diesel Range Organics (Over C10-C28)			1000	1017		mg/Kg		102	70 - 130	6	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

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

Lab Sample ID: LCSD 880-27556/3-A
Matrix: Solid
Analysis Batch: 27563

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27556

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*93*		*70 - 130*
o-Terphenyl (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-15888-A-1-B MS
Matrix: Solid
Analysis Batch: 27563

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 27556

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	998	838.6		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	998	808.9		mg/Kg		81	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*88*		*70 - 130*
o-Terphenyl (Surr)	*91*		*70 - 130*

Lab Sample ID: 880-15888-A-1-C MSD
Matrix: Solid
Analysis Batch: 27563

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 27556

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	999	842.4		mg/Kg		82	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	851.7		mg/Kg		85	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*89*		*70 - 130*
o-Terphenyl (Surr)	*92*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27635/1-A
Matrix: Solid
Analysis Batch: 27843

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/19/22 02:11	1

Lab Sample ID: LCS 880-27635/2-A
Matrix: Solid
Analysis Batch: 27843

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.8		mg/Kg		104	90 - 110		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-27635/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 27843

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	260.7		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-15818-1 MS — **Client Sample ID: C-13**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 27843

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	462	F1	250	748.1	F1	mg/Kg		114	90 - 110		

Lab Sample ID: 880-15818-1 MSD — **Client Sample ID: C-13**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 27843

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	462	F1	250	747.7	F1	mg/Kg		114	90 - 110	0	20

Lab Sample ID: MB 880-27636/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 27857

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/19/22 04:44	1

Lab Sample ID: LCS 880-27636/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 27857

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	273.8		mg/Kg		110	90 - 110		

Lab Sample ID: LCSD 880-27636/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 27857

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	270.4		mg/Kg		108	90 - 110	1	20

Lab Sample ID: 880-15818-6 MS — **Client Sample ID: C-18**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 27857

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	452		253	709.0		mg/Kg		102	90 - 110		

Lab Sample ID: 880-15818-6 MSD — **Client Sample ID: C-18**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 27857

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	452		253	711.4		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

GC VOA

Prep Batch: 27771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-1	C-13	Total/NA	Solid	5035	
880-15818-2	C-14	Total/NA	Solid	5035	
880-15818-3	C-15	Total/NA	Solid	5035	
880-15818-4	C-16	Total/NA	Solid	5035	
880-15818-5	C-17	Total/NA	Solid	5035	
880-15818-6	C-18	Total/NA	Solid	5035	
880-15818-7	C-10a	Total/NA	Solid	5035	
MB 880-27771/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-27771/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-27771/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-15818-1 MS	C-13	Total/NA	Solid	5035	
880-15818-1 MSD	C-13	Total/NA	Solid	5035	

Prep Batch: 27795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-27795/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 27853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-1	C-13	Total/NA	Solid	8021B	27771
880-15818-2	C-14	Total/NA	Solid	8021B	27771
880-15818-3	C-15	Total/NA	Solid	8021B	27771
880-15818-4	C-16	Total/NA	Solid	8021B	27771
880-15818-5	C-17	Total/NA	Solid	8021B	27771
880-15818-6	C-18	Total/NA	Solid	8021B	27771
880-15818-7	C-10a	Total/NA	Solid	8021B	27771
MB 880-27771/5-A	Method Blank	Total/NA	Solid	8021B	27771
MB 880-27795/5-A	Method Blank	Total/NA	Solid	8021B	27795
LCS 880-27771/1-A	Lab Control Sample	Total/NA	Solid	8021B	27771
LCSD 880-27771/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27771
880-15818-1 MS	C-13	Total/NA	Solid	8021B	27771
880-15818-1 MSD	C-13	Total/NA	Solid	8021B	27771

Analysis Batch: 27975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-1	C-13	Total/NA	Solid	Total BTEX	
880-15818-2	C-14	Total/NA	Solid	Total BTEX	
880-15818-3	C-15	Total/NA	Solid	Total BTEX	
880-15818-4	C-16	Total/NA	Solid	Total BTEX	
880-15818-5	C-17	Total/NA	Solid	Total BTEX	
880-15818-6	C-18	Total/NA	Solid	Total BTEX	
880-15818-7	C-10a	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 27465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-1	C-13	Total/NA	Solid	8015B NM	27469
880-15818-2	C-14	Total/NA	Solid	8015B NM	27469
880-15818-3	C-15	Total/NA	Solid	8015B NM	27469
880-15818-4	C-16	Total/NA	Solid	8015B NM	27469

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

GC Semi VOA (Continued)

Analysis Batch: 27465 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-27469/1-A	Method Blank	Total/NA	Solid	8015B NM	27469
LCS 880-27469/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	27469
LCSD 880-27469/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	27469
890-2406-A-13-B MS	Matrix Spike	Total/NA	Solid	8015B NM	27469
890-2406-A-13-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	27469

Prep Batch: 27469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-1	C-13	Total/NA	Solid	8015NM Prep	
880-15818-2	C-14	Total/NA	Solid	8015NM Prep	
880-15818-3	C-15	Total/NA	Solid	8015NM Prep	
880-15818-4	C-16	Total/NA	Solid	8015NM Prep	
MB 880-27469/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-27469/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-27469/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2406-A-13-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2406-A-13-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 27556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-5	C-17	Total/NA	Solid	8015NM Prep	
880-15818-6	C-18	Total/NA	Solid	8015NM Prep	
880-15818-7	C-10a	Total/NA	Solid	8015NM Prep	
MB 880-27556/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-27556/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-27556/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-15888-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-15888-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 27563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-5	C-17	Total/NA	Solid	8015B NM	27556
880-15818-6	C-18	Total/NA	Solid	8015B NM	27556
880-15818-7	C-10a	Total/NA	Solid	8015B NM	27556
MB 880-27556/1-A	Method Blank	Total/NA	Solid	8015B NM	27556
LCS 880-27556/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	27556
LCSD 880-27556/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	27556
880-15888-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	27556
880-15888-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	27556

Analysis Batch: 27568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-1	C-13	Total/NA	Solid	8015 NM	
880-15818-2	C-14	Total/NA	Solid	8015 NM	
880-15818-3	C-15	Total/NA	Solid	8015 NM	
880-15818-4	C-16	Total/NA	Solid	8015 NM	
880-15818-5	C-17	Total/NA	Solid	8015 NM	
880-15818-6	C-18	Total/NA	Solid	8015 NM	
880-15818-7	C-10a	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

HPLC/IC

Leach Batch: 27635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-1	C-13	Soluble	Solid	DI Leach	
880-15818-2	C-14	Soluble	Solid	DI Leach	
880-15818-3	C-15	Soluble	Solid	DI Leach	
880-15818-4	C-16	Soluble	Solid	DI Leach	
880-15818-5	C-17	Soluble	Solid	DI Leach	
MB 880-27635/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27635/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27635/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-15818-1 MS	C-13	Soluble	Solid	DI Leach	
880-15818-1 MSD	C-13	Soluble	Solid	DI Leach	

Leach Batch: 27636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-6	C-18	Soluble	Solid	DI Leach	
880-15818-7	C-10a	Soluble	Solid	DI Leach	
MB 880-27636/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27636/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27636/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-15818-6 MS	C-18	Soluble	Solid	DI Leach	
880-15818-6 MSD	C-18	Soluble	Solid	DI Leach	

Analysis Batch: 27843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-1	C-13	Soluble	Solid	300.0	27635
880-15818-2	C-14	Soluble	Solid	300.0	27635
880-15818-3	C-15	Soluble	Solid	300.0	27635
880-15818-4	C-16	Soluble	Solid	300.0	27635
880-15818-5	C-17	Soluble	Solid	300.0	27635
MB 880-27635/1-A	Method Blank	Soluble	Solid	300.0	27635
LCS 880-27635/2-A	Lab Control Sample	Soluble	Solid	300.0	27635
LCSD 880-27635/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27635
880-15818-1 MS	C-13	Soluble	Solid	300.0	27635
880-15818-1 MSD	C-13	Soluble	Solid	300.0	27635

Analysis Batch: 27857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15818-6	C-18	Soluble	Solid	300.0	27636
880-15818-7	C-10a	Soluble	Solid	300.0	27636
MB 880-27636/1-A	Method Blank	Soluble	Solid	300.0	27636
LCS 880-27636/2-A	Lab Control Sample	Soluble	Solid	300.0	27636
LCSD 880-27636/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27636
880-15818-6 MS	C-18	Soluble	Solid	300.0	27636
880-15818-6 MSD	C-18	Soluble	Solid	300.0	27636

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Client Sample ID: C-13
Date Collected: 06/13/22 11:00
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	27771	06/17/22 09:27	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/18/22 23:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27975	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27568	06/15/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27469	06/14/22 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27465	06/14/22 19:53	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	27635	06/15/22 16:49	CH	XEN MID
Soluble	Analysis	300.0		1			27843	06/19/22 02:35	CH	XEN MID

Client Sample ID: C-14
Date Collected: 06/13/22 11:05
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	27771	06/17/22 09:27	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/19/22 00:07	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27975	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27568	06/15/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27469	06/14/22 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27465	06/14/22 20:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	27635	06/15/22 16:49	CH	XEN MID
Soluble	Analysis	300.0		1			27843	06/19/22 02:58	CH	XEN MID

Client Sample ID: C-15
Date Collected: 06/13/22 11:10
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	27771	06/17/22 09:27	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/19/22 00:27	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27975	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27568	06/15/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27469	06/14/22 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27465	06/14/22 20:36	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	27635	06/15/22 16:49	CH	XEN MID
Soluble	Analysis	300.0		1			27843	06/19/22 03:06	CH	XEN MID

Client Sample ID: C-16
Date Collected: 06/13/22 11:15
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	27771	06/17/22 09:27	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/19/22 00:48	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27975	06/20/22 15:31	SM	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Client Sample ID: C-16
Date Collected: 06/13/22 11:15
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			27568	06/15/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	27469	06/14/22 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27465	06/14/22 20:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	27635	06/15/22 16:49	CH	XEN MID
Soluble	Analysis	300.0		1			27843	06/19/22 03:14	CH	XEN MID

Client Sample ID: C-17
Date Collected: 06/13/22 11:20
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	27771	06/17/22 09:27	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/19/22 01:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27975	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27568	06/15/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27556	06/15/22 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27563	06/15/22 14:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	27635	06/15/22 16:49	CH	XEN MID
Soluble	Analysis	300.0		1			27843	06/19/22 03:22	CH	XEN MID

Client Sample ID: C-18
Date Collected: 06/13/22 11:25
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	27771	06/17/22 09:27	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/19/22 01:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27975	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27568	06/15/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27556	06/15/22 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27563	06/15/22 14:24	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	27636	06/15/22 16:51	CH	XEN MID
Soluble	Analysis	300.0		1			27857	06/19/22 05:12	CH	XEN MID

Client Sample ID: C-10a
Date Collected: 06/13/22 11:30
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	27771	06/17/22 09:27	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/19/22 01:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27975	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27568	06/15/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27556	06/15/22 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27563	06/15/22 14:46	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Client Sample ID: C-10a
Date Collected: 06/13/22 11:30
Date Received: 06/14/22 09:29

Lab Sample ID: 880-15818-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	27636	06/15/22 16:51	CH	XEN MID
Soluble	Analysis	300.0		1			27857	06/19/22 05:39	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-15818-1
Project/Site: Skeen 23-CTB SDG: 20-0107-09

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: Larson & Associates, Inc.
Project/Site: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

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: Skeen 23-CTB

Job ID: 880-15818-1
SDG: 20-0107-09

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-15818-1	C-13	Solid	06/13/22 11:00	06/14/22 09:29
880-15818-2	C-14	Solid	06/13/22 11:05	06/14/22 09:29
880-15818-3	C-15	Solid	06/13/22 11:10	06/14/22 09:29
880-15818-4	C-16	Solid	06/13/22 11:15	06/14/22 09:29
880-15818-5	C-17	Solid	06/13/22 11:20	06/14/22 09:29
880-15818-6	C-18	Solid	06/13/22 11:25	06/14/22 09:29
880-15818-7	C-10a	Solid	06/13/22 11:30	06/14/22 09:29

No. 2585

CHAIN-OF-CUSTODY

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

DATE 6/13/22 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME. Sheen 23 - CTB

LAI PROJECT #. 20-0107-09 COLLECTOR: JR

Data Reported to

TRRP report? ☐ Yes ☒ No

TIME ZONE Time zone/State: MST/NM

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

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐	TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐	HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐	TCLP VOC ☐	TCLP - PEST ☐	HERB ☐	Semi-VOC ☐	TOTAL METALS (RCRA) ☐	OTHER LIST ☐	LEAD - TOTAL ☐	D W 200.8 ☐	TCLP ☐	RCI ☐	TOX ☐	FLASHPOINT ☐	TDS ☐	TSS ☐	% MOISTURE ☐	pH ☐	HEXAVALENT CHROMIUM ☐	CYANIDE ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDES ☒	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
C-13		6/13	11:00	S	1				X		X		X	X	X																										X					
C-14		6/13	11:05		1				X		X		X	X	X																										X					
C-15		6/13	11:10		1				X		X		X	X	X																										X					
C-16		6/13	11:15		1				X		X		X	X	X																										X					
C-17		6/13	11:20		1				X		X		X	X	X																										X					
C-18		6/13	11:25		1				X		X		X	X	X																										X					
C-10a		6/13	11:30		1				X		X		X	X	X																										X					

880-15818 Chain of Custody

TOTAL 7

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
Daniel Alejandro	6/14/22 0929	
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY Xenco

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

LABORATORY USE ONLY:
RECEIVING TEMP 5/1/4.9 THERM# IR#12
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-15818-1
SDG Number: 20-0107-09

Login Number: 15818
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

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

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Skeen 23 CTB

Project Number: 20-0107-09

Location: New Mexico

Lab Order Number: 2H18001

NELAP ACCREDITED TNI LABORATORY

Current Certification

Report Date: 08/23/22

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-15 @ 3'	2H18001-01	Soil	08/17/22 12:00	08-18-2022 08:36
C-16 @ 5'	2H18001-02	Soil	08/17/22 13:00	08-18-2022 08:36
C-19 @ 2'	2H18001-03	Soil	08/17/22 10:00	08-18-2022 08:36
C-20 @ 3'	2H18001-04	Soil	08/17/22 11:00	08-18-2022 08:36

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

C-15 @ 3'

2H18001-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 18:42	EPA 8021B	
Toluene	ND	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 18:42	EPA 8021B	
Ethylbenzene	ND	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 18:42	EPA 8021B	
Xylene (p/m)	ND	0.00233	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 18:42	EPA 8021B	
Xylene (o)	ND	0.00116	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 18:42	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*123 %*	*80-120*		*P2H1811*	*08/18/22 16:11*	*08/18/22 18:42*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*84.2 %*	*80-120*		*P2H1811*	*08/18/22 16:11*	*08/18/22 18:42*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**244**	11.6	mg/kg dry	10	P2H1908	08/19/22 14:10	08/22/22 16:09	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	P2H1903	08/19/22 08:47	08/19/22 08:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.1	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 17:12	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 17:12	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 17:12	TPH 8015M	
Surrogate: 1-Chlorooctane		*85.8 %*	*70-130*		*P2H1805*	*08/18/22 12:45*	*08/18/22 17:12*	*TPH 8015M*	
Surrogate: o-Terphenyl		*97.1 %*	*70-130*		*P2H1805*	*08/18/22 12:45*	*08/18/22 17:12*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	08/18/22 12:45	08/18/22 17:12	calc	

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

C-16 @ 5'

2H18001-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.00119	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:03	EPA 8021B	
Toluene	ND	0.00119	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:03	EPA 8021B	
Ethylbenzene	ND	0.00119	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:03	EPA 8021B	
Xylene (p/m)	ND	0.00238	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:03	EPA 8021B	
Xylene (o)	ND	0.00119	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:03	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*86.3 %*	*80-120*		*P2H1811*	*08/18/22 16:11*	*08/18/22 19:03*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*127 %*	*80-120*		*P2H1811*	*08/18/22 16:11*	*08/18/22 19:03*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**171**	11.9	mg/kg dry	10	P2H1908	08/19/22 14:10	08/22/22 16:45	EPA 300.0	
% Moisture	**16.0**	0.1	%	1	P2H1903	08/19/22 08:47	08/19/22 08:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.8	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 17:34	TPH 8015M	
>C12-C28	ND	29.8	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 17:34	TPH 8015M	
>C28-C35	ND	29.8	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 17:34	TPH 8015M	
Surrogate: 1-Chlorooctane		*86.9 %*	*70-130*		*P2H1805*	*08/18/22 12:45*	*08/18/22 17:34*	*TPH 8015M*	
Surrogate: o-Terphenyl		*93.7 %*	*70-130*		*P2H1805*	*08/18/22 12:45*	*08/18/22 17:34*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	29.8	mg/kg dry	1	[CALC]	08/18/22 12:45	08/18/22 17:34	calc	

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

C-19 @ 2'

2H18001-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00118	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:25	EPA 8021B	
Toluene	ND	0.00118	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:25	EPA 8021B	
Ethylbenzene	ND	0.00118	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:25	EPA 8021B	
Xylene (p/m)	ND	0.00235	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:25	EPA 8021B	
Xylene (o)	ND	0.00118	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:25	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*134 %*	*80-120*		*P2H1811*	*08/18/22 16:11*	*08/18/22 19:25*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*89.0 %*	*80-120*		*P2H1811*	*08/18/22 16:11*	*08/18/22 19:25*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**14.6**	1.18	mg/kg dry	1	P2H1908	08/19/22 14:10	08/23/22 08:49	EPA 300.0	
% Moisture	**15.0**	0.1	%	1	P2H1903	08/19/22 08:47	08/19/22 08:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.4	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 17:57	TPH 8015M	
>C12-C28	ND	29.4	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 17:57	TPH 8015M	
>C28-C35	ND	29.4	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 17:57	TPH 8015M	
Surrogate: 1-Chlorooctane		*88.4 %*	*70-130*		*P2H1805*	*08/18/22 12:45*	*08/18/22 17:57*	*TPH 8015M*	
Surrogate: o-Terphenyl		*94.5 %*	*70-130*		*P2H1805*	*08/18/22 12:45*	*08/18/22 17:57*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	29.4	mg/kg dry	1	[CALC]	08/18/22 12:45	08/18/22 17:57	calc	

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

C-20 @ 3'

2H18001-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00119	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:46	EPA 8021B	
Toluene	ND	0.00119	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:46	EPA 8021B	
Ethylbenzene	ND	0.00119	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:46	EPA 8021B	
Xylene (p/m)	ND	0.00238	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:46	EPA 8021B	
Xylene (o)	ND	0.00119	mg/kg dry	1	P2H1811	08/18/22 16:11	08/18/22 19:46	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*87.7 %*	*80-120*		*P2H1811*	*08/18/22 16:11*	*08/18/22 19:46*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*133 %*	*80-120*		*P2H1811*	*08/18/22 16:11*	*08/18/22 19:46*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**196**	11.9	mg/kg dry	10	P2H1908	08/19/22 14:10	08/22/22 17:22	EPA 300.0	
% Moisture	**16.0**	0.1	%	1	P2H1903	08/19/22 08:47	08/19/22 08:50	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.8	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 18:19	TPH 8015M	
>C12-C28	ND	29.8	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 18:19	TPH 8015M	
>C28-C35	ND	29.8	mg/kg dry	1	P2H1805	08/18/22 12:45	08/18/22 18:19	TPH 8015M	
Surrogate: 1-Chlorooctane		*89.8 %*	*70-130*		*P2H1805*	*08/18/22 12:45*	*08/18/22 18:19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*96.4 %*	*70-130*		*P2H1805*	*08/18/22 12:45*	*08/18/22 18:19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	29.8	mg/kg dry	1	[CALC]	08/18/22 12:45	08/18/22 18:19	calc	

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2H1811 - * DEFAULT PREP *** **										
Blank (P2H1811-BLK1)				Prepared & Analyzed: 08/18/22						
Benzene	ND	0.00100	mg/kg							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*0.0986*		"	*0.120*		*82.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.139*		"	*0.120*		*116*	*80-120*			
LCS (P2H1811-BS1)				Prepared & Analyzed: 08/18/22						
Benzene	0.111	0.00100	mg/kg	0.100		111	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.117	0.00100	"	0.100		117	80-120			
Xylene (p/m)	0.204	0.00200	"	0.200		102	80-120			
Xylene (o)	0.102	0.00100	"	0.100		102	80-120			
Surrogate: 4-Bromofluorobenzene	*0.143*		"	*0.120*		*119*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.100*		"	*0.120*		*83.6*	*80-120*			
LCS Dup (P2H1811-BSD1)				Prepared & Analyzed: 08/18/22						
Benzene	0.0982	0.00100	mg/kg	0.100		98.2	80-120	12.1	20	
Toluene	0.0911	0.00100	"	0.100		91.1	80-120	13.5	20	
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120	11.9	20	
Xylene (p/m)	0.180	0.00200	"	0.200		90.0	80-120	12.3	20	
Xylene (o)	0.0885	0.00100	"	0.100		88.5	80-120	14.3	20	
Surrogate: 1,4-Difluorobenzene	*0.0974*		"	*0.120*		*81.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.138*		"	*0.120*		*115*	*80-120*			
Calibration Blank (P2H1811-CCB1)				Prepared & Analyzed: 08/18/22						
Benzene	0.160		ug/kg							
Toluene	0.280		"							
Ethylbenzene	0.330		"							
Xylene (p/m)	0.410		"							
Xylene (o)	0.240		"							
Surrogate: 4-Bromofluorobenzene	*0.139*		"	*0.120*		*116*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.0986*		"	*0.120*		*82.2*	*80-120*			

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2H1811 - * DEFAULT PREP *** **										
Calibration Blank (P2H1811-CCB2)				Prepared & Analyzed: 08/18/22						
Benzene	0.180		ug/kg							
Toluene	0.990		"							
Ethylbenzene	0.380		"							
Xylene (p/m)	0.800		"							
Xylene (o)	0.370		"							
Surrogate: 4-Bromofluorobenzene	*0.143*		"	*0.120*		*119*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.0976*		"	*0.120*		*81.4*	*80-120*			
Calibration Check (P2H1811-CCV1)				Prepared & Analyzed: 08/18/22						
Benzene	0.113	0.00100	mg/kg	0.102		111	80-120			
Toluene	0.105	0.00100	"	0.102		103	80-120			
Ethylbenzene	0.107	0.00100	"	0.102		105	80-120			
Xylene (p/m)	0.203	0.00200	"	0.204		99.5	80-120			
Xylene (o)	0.102	0.00100	"	0.102		100	80-120			
Surrogate: 4-Bromofluorobenzene	*0.142*		"	*0.120*		*118*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.100*		"	*0.120*		*83.7*	*75-125*			
Calibration Check (P2H1811-CCV2)				Prepared & Analyzed: 08/18/22						
Benzene	0.112	0.00100	mg/kg	0.102		110	80-120			
Toluene	0.106	0.00100	"	0.102		104	80-120			
Ethylbenzene	0.103	0.00100	"	0.102		101	80-120			
Xylene (p/m)	0.205	0.00200	"	0.204		101	80-120			
Xylene (o)	0.102	0.00100	"	0.102		100	80-120			
Surrogate: 1,4-Difluorobenzene	*0.103*		"	*0.120*		*85.8*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.147*		"	*0.120*		*123*	*75-125*			
Calibration Check (P2H1811-CCV3)				Prepared: 08/18/22 Analyzed: 08/19/22						
Benzene	0.102	0.00100	mg/kg	0.102		100	80-120			
Toluene	0.0927	0.00100	"	0.102		90.9	80-120			
Ethylbenzene	0.0919	0.00100	"	0.102		90.1	80-120			
Xylene (p/m)	0.174	0.00200	"	0.204		85.2	80-120			
Xylene (o)	0.0922	0.00100	"	0.102		90.4	80-120			
Surrogate: 4-Bromofluorobenzene	*0.160*		"	*0.120*		*133*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.0987*		"	*0.120*		*82.3*	*75-125*			

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2H1811 - * DEFAULT PREP *** **										
Matrix Spike (P2H1811-MS1)	**Source: 2H18001-01**			Prepared: 08/18/22 Analyzed: 08/19/22						
Benzene	0.0953	0.00116	mg/kg dry	0.116	ND	82.0	80-120			
Toluene	0.0866	0.00116	"	0.116	ND	74.5	80-120			QM-05
Ethylbenzene	0.0939	0.00116	"	0.116	ND	80.8	80-120			
Xylene (p/m)	0.175	0.00233	"	0.233	ND	75.0	80-120			QM-05
Xylene (o)	0.0829	0.00116	"	0.116	ND	71.3	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*0.119*		"	*0.140*		*85.1*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.195*		"	*0.140*		*140*	*80-120*			*S-GC*
Matrix Spike Dup (P2H1811-MSD1)	**Source: 2H18001-01**			Prepared: 08/18/22 Analyzed: 08/19/22						
Benzene	0.100	0.00116	mg/kg dry	0.116	ND	86.4	80-120	5.25	20	
Toluene	0.0915	0.00116	"	0.116	ND	78.7	80-120	5.50	20	QM-05
Ethylbenzene	0.100	0.00116	"	0.116	ND	86.1	80-120	6.36	20	
Xylene (p/m)	0.177	0.00233	"	0.233	ND	75.9	80-120	1.18	20	QM-05
Xylene (o)	0.0892	0.00116	"	0.116	ND	76.7	80-120	7.34	20	QM-05
Surrogate: 4-Bromofluorobenzene	*0.192*		"	*0.140*		*138*	*80-120*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.118*		"	*0.140*		*84.3*	*80-120*			

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2H1903 - * DEFAULT PREP *** **										
Blank (P2H1903-BLK1)				Prepared & Analyzed: 08/19/22						
% Moisture	ND	0.1	%							
Blank (P2H1903-BLK2)				Prepared & Analyzed: 08/19/22						
% Moisture	ND	0.1	%							
Duplicate (P2H1903-DUP1)		**Source: 2H18003-06**		Prepared & Analyzed: 08/19/22						
% Moisture	8.0	0.1	%		9.0			11.8	20	
Duplicate (P2H1903-DUP2)		**Source: 2H18003-16**		Prepared & Analyzed: 08/19/22						
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P2H1903-DUP3)		**Source: 2H18004-04**		Prepared & Analyzed: 08/19/22						
% Moisture	1.0	0.1	%		1.0			0.00	20	
Batch P2H1908 - * DEFAULT PREP *** **										
Blank (P2H1908-BLK1)				Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	ND	1.00	mg/kg							
LCS (P2H1908-BS1)				Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	21.2	1.00	mg/kg	20.0		106	90-110			
LCS Dup (P2H1908-BSD1)				Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	21.0	1.00	mg/kg	20.0		105	90-110	0.996	10	
Calibration Blank (P2H1908-CCB1)				Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	0.316		mg/kg							

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2H1908 - * DEFAULT PREP *** **										
Calibration Blank (P2H1908-CCB2)				Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	0.318		mg/kg							
Calibration Check (P2H1908-CCV1)				Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	20.9		mg/kg	20.0		105	90-110			
Calibration Check (P2H1908-CCV2)				Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	20.7		mg/kg	20.0		104	90-110			
Calibration Check (P2H1908-CCV3)				Prepared: 08/19/22 Analyzed: 08/23/22						
Chloride	21.0		mg/kg	20.0		105	90-110			
Matrix Spike (P2H1908-MS1)		**Source: 2H18001-01**		Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	829	11.6	mg/kg dry	581	244	101	80-120			
Matrix Spike (P2H1908-MS2)		**Source: 2H12025-33**		Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	1780	32.9	mg/kg dry	1640	4880	NR	80-120			QM-05
Matrix Spike Dup (P2H1908-MSD1)		**Source: 2H18001-01**		Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	821	11.6	mg/kg dry	581	244	99.4	80-120	0.958	20	
Matrix Spike Dup (P2H1908-MSD2)		**Source: 2H12025-33**		Prepared: 08/19/22 Analyzed: 08/22/22						
Chloride	1910	32.9	mg/kg dry	1640	4880	NR	80-120	7.36	20	QM-05

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2H1805 - TX 1005										
Blank (P2H1805-BLK1)				Prepared & Analyzed: 08/18/22						
C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*81.8*		"	*100*		*81.8*	*70-130*			
Surrogate: o-Terphenyl	*43.8*		"	*50.0*		*87.7*	*70-130*			
LCS (P2H1805-BS1)				Prepared & Analyzed: 08/18/22						
C6-C12	806	25.0	mg/kg	1000		80.6	75-125			
>C12-C28	812	25.0	"	1000		81.2	75-125			
Surrogate: 1-Chlorooctane	*126*		"	*100*		*126*	*70-130*			
Surrogate: o-Terphenyl	*52.8*		"	*50.0*		*106*	*70-130*			
LCS Dup (P2H1805-BSD1)				Prepared & Analyzed: 08/18/22						
C6-C12	861	25.0	mg/kg	1000		86.1	75-125	6.54	20	
>C12-C28	866	25.0	"	1000		86.6	75-125	6.42	20	
Surrogate: 1-Chlorooctane	*121*		"	*100*		*121*	*70-130*			
Surrogate: o-Terphenyl	*49.1*		"	*50.0*		*98.3*	*70-130*			
Calibration Check (P2H1805-CCV1)				Prepared & Analyzed: 08/18/22						
C6-C12	466	25.0	mg/kg	500		93.3	85-115			
>C12-C28	487	25.0	"	500		97.5	85-115			
Surrogate: 1-Chlorooctane	*105*		"	*100*		*105*	*70-130*			
Surrogate: o-Terphenyl	*47.6*		"	*50.0*		*95.1*	*70-130*			
Matrix Spike (P2H1805-MS1)	**Source: 2H18004-04**			Prepared & Analyzed: 08/18/22						
C6-C12	875	25.3	mg/kg dry	1010	ND	86.7	75-125			
>C12-C28	871	25.3	"	1010	10.1	85.2	75-125			
Surrogate: 1-Chlorooctane	*125*		"	*101*		*124*	*70-130*			
Surrogate: o-Terphenyl	*48.7*		"	*50.5*		*96.4*	*70-130*			

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2H1805 - TX 1005										
Matrix Spike Dup (P2H1805-MSD1)	**Source: 2H18004-04**			Prepared & Analyzed: 08/18/22						
C6-C12	867	25.3	mg/kg dry	1010	ND	85.8	75-125	1.01	20	
>C12-C28	854	25.3	"	1010	10.1	83.5	75-125	2.04	20	
Surrogate: 1-Chlorooctane	*121*		*"*	*101*		*120*	*70-130*			
Surrogate: o-Terphenyl	*46.6*		*"*	*50.5*		*92.2*	*70-130*			

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
NPBEL C(	Chain of Custody was not generated at PBELAB
BULK	Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 8/23/2022

Brent Barron, Laboratory Director/Technical Director

Larson & Associates, Inc.	Project: Skeen 23 CTB
P.O. Box 50685	Project Number: 20-0107-09
Midland TX, 79710	Project Manager: Mark Larson

L ID

№ 1898

CHAIN-OF-CUSTOD

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

DATE: 8/18/2022 PAGE 1 OF 1

PO#: _____ LAB WORK ORDER#: 2H18001

PROJECT LOCATION OR NAME: Skeen 23 CTB

LAI PROJECT #: 20-0107-09 COLLECTOR: JH

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST/NM

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

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

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	BTEX ☐ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐	TPH 1006 ☐	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐	HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐	TCLP VOC ☐	TCLP - PEST ☐	HERB ☐	Semi-VOC ☐	TOTAL METALS (RCRA) ☐	OTHER LIST ☐	LEAD - TOTAL ☐	D.W. 200.8 ☐	TCLP ☐	RCI ☐	TOX ☐	FLASHPOINT ☐	TDS ☐	TSS ☐	% MOISTURE ☐	pH ☐	HEXAVALENT CHROMIUM ☐	CYANIDE ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
C-15, 3'	1	8/17/22	1200	S	1				X		X				X	X	X																									X		
C-16, 5'	2	"	1300	"	"				"		"				"	"	"																									"		
C-19, 2'	3	"	1000	"	"				"		"				"	"	"																									"		
C-20, 3'	4	"	1100	"	"				"		"				"	"	"																									"		

TOTAL 4

RELINQUISHED BY:(Signature) Brenda Ballard DATE/TIME 8/18 8:35 RECEIVED BY: (Signature)

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

RELINQUISHED BY:(Signature) DATE/TIME 8/18 8:36 RECEIVED BY: (Signature) Mr Haddock

LABORATORY: PBEL

TURN AROUND TIME

NORMAL ☐

1 DAY ☒ Rush!

2 DAY ☐

OTHER ☐

LABORATORY USE ONLY:

RECEIVING TEMP: 1.8 adjust 2.8 THERM#: L1 CF+1

CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED

☐ CARRIER BILL # _____

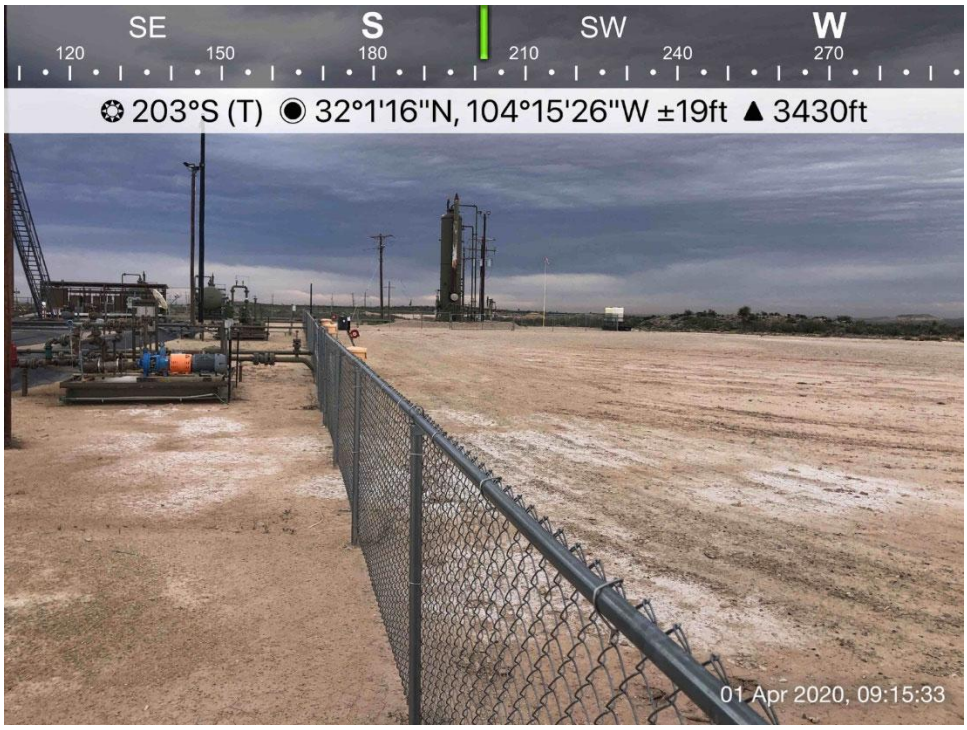
☐ HAND DELIVERED

Appendix E

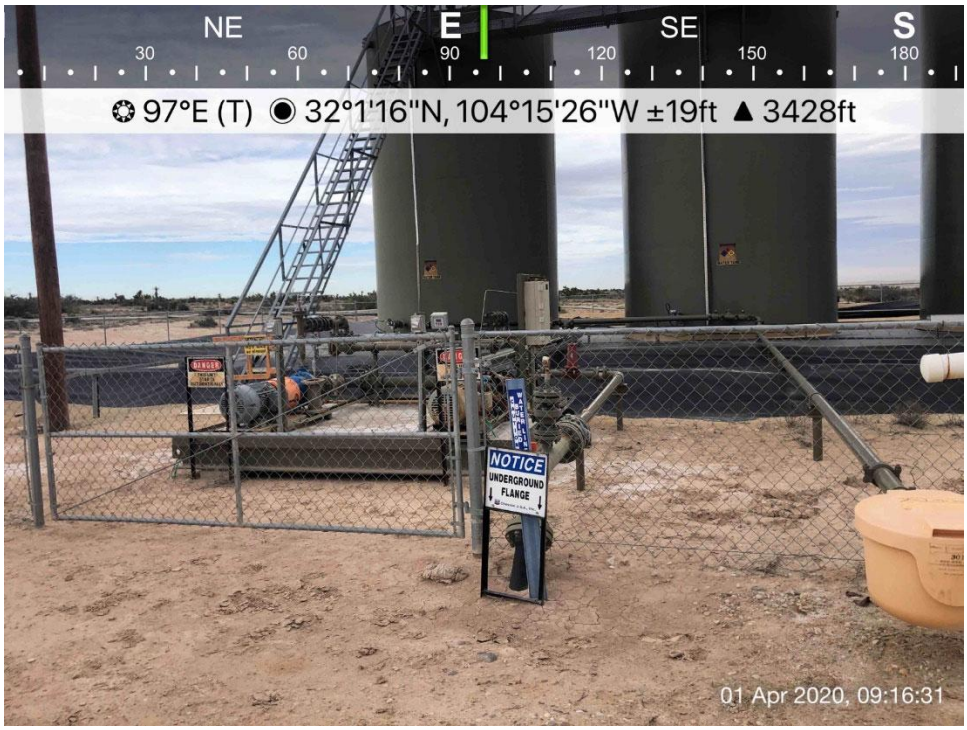
Photographic Documentation

Lease sign at Skeen 23 CTB in Eddy County, New Mexico, viewing to the northeast.

Chloride precipitate related to produced water release, viewing to the north.



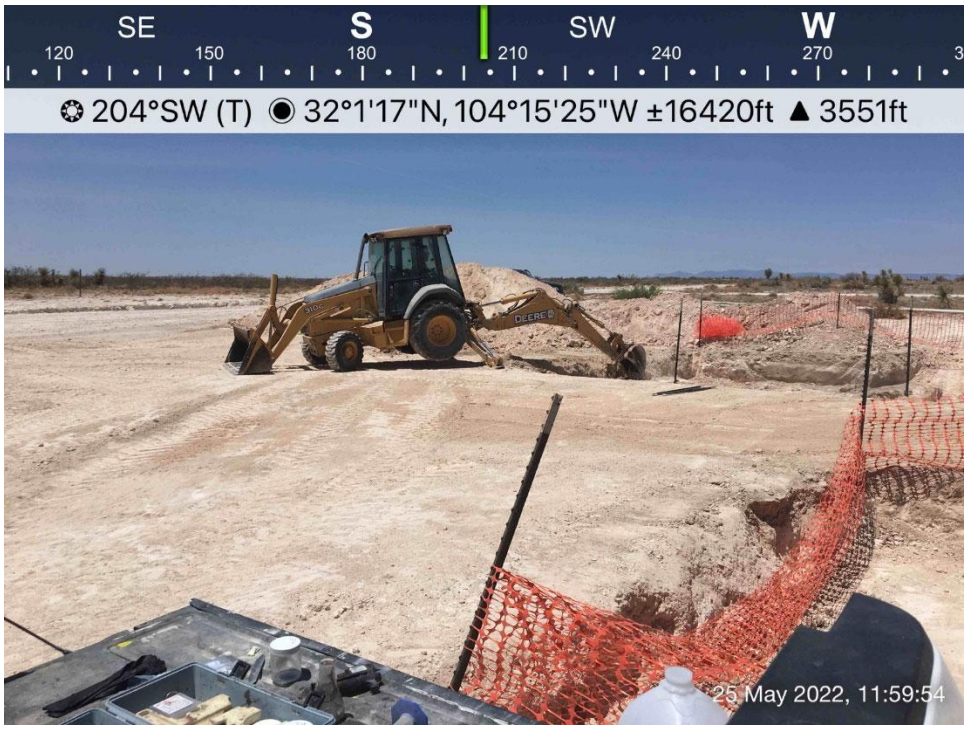
Chloride precipitate related to produced water release, viewing to the south.



Chloride precipitate related to produced water release, viewing to the east.

Chloride precipitate related to produced water release, viewing to the northeast.

Excavated area near load lines, viewing to the northeast.



Excavated area on production pad, viewing to the southwest.

Excavated area on production pad, around load lines, viewing to the west.

Excavated area inside of fenced area, viewing to the east.

Excavated area inside of fenced area, viewing to the south.

Excavated area inside of fenced area, viewing to the east.

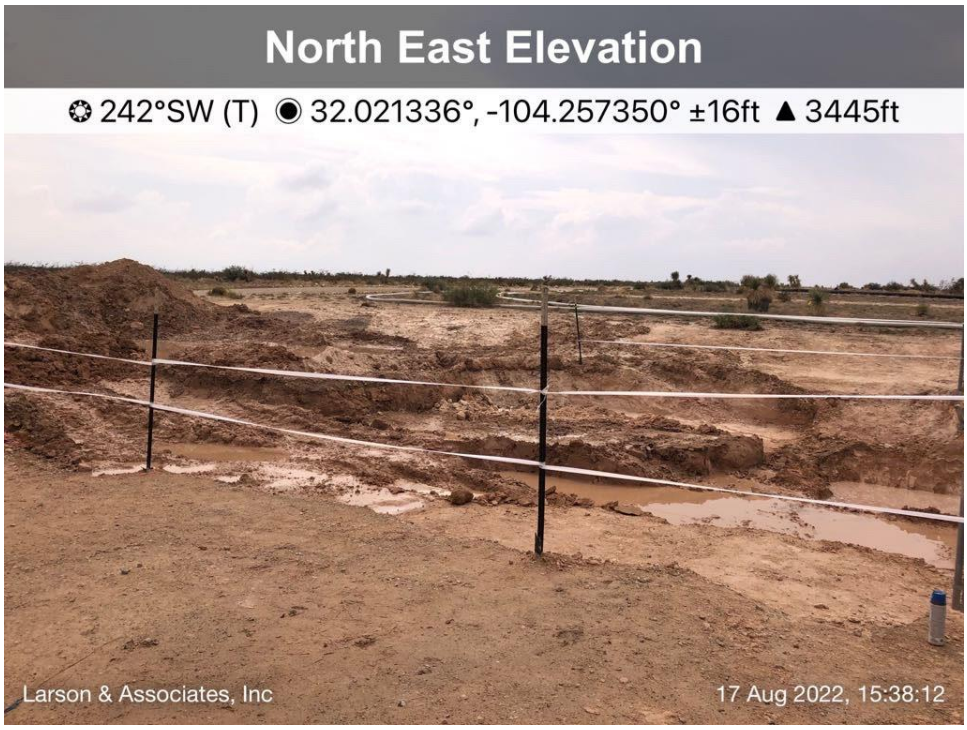
Excavated area on production pad and fenced area, viewing to the southeast.

Excavated area on production pad, viewing to the southwest.

Excavated area on production pad, viewing to the west.

Excavated area on production pad, viewing to the northwest.

Excavated area on production pad, viewing to the northwest.



Excavated area on production pad, viewing to the southwest.

Excavated area on production pad, viewing to the northeast.

Excavated area on production pad, viewing to the southeast.

Backfilled excavation on pad, viewing to the northwest.

Backfilled excavation on production pad, viewing to the west.

Backfilled excavation on production pad, viewing to the north.

Backfilled excavation on production pad, viewing to the north.

Backfilled excavation on production pad, viewing to the northeast.

Backfilled excavation on production pad, viewing to the southeast.

Backfilled exaction on production pad, viewing to the east.

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

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

CONDITIONS

Action 145474

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 145474
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NRM2009061396 SKEEN 23 CTB, thank you. This closure is approved.	12/14/2022