Tracking Number: nAPP2202552560
REMEDIATION AND CLOSURE REPORT
Gravitas SWD
Produced Water Release
Eddy County, New Mexico

Latitude: N 32.06595°
Longitude: W -104.16500°

LAI Project No. 22-0105-03

April 26, 2024

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Table of Contents

1.0 INTRODUCTION 1
1.1 Background 1
1.2 Physical Setting 1
1.3 Remediation Levels 1
2.0 DELINEATION 2
3.0 REMEDIATION 2
4.0 RECLAMATION 4
5.0 DEFERRAL 4

Tables

Table 1 Delineation Analytical Data Summary
Table 2 Confirmation/Backfill/Deferral Analytical Data Summary

Figures

Figure 1 Topographic Map
Figure 2 Aerial Map with Spill Area and Soil Sample Locations
Figure 3 Aerial Map Depicting Groundwater Bore Location
Figure 4 Aerial Map with Excavation Areas and Confirmation Sample Locations
Figure 5 Aerial Map Showing NMOCD Deferral Sample Locations
Figure 6 Aerial Map Showing Deferral Areas

Appendices

Appendix A Initial C-141 and Spill Calculation
Appendix B Karst Risk Potential Map
Appendix C Soil Boring Log
Appendix D NMOCD Communications
Appendix E Laboratory Reports
Appendix F Photographic Documentation

1.0 INTRODUCTION

Larson & Associates, Inc. (LAI) has prepared this remediation and 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 Gravitas SWD (Site) located in Unit N (SE/4 of SW/4), Section 2, Township 26 South, Range 27 East in Eddy County, New Mexico. The geodetic position is North 32.06595° and West -104.16500°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The release was discovered on January 23, 2022, and was result of two (2) pinhole leaks in a ball valve, resulting in approximately 15.44 barrels (bbls) of produced water to be released onto the pad. No fluid was recovered. The release covered an area of about 967 square feet. The initial C-141 and spill calculation were received by the NMOCD on January 25, 2022, and assigned incident number nAPP2202552560. Appendix A presents the initial C-141 and spill calculation.

1.2 Physical Setting

The physical setting is as follows:

- Surface elevation is approximately 3,212 feet above mean sea level (msl).
- Surface topography slopes gently towards the northeast.
- No surface water features are located within 1,000 feet of the site.
- USGS karst occurrence potential data designates the area as “high” risk potential.
- Soils are predominantly Reeves-Reagan loams, where the typical Reeves profile consists of 0 to 8 inches of loam underlain by 8 to 32 inches of clay loam, and 32 to 60 inches of gypsiferous material; and where the typical Reagan profile consists of 0 to 30 inches of loam, underlain by 30 to 82 inches of clay loam.
- The surface geology is the Upper Permian Rustler Formation, consisting of siltstone, gypsum, sandstone, and dolomite.
- Groundwater occurs at approximately 25.25 feet below ground surface (bgs) based on a groundwater bore (BH-1) drilled on April 29, 2020, and located about 0.38 miles northeast of the Site.

Figure 3 presents an aerial map depicting the groundwater bore location. Appendix B presents the karst risk potential map. Appendix C presents the soil boring log.

1.3 Remediation Standards

The following remediation standards are based on closure criteria for soils impacted by a 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

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

2.0 DELINEATION

The release was delineated between May 5, 2021, and November 11, 2021. The delineation was reported to the NMOCD in the document titled "*Tracking Number: nAPP220552560, Delineation Report and Remediation Plan, Gravitas SWD, Produced Water Release, May 12, 2022*", and recommended the following remediation:

- Excavate soil from an area measuring approximately 691 square feet encompassing S-1, S-4, S-6, and S-9 to a depth of 1-foot bgs.
- Excavate soil from an area measuring approximately 147 square feet encompassing S-12 to a depth of 2 feet bgs.
- Excavate soil from an area measuring approximately 458 square feet encompassing S-2 and S-5 to a depth of 3 feet bgs.
- Excavate soil from an area measuring approximately 457 square feet encompassing S-3 to a depth of 4.5 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 clean caliche assuming achievement of OCD remediation levels.
- Prepare closure report with photographs for submittal to OCD District II.

The NMOCD approved the report and remediation plan on August 30, 2022. Table 1 presents the delineation sample analytical summary. Figure 2 presents an aerial map with the spill area and soil sample locations. Appendix D presents NMOCD communications.

3.0 REMEDIATION

Between October 2022 and February 2023, SDR Enterprises (SDR), under supervision of LAI personnel, used hand tools and mechanical equipment to excavate soil around equipment and lines per the approved NMOCD remediation plan. Approximately 160 cubic yards was stockpiled on a liner adjacent to the excavated areas prior to being hauled to the R360 Red Bluff disposal facility located approximately 13 miles northwest of Orla, Texas. LAI personnel collected twenty-two (22) bottom (C-1 through C-11) and sidewall (SW-1 through SW-11) confirmation soil samples from within the excavated areas. The samples were delivered under chain of custody (COC) and preservation to Eurofins-Xenco Laboratories (Xenco) in Midland, Texas. The samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), total petroleum hydrocarbons (TPH), including gasoline range organics (C6 – C12), diesel range organics (>C12 – C28), and oil range organics (>C28 – C35), and chloride by EPA SW-846 Methods 8021B and 8015M, and 300.0E, respectively.

Laboratory analysis reported benzene, BTEX, and TPH below the NMOCD remediation action levels in all confirmation soil samples. Chloride was reported above the NMOCD remediation standard (600 mg/Kg) in the following samples:

Sample ID	Location	Depth	Chloride Concentration (mg/Kg)
C-3	Bottom	3	1,450
C-4	Bottom	3	1,930
C-6	Bottom	4.5	1,290
C-7	Bottom	1	7,670

C-8	Bottom	3	3,930
C-9	Bottom	1	8,670
C-11	Bottom	4	1,140
C-16	Bottom	1	959
SW-1	Sidewall	0 – 1	1,430
SW-2	Sidewall	0 – 1	1,400
SW-3	Sidewall	0 – 3	10,000
SW-4	Sidewall	0 – 3	32,500
SW-5	Sidewall	0 – 4.5	5,410
SW-6	Sidewall	0 – 4.5	13,400
SW-7	Sidewall	0 – 1	6,570
SW-8	Sidewall	0 – 3	1,240
SW-9	Sidewall	0 – 1	2,650
SW-10	Sidewall	0 – 2	2,780

Between August and October 2023, Warrior Technologies, LLC (Warrior), under supervision from LAI personnel, used a hydrovac to excavate additional soil encompassing the above-mentioned bottom and sidewall confirmation soil samples. As additional soil was removed, five (5) bottom (C-12 through C-16) and two (2) sidewalls (SW-9A and SW-12) were collected. Sidewall sample location SW-9A was added to account for a portion of the sidewall encompassing SW-9 where further excavation was possible and away from pumps and pipe supports. Additional soil was not removed from sample locations C-6, C-7, C-8, C-9, and SW-8 due to locations of pumps and pipe supports, which would risk jeopardizing the integrity of the above ground horizontal (H) pumps and pipe supports.

Subsequent laboratory analysis reported one (1) bottom (C-16) and two (2) sidewall (SW-3 and SW-5) sample locations above the NMOCD closure criteria for chloride at 959 mg/Kg, 672 mg/Kg and 679 mg/Kg, respectively. During November 2023, Warrior hydrovac excavated an additional one (1) foot encompassing sample location C-16 to a depth of two (2) feet bgs. Laboratory analysis reported the sample location to be below the NMCOD closure criteria for chloride.

On January 9, 2024, a variance was requested from the NMOCD requesting approval to install a 20-mil polyethylene liner in the bottom of the excavation encompassing sample locations C-6 through C-9, due to safety concerns related to removing additional soil. Also, a deferral was requested from the NMOCD for sidewall sample locations SW-3, SW-5, SW-8, and SW-9, due to the sample locations being located adjacent to pipe supports and the above ground H-pumps. On January 10, 2024, LAI received notification from the NMOCD (Nelson Velez) regarding a modification to the variance and deferral request *"…in order to meet the vertical and horizontal delineation. Once completed, Chevron made [sic] wish to defer the soil impacts which resides beneath the surface equipment until the site has been plugged and abandoned…."*.

On February 2 and 5, 2024, LAI personnel used a stainless-steel hand auger to collect additional vertical and horizontal delineation soil samples to support the deferral request. The hand auger was thoroughly decontaminated between sample locations with a solution of Alconox® and potable water. Two (2) vertical delineation soil sample locations (D-5 and D-6) were collected to a depth of 9 to 10 feet bgs and 6.5 to 7.5 feet bgs, respectively. Also, five (5) horizontal delineation soil sample locations (D-1 through D-4 and D-7) were collected at 0 to 1-foot bgs. On March 11, 2024, an email was submitted to NMOCD

(Nelson Velez) regarding the sample analysis and requested a deferral for sample locations C-6 through C-9, SW-3, SW-5, SW-8, and SW-9 until Site abandonment. Figure 5 presents an aerial map showing the NMOCD deferral sample locations. Figure 6 presents an aerial map showing the deferral areas. Appendix D presents the NMOCD communications.

4.0 RECLAMATION

On March 1, 2023, LAI personnel collected two (2) composite soil samples of backfill material (BF-1 and BF-2) from a borrow pit in Unit N, Section 2, Township 26 South, Range 27 East, in Eddy County, New Mexico. Xenco analyzed the samples for BTEX, TPH and chloride, and reported that all parameters were below NMOCD requirements outlined in NMAC 19.25.29.13D(1). BTEX and TPH were below analytical reporting limits. Chloride was reported at 588 mg/Kg and 74.5 mg/Kg in samples BF-1 and BF-2, respectively. Table 3 presents the backfill sample analytical data summary. Appendix E presents the laboratory reports.

During April 2024 the remaining contaminated soil stockpiled on Site was hauled to the R360 Red Bluff disposal facility and the excavations were backfilled with caliche from the borrow pit. The pad was grated, watered, and compacted to resemble surface conditions prior to remediation. Appendix F presents photographic documentation.

5.0 DEFERRAL

On March 11, 2024, LAI received notification from the NMOCD (Nelson Velez) regarding the deferral request submitted. Mr. Velez stated "*…Your deferral on behalf of Chevron requesting approval from the NMOCD for sample location C-6 through C-9, SW-3, SW-5, SW-8, and SW-9, until decommissioning of the Site upon abandonment is approved. Please submit formally through OCD Permitting Portal. Please keep a copy of this communication for inclusion within the appropriate report submittal.*"

Tables

Table 1
Soil Sample Analytical Data Summary
Chevron - Gravitas SWD
Eddy County, New Mexico
32° 03' 57.44" N, 104° 09' 54.03" W

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)
Delineation Limit:				**10**	**50**				**100**	**600**
S-1	0.5	2/8/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**15,900**
	1	2/8/2022	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	307
	2	2/8/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	73.8
	3	2/8/2022	In-Situ	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	54.6
	4.5	2/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	20.7
S-2	0.5	2/8/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	**7,010**
	1	2/8/2022	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	**6,600**
	2	2/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**1,600**
	3	2/8/2022	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	355
	4.5	2/8/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	137
S-3	0.5	2/8/2022	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	**6,580**
	1	2/8/2022	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	**8,020**
	2	2/8/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**7,370**
	3	2/8/2022	In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	**1,520**
	4.5	2/8/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	111
S-4	0.5	2/8/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	**8,900**
	1	2/8/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	556
	2	2/8/2022	In-Situ	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	432
	3	2/8/2022	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	337
	4.5	2/8/2022	In-Situ	<0.00201	<0.00402	<49.8	<49.8	63.4	63	177
S-5	0.5	2/8/2022	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	**5,360**
	1	2/8/2022	In-Situ	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	**831**
	2	2/8/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**696**
	3	2/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	191
	4.5	2/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	196

Table 1
Soil Sample Analytical Data Summary
Chevron - Gravitas SWD
Eddy County, New Mexico
32° 03' 57.44" N, 104° 09' 54.03" W

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)
Delineation Limit:				**10**	**50**				**100**	**600**
S-6	0.5	2/8/2022	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	**790**
	1	2/8/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	34.5
S-7	0.5	2/8/2022	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	6.63
	1	2/8/2022	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	6.29
S-8	0.5	2/8/2022	In-Situ	<0.0200	<0.00399	<50.0	<50.0	<50.0	<50.0	**2,990**
	1	2/8/2022	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	**3,540**
	1	3/7/2022	In-Situ	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	**2,810**
	3	3/7/2022	In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	**810**
	5	3/7/2022	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	23.5
	10	3/7/2022	In-Situ	<0.00202	<0.00404	<49.8	<49.8	<49.8	<49.8	73.0
S-9	0.5	2/8/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	28.1
	1	2/8/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	**2,410**
	1	3/7/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	36.3
	3	3/7/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	5.21
	5	3/7/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<5.01
	10	3/7/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<4.98
S-10	0.5	3/7/2022	In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	17.9
	1	3/7/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	30.2
S-11	0.5	3/7/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	35.6
	1	3/7/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	40.6
S-12	0.5	3/7/2022	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	217
	1	3/7/2022	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	**1,140**
	2	4/20/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	292
S-13	0 - 1	4/20/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	188

Notes: Analysis performed byand Xenco Laboratories in Midland, Texas by EPA SW-846 8021B (BTEX), 8015M (TPH), and 300E (Chloride)
Depth in feet below ground surface (bgs)

Table 1

Soil Sample Analytical Data Summary

Chevron - Gravitas SWD

Eddy County, New Mexico

32° 03' 57.44" N, 104° 09' 54.03" W

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)
Delineation Limit:				**10**	**50**				**100**	**600**

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

<: denotes concentration less than analytical method reporting limit

Bold and Highlighted exceeds OCD remediation action limits

Table 2
Confirmation Soil Sample Analytical Data Summary
Chevron - Gravitas SWD
Eddy County, New Mexico
32° 03' 57.44" N, 104° 09' 54.03" W

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)
Closure Criteria:					***10***	***50***				***100***	***600***
C-1	Bottom	1	10/24/22	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	14.2
C-2	Bottom	1	10/25/22	In-Situ	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	37.2
C-3	Bottom	3	01/23/23	Excavated	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**1,450**
	Bottom	4.5	08/29/23	In-Situ	<0.00201	<0.00402	<50.3	<50.3	<50.3	<50.3	227
C-4	Bottom	3	01/23/23	Excavated	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**1,930**
	Bottom	4.5	08/29/23	In-Situ	<0.00200	<0.00401	<50.1	<50.1	<50.1	<50.1	153
C-5	Bottom	4.5	02/02/23	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	403
C-6	Bottom	4.5	02/02/23	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**1,290**
C-7	Bottom	1	02/13/23	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	**7,670**
C-8	Bottom	3	02/13/23	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**3,930**
C-9	Bottom	1	02/23/23	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	**8,670**
C-10	Bottom	2	02/23/23	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	316
C-11	Bottom	4	02/24/23	Excavated	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	**1,140**
	Bottom	5	09/19/23	Excavated	<0.00202	<0.00403	<50.1	<50.1	<50.1	<50.1	**6,910**
	Bottom	7	10/16/23	In-Situ	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	77.3
C-12	Bottom	1	08/30/23	In-Situ	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	272
C-13	Bottom	1	08/30/23	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	464
C-14	Bottom	1	08/30/23	In-Situ	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	58.0
C-15	Bottom	4.5	08/30/23	In-Situ	<0.00202	<0.00404	<49.7	<49.7	<49.7	<49.7	76.2
C-16	Bottom	1	08/30/23	Excavated	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	**959**
	Bottom	2	11/16/23	In-Situ	<0.00200	<0.00401	<50.3	<50.3	<50.3	<50.3	68.2
SW-1	Sidewall	0-1	10/24/22	Excavated	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	**1,430**
	Sidewall	0-1	08/30/23	In-Situ	<0.00198	<0.00396	<50.5	<50.5	<50.5	<50.5	353
SW-2	Sidewall	0-1	10/25/22	Excavated	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	**1,400**
	Sidewall	0-1	08/29/23	Excavated	<0.00200	<0.00399	<50.1	<50.1	<50.1	<50.1	**875**
	Sidewall	0-1	10/17/23	In-Situ	<0.00200	<0.00400	<49.6	<49.6	<49.6	<49.6	126
SW-3	Sidewall	0-3	01/23/23	Excavated	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	**10,000**
	Sidewall	0-4.1	10/16/23	In-Situ	<0.00202	<0.00404	<50.3	<50.3	<50.3	<50.3	**672**
SW-4	Sidewall	0-3	01/23/23	Excavated	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	**32,500**
	Sidewall	0-4.1	10/16/23	In-Situ	<0.00200	<0.00400	<50.5	<50.5	<50.5	<50.5	459
SW-5	Sidewall	0-4.5	02/02/23	Excavated	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**5,410**
	Sidewall	0-4.5	10/16/23	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**679**

Table 2
Confirmation Soil Sample Analytical Data Summary
Chevron - Gravitas SWD
Eddy County, New Mexico
32° 03' 57.44" N, 104° 09' 54.03" W

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)
Closure Criteria:					***10***	***50***				***100***	***600***
SW-6	Sidewall	0-4.5	02/02/23	Excavated	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	**13,400**
	Sidewall	0-4.5	10/16/23	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	130
SW-7	Sidewall	0-1	02/13/23	Excavated	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**6,570**
	Sidewall	0-1	08/30/23	In-Situ	<0.00199	<0.00398	<50.3	<50.3	<50.3	<50.3	408
SW-8	Sidewall	0-3	02/13/23	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**1,240**
SW-9	Sidewall	0-1	02/23/23	Excavated	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**2,650**
SW-9A	Sidewall	0-1	08/29/23	Excavated	<0.00198	<0.00396	<49.6	<49.6	<49.6	<49.6	**1,440**
	Sidewall	0-1	10/17/23	In-Situ	<0.00201	<0.00402	<49.6	<49.6	<49.6	<49.6	55.0
SW-10	Sidewall	0-2	02/22/23	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**2,780**
	Sidewall	0-2	09/19/23	Excavated	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	**3,000**
	Sidewall	0-2	10/16/23	In-Situ	<0.00199	<0.00397	<49.6	<49.6	<49.6	<49.6	138
SW-11	Sidewall	0-4	02/24/23	In-Situ	<0.00203	<0.00405	<50.0	<50.0	<50.0	<50.0	74.6
SW-12	Sidewall	0-4.5	08/29/23	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	129
Backfill Samples											
BF-1	--	--	3/1/2023	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	588
BF-2	--	--	3/1/2023	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	74.5
Deferral Samples											
D-1	--	0-1	2/5/2024	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	97.2
D-2	--	0-1	2/2/2024	In-Situ	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	200
D-3	--	0-1	2/2/2024	In-Situ	<0.00198	<0.00396	<50.4	<50.4	<50.4	<50.4	111
D-4	--	0-1	2/2/2024	In-Situ	<0.00200	<0.00400	<50.5	<50.5	<50.5	<50.5	155
D-5	--	3-4	2/2/2024	In-Situ	<0.00202	<0.00403	<50.1	<50.4	<50.1	<50.1	**8,900**
		4-5	2/2/2024	In-Situ	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	**8,000**
		5-6	2/2/2024	In-Situ	<0.00200	<0.00400	<50.5	<50.5	<50.5	<50.5	**6,060**
		6-7	2/2/2024	In-Situ	<0.00200	<0.00400	<49.7	<49.7	<49.7	<49.7	**6,000**

Table 2
Confirmation Soil Sample Analytical Data Summary
Chevron - Gravitas SWD
Eddy County, New Mexico
32° 03' 57.44" N, 104° 09' 54.03" W

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)
Closure Criteria:					***10***	***50***				***100***	***600***
		7-8	2/2/2024	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	**1,550**
		8-9	2/2/2024	In-Situ	<0.00201	<0.00402	<50.1	<50.1	<50.1	<50.1	**7,590**
		9-10	2/2/2024	In-Situ	<0.00202	<0.00403	<50.3	<50.3	<50.3	<50.3	502
D-6	--	5.5-6.5	2/5/2024	In-Situ	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	208
		6.5-7.5	2/5/2024	In-Situ	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	184
D-7	--	0-1	2/5/2024	In-Situ	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	137

Notes:

Analysis performed by Eurofins-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 is below analytical reporting limit
Bold and highlighted indicates parameter is above closure criteria
Bold and Highlighted indictaes locations where a deferral is requested

Figures

Page 16 of 472

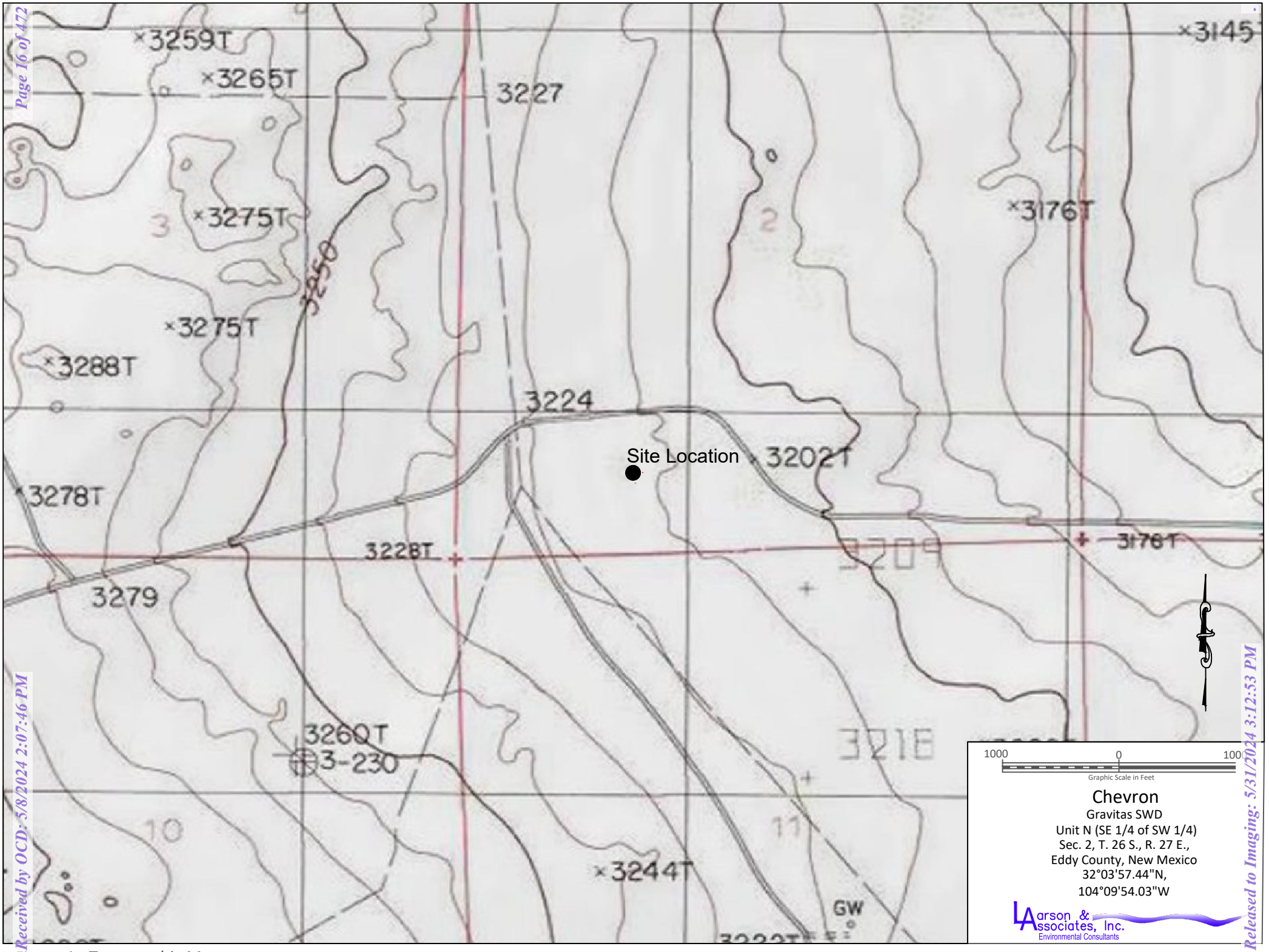

Figure 1 - Topographic Map

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

Page 17 of 472

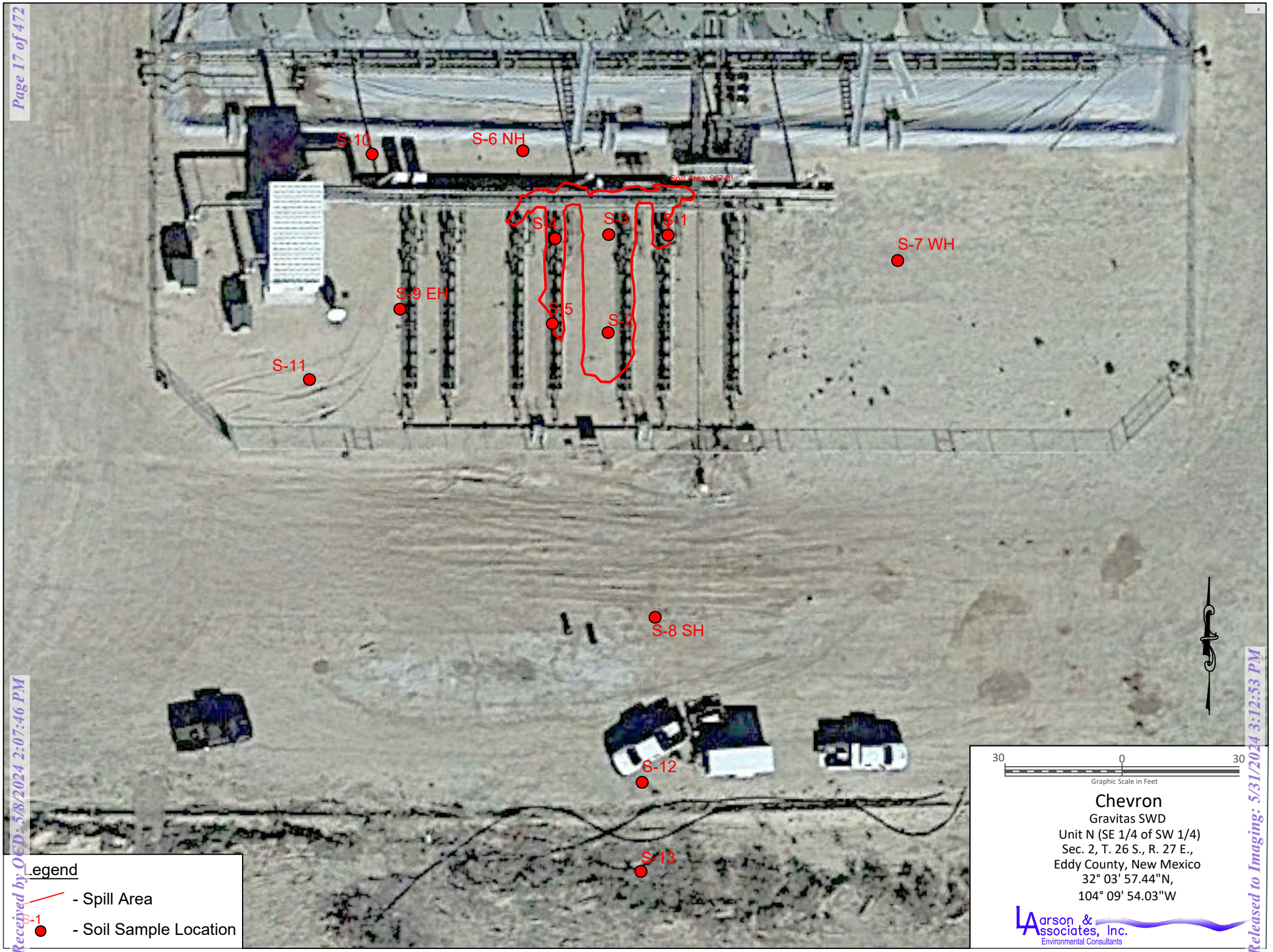

Figure 2 - Aerial Map with Spill Area and Soil Sample Locations

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Released to Imaging: 5/31/2024 3:12:53 PM

Page 18 of 472

Figure 3 - Aerial Map Depiciting Groundwater Bore Location

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

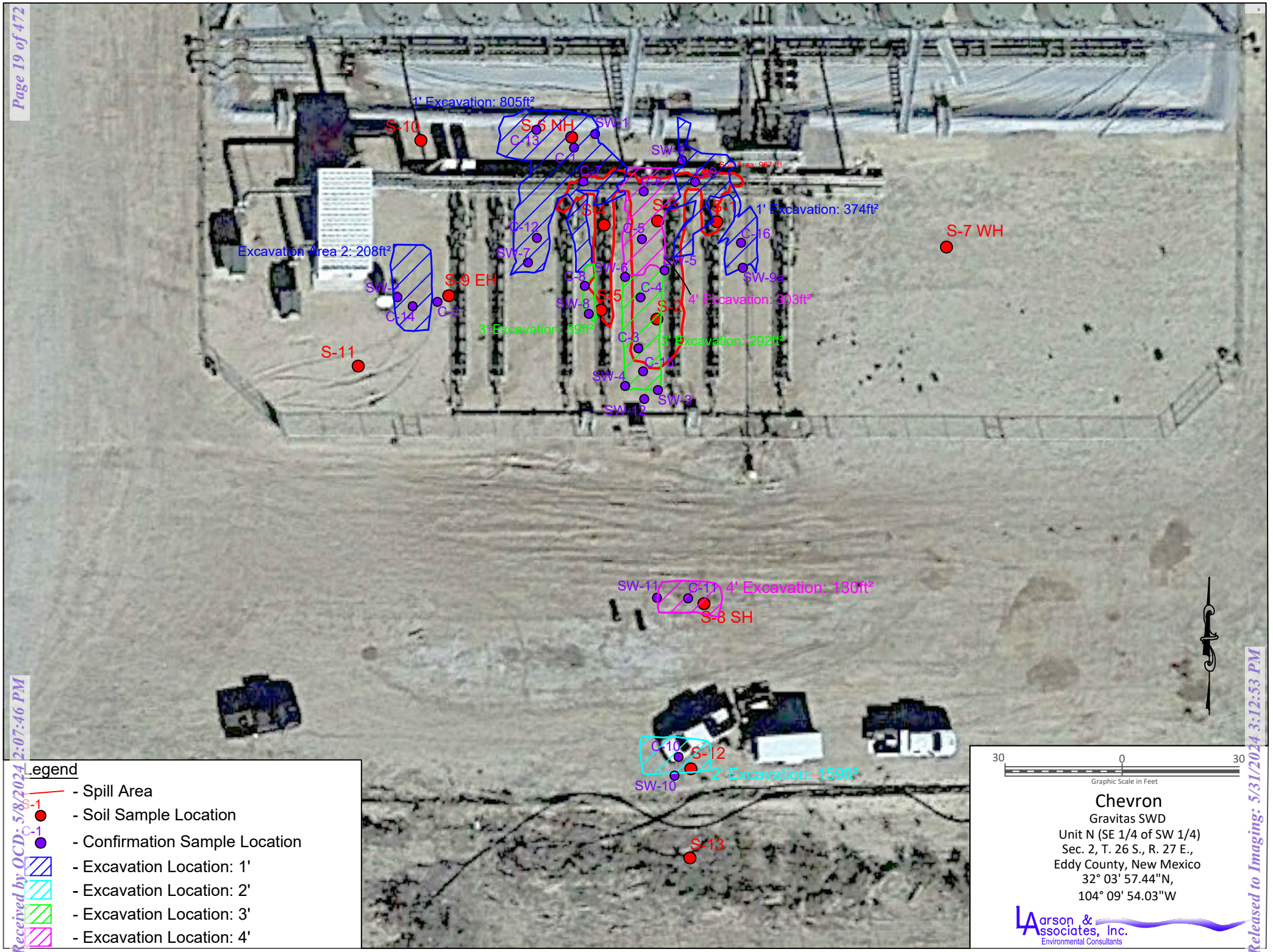

Figure 4 - Aerial Map with Excavation Areas and Confirmation Sample Locations

Received by OCD: 5/8/2024 2:07:46 PM
Released to Imaging: 5/31/2024 3:12:53 PM

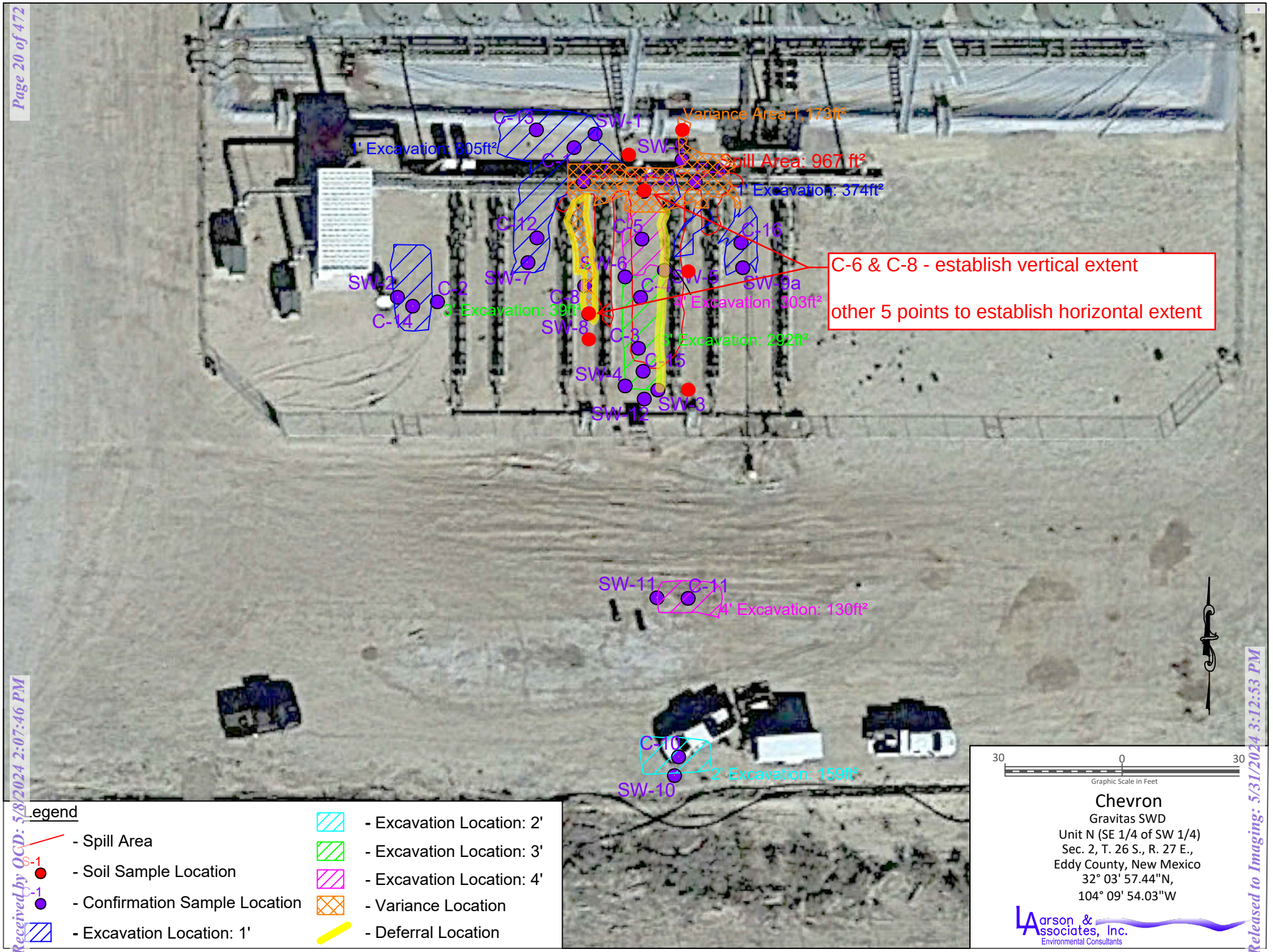

Figure 5 - Aerial Map Showing NMOCD Deferral Sample Locations

Received by OCD: 5/8/2024 2:07:46 PM
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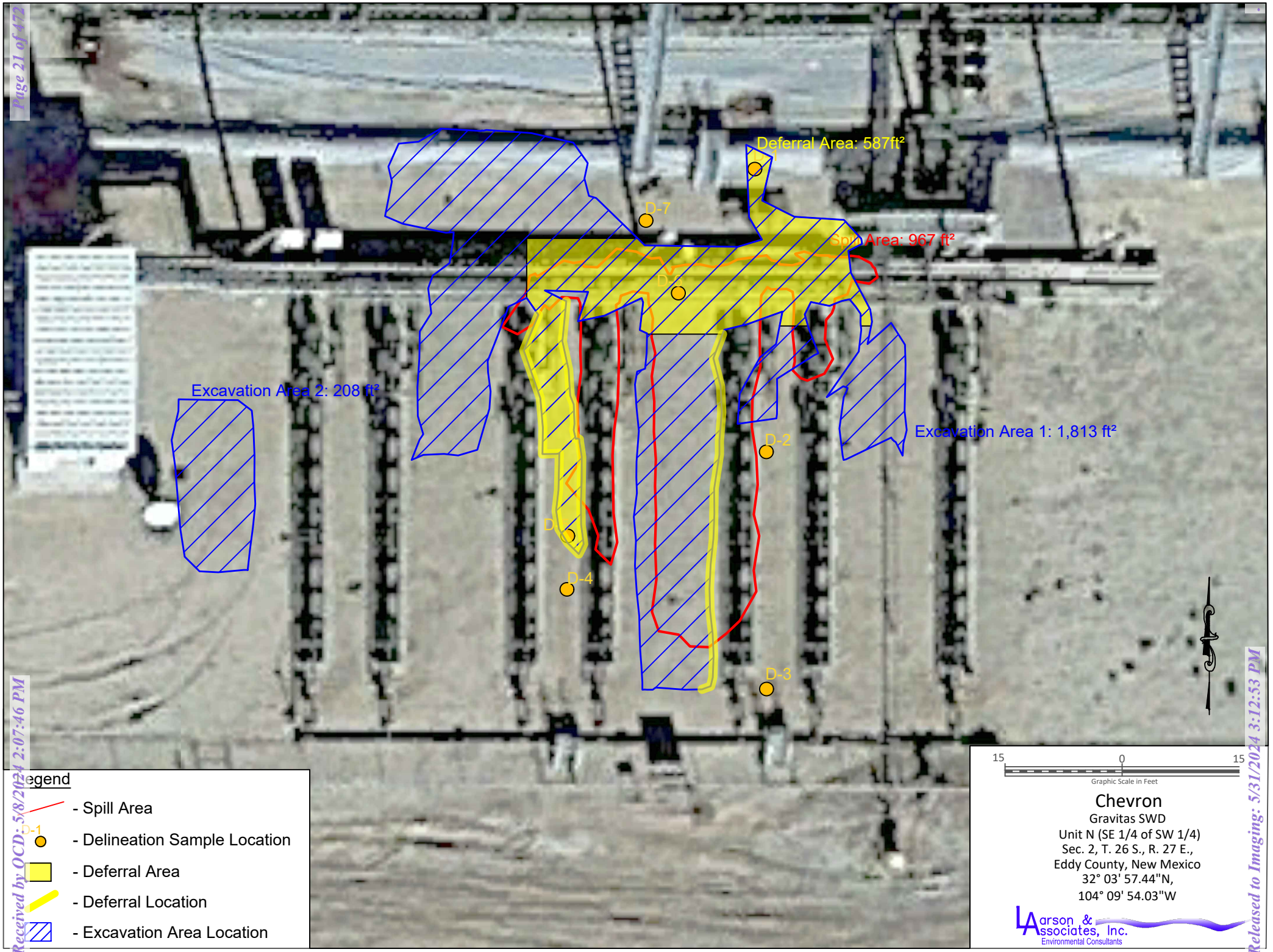
Page 21 of 472



Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

Figure 6 - Aerial Map Showing Deferral Areas

Appendix A

Initial C-141 and 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	nAPP2202552560
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Chevron USA	OGRID: 4323
Contact Name: Amy Barnhill	Contact Telephone: 432-687-7108
Contact email: ABarnhill@chevron.com	Incident # *(assigned by OCD)*
Contact mailing address: 6301 Deauville Blvd Midland, Tx 79706	

Location of Release Source

Latitude 32.07823215 Longitude -104.15711932
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Gravitas SWD 2	Site Type: Produced Water
Date Release Discovered: 1-23-22	API# *(if applicable):*

Unit Letter	Section	Township	Range	County
B	2	26S	27E	Eddy

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) 15.44	Volume Recovered (bbls)
	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: The ball valve had 2 pinhole leaks on the bottom.		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2202552560
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.

Printed Name: Amy Barnhill Title: Water Specialist

Signature: Amy Barnhill Date: 1-25-22

email: ABarnhill@chevron.com Telephone: 432-687-7108

OCD Only

Received by: Date:

Incident ID	nAPP2202552560
District RP	
Facility ID	
Application ID	

Spill Calculations:

Area 1
Shape: Rectangle
Secondary Containment?: No
Standing Liquid Dimensions: 40 ft x 20 ft x 1 in
Standing Liquid Volume: 13.655 bbl
Water Cut: 100%
Oil Volume:.000 bbl
Penetration Depth: 1 in
Water to Soil Volume: 1.781 bbl
Water Volume: 15.436 bbl

Appendix B

Karst Risk Potential

Gravitas SWD
High
Medium

Appendix C

Soil Boring Log

BORING RECORD

Start: 11:30
Finish: 12:30

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG
	0	Silty Sand, 7.5YR 8/2, Pinkish White, Rounded, Fine Grained, Poorly Sorted, Subangular, 0.5-2cm Clast Inclusions	ML	
	5	Caliche, 7.5YR 8/1, White, Rounded, Poorly Sorted, Medium Grained, Subangular, 0.5-1cm Diameter Clast Inclusions	Caliche	
	10			
	15	Silty Sand, 7.5YR 6/6, Reddish Yellow, Rounded, Fine Grained, Poorly Sorted, Subangular, 0.5-1cm Diameter Clast Inclusions 7.5YR 6/8, Reddish Yellow, Subangular, 0.5-2.5cm Diameter Clast Inclusions	ML	
Depth to Water: 25.25	20			
	25	Quartz Sand, 2.5YR 8/2, Pinkish White, Fine Grained, Rounded, Poorly Sorted, Subangular, 0.5-2cm Diameter Clast Inclusions	SM	
	30			
	35			
	40	Quartz Sand, Very Fine Grained, Well Rounded, Poorly Sorted, 7.5YR 8/1, White, Subangular Clast Inclusions, 0.5-1.5cm Diameter		
	45			
	50		SM	

PID READING — PPM X 1 (2 4 6 8 10 12 14 16 18)

SAMPLE: NUMBER | PID READING | RECOVERY | DEPTH (1, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50)

REMARKS: BACKGROUND PID READING
SOIL : _____ PPM
SOIL : _____ PPM

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 04-29-2020
BORING NUMBER : BH-1

JOB NUMBER : Chevron/ 20-0107-03
HOLE DIAMETER : 2"
LOCATION : Skeen 2H 32.071517°, -104.163768
LAI GEOLOGIST : R. Nelson
DRILLING CONTRACTOR : SDI
DRILLING METHOD : Air Rotary

BORING RECORD

Start: 11:30
Finish: 12:30

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG
	55			
	60		SM	
	65	Silty Sand, 18YR 6/5, Pale Brown, Rounded, Fine Grained, Moderately Sorted, Subangular, 0.5-1cm Diameter Inclusions		
	70		ML	
	75			
	80	2.5YR, Pink, Very Fine Grained, Well Rounded, Well Sorted, Subangular, 0.5-1cm Diameter Clast Inclusions		
	85		ML	
	90			
	95	TD: 95'		
	100			
	105			

PID READING: PPM X 1 (2 4 6 8 10 12 14 16 18)

SAMPLE NUMBER	PID READING	RECOVERY DEPTH
		60
		65
		70
		75
		80
		85
		90
		95
		100
		105

REMARKS: BACKGROUND PID READING
SOIL : _____ PPM
SOIL : _____ PPM

- ONE CONTINUOUS AUGER SAMPLER
- STANDARD PENETRATION TEST
- UNDISTURBED SAMPLE
- WATER TABLE (24 HRS)
- WATER TABLE (TIME OF BORING)
- L LABORATORY TEST LOCATION
- \+ PENETROMETER (TONS/ SQ. FT)
- NR NO RECOVERY

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 04-29-2020

BORING NUMBER : BH-1

JOB NUMBER : Chevron/ 20-0107-03
HOLE DIAMETER : 2"
LOCATION : Skeen 2H 32.071517°, -104.163768°
LAI GEOLOGIST : R. Nelson
DRILLING CONTRACTOR : SDI
DRILLING METHOD : Air Rotary

Appendix D

NMOCD Communications

From: Barnhill, Amy D.
To: Robert Nelson
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 109725
Date: Thursday, September 1, 2022 7:23:13 PM

Gravitas 1-25-22

Thank you,
Amy

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Tuesday, August 30, 2022 10:49 AM
To: Barnhill, Amy D. <ABarnhill@chevron.com>
Subject: [**EXTERNAL**] The Oil Conservation Division (OCD) has approved the application, Application ID: 109725

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#) nAPP2202552560, with the following conditions:

- **Remediation Plan Approved.**

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,
Jennifer Nobui
Environmental Specialist-Advanced
505-470-3407
Jennifer.Nobui@state.nm.us

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

Robert Nelson

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Wednesday, January 10, 2024 1:17 PM
To: Robert Nelson; Bratcher, Michael, EMNRD
Cc: Barnhill, Amy D.; Mark Larson; Daniel St. Germain
Subject: Re: [EXTERNAL] Gravitas SWD (nAPP2202552560) Variance/Deferral Approval
Attachments: Implementation-of-Digital-C-141-and-Incident-Statuses.pdf; Figure 4 - Aerial Map Showing Excavation Areas and Variance (nv revised).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon Robert,

Thank you for your correspondence and in speaking with me today.

OCD would reject the liner installation since the new portal guidance document came out on 12/01/2023 (attached and language found under bullet IV at the top of page 14).

I have attached modifications to Figure 4 in order to meet the vertical and horizontal delineation. Once completed, Chevron made wish to defer the soil impacts which resides beneath the surface equipment until the site has been plugged and abandoned.

Since this site originated in 2022, no correspondence was recieved in 2023, and following your explanation what Chevron has conducted currently (extensive manual labor to advance borings &/or trenches), please submit a time extension request in order to be in compliance.

If you have any questions, please contact me at your convenience.

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Robert Nelson <rnelson@laenvironmental.com>
Sent: Tuesday, January 9, 2024 7:12 AM

To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Cc: Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>; Daniel St. Germain <dstgermain@laenvironmental.com>
Subject: [EXTERNAL] Gravitas SWD (nAPP2202552560) Variance/Deferral Approval

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hello Nelson and Mike,

Beginning in October 2022, Larson & Associates, Inc. (LAI) on behalf of Chevron USA (Chevron) began excavation of contaminated soil at the Gravitas SWD (nAPP2202552560) (Site) in Eddy County, New Mexico. A delineation report and remediation plan was submitted to the NMOCD on May 24, 2022 and subsequently approved on August 30, 2022 which entailed removal of contaminated soil encompassing above ground pumps to a maximum depth of approximately 4.5 feet below ground surface (bgs). LAI personnel initially collected eleven (11) bottom (C-1 through C-11) and eleven (11) sidewall (SW-1 through SW-9) confirmation soil samples from within the excavated area. Laboratory analysis reported seven (7) bottom (C-3, C-4, C-6 through C-9, and C-11) and nine (9) sidewall (SW-1 through SW-9) above the NMOCD closure criteria for chloride of 600 mg/Kg. Throughout 2023 additional contaminated soil was removed encompassing the above mentioned sample locations where chloride concentrations remained above the NMOCD closure criteria. As additional soil was removed, five (5) bottom (C-12 through C-16) and two (2) sidewall (SW-9A and SW-12) were collected. Sidewall sample location SW-9A was added to account for a portion of the sidewall encompassing SW-9 where further excavation was possible and away from pumps/pipe supports.

Three (3) bottom confirmation (C-6, C-7, and C-9) soil samples are located adjacent to pipe supports, where further excavation risk jeopardizing the integrity of the above ground pumps and associated pipes. Also, bottom confirmation soil sample C-8 is located between two (2) pumps that have a separation of approximately 4 feet, preventing further excavation without again jeopardizing the integrity of these pumps. Additionally, four (4) sidewall (SW-3, SW-5, SW-8, and SW-9) sample locations are located adjacent to either pumps or pipe supports preventing continued remediation.

On April 29, 2020, LAI personnel supervised the drilling of a groundwater bore (BH-1) approximately 0.37 miles northeast of the Site located at 32.071517, -104.163768. Groundwater was reported at a depth of approximately 25.25 feet bgs 72 hours after drilling. Furthe, the Site is situated in an area where the USGS deems a "high" risk potential for karst. The Site is approximately 825 feet from the "medium" to "high" risk potential for karst border.

Due to safety concerns encompassing the above ground pumps, LAI on behalf of Chevron is requesting a variance from the NMOCD to install a 20-mil polyethylene liner within the bottom of the excavation encompassing sample locations C-6 through C-9. Approximately 0.5 feet of topsoil will overlie the liner to prevent it from being torn during reclamation operations. Further, LAI is requesting a deferral for sidewall sample locations SW-3, SW-5, SW-8, and SW-9 due to these sample locations situated adjacent to above ground pumps or pipe supports. Excavation of these sample locations risks further environmental impacts and would require a major facility deconstruction including, but not limited to, removal of the above ground pumps and piping in order to safely remove the remaining contaminated soil.

Please find attached the confirmation soil sample analytical data summary, sample location map including variance and deferral locations, and aerial photos of the excavation. Please contact Amy Barnhill with Chevron at (432) 687-7723 or ABarnhill@Chevron.com, Mark Larson at (432)687-0901 or mak@laenvironmental.com, or me if you have any questions or wish to discuss this further.

Thank you,

Robert Nelson
Project Manager

Office – 432-687-0901
Cell – 432-664-4804
rnelson@laenvironmental.com

From: Velez, Nelson, EMNRD
To: Robert Nelson
Cc: Barnhill, Amy D.; Mark Larson; Daniel St. Germain; Bratcher, Michael, EMNRD
Subject: Re: [EXTERNAL] Gravitas SWD (nAPP2202552560) Variance/Deferral Approval
Date: Monday, March 11, 2024 3:05:56 PM
Attachments: image001.png
image002.png
Outlook-1wnltc2g.png

Good afternoon Robert,

Thank you for your inquiry. Your deferral on behalf of Chevron requesting approval from the NMOCD for sample locations C-6 through C-9, SW-3, SW-5, SW-8, and SW-9, until decommissioning of the Site upon abandonment is approved.

Please submit formally through OCD Permitting portal.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

Thanks again and have a safe and productive day!

Regards,

Nelson Velez ● Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Robert Nelson <rnelson@laenvironmental.com>
Sent: Monday, March 11, 2024 9:51 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>; Daniel St. Germain <dstgermain@laenvironmental.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: RE: [EXTERNAL] Gravitas SWD (nAPP2202552560) Variance/Deferral Approval

Hello Nelson,

Please find attached the confirmation soil sample analytical data summary (including deferral sample data), deferral area sample location map, and confirmation soil sample location map for the Gravitas SWD (nAPP2202552560) (Site) in Eddy County, New Mexico. On February 2 and 5, 2024, LAI personnel collected two (2) additional vertical delineation soil samples (D-5 and D-6), corresponding with confirmation samples C-8 and C-6, respectively. Also, five (5) additional horizontal delineation soil samples (D-1 through D-4 and D-7), per the NMOCD approved sample locations. Vertical delineation soil samples D-5 and D-6 were collected to a depth of approximately 9-10 feet below ground surface (bgs) and 6.5 – 7.5 feet bgs, respectively. Horizontal delineation soil samples D-1 through D-4 and D-7 were collected at a depth of 0 – 1-foot bgs.

Laboratory analysis reported the vertical delineation soil samples (D-5 and D-6) and horizontal delineation soil samples (D-1 through D-4 and D-7) to be fully delineated according the NMOCD requirements. LAI on behalf of Chevron is requesting approval from the NMOCD for a deferral of sample locations C-6 through C-9, SW-3, SW-5, SW-8, and SW-9, until decommissioning of the Site upon abandonment. Upon decommissioning procedures, the Site will be remediated to the strictest requirements according the NMOCD 19.15.29 NMAC Table 1. The excavation will be backfilled with clean caliche from a nearby borrow pit, verified by laboratory data. If you have any questions or wish to discuss this further, please let Amy Barnhill with Chevron at ABarnhill@Chevron.com, Mark Larson at (432)-687-0901 or mark@laenvironmental.com, or me know.

Thank you,

Robert Nelson
Project Manager
Office – 432-687-0901
Cell – 432-664-4804
rnelson@laenvironmental.com

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Wednesday, January 10, 2024 1:17 PM
To: Robert Nelson <rnelson@laenvironmental.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Cc: Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>; Daniel St. Germain <dstgermain@laenvironmental.com>
Subject: Re: [EXTERNAL] Gravitas SWD (nAPP2202552560) Variance/Deferral Approval

Good afternoon Robert,

Thank you for your correspondence and in speaking with me today.

OCD would reject the liner installation since the new portal guidance document came out on 12/01/2023 (attached and language found under bullet IV at the top of page 14).

I have attached modifications to Figure 4 in order to meet the vertical and horizontal delineation. Once completed, Chevron made wish to defer the soil impacts which resides beneath the surface equipment until the site has been plugged and abandoned.

Since this site originated in 2022, no correspondence was recieved in 2023, and following your explanation what Chevron has conducted currently (extensive manual labor to advance borings &/or trenches), please submit a time extension request in order to be in compliance.

If you have any questions, please contact me at your convenience.

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Robert Nelson <rnelson@laenvironmental.com>
Sent: Tuesday, January 9, 2024 7:12 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Cc: Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>; Daniel St. Germain <dstgermain@laenvironmental.com>
Subject: [EXTERNAL] Gravitas SWD (nAPP2202552560) Variance/Deferral Approval

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hello Nelson and Mike,

Beginning in October 2022, Larson & Associates, Inc. (LAI) on behalf of Chevron USA (Chevron) began excavation of contaminated soil at the Gravitas SWD (nAPP2202552560) (Site) in Eddy County, New

Mexico. A delineation report and remediation plan was submitted to the NMOCD on May 24, 2022 and subsequently approved on August 30, 2022 which entailed removal of contaminated soil encompassing above ground pumps to a maximum depth of approximately 4.5 feet below ground surface (bgs). LAI personnel initially collected eleven (11) bottom (C-1 through C-11) and eleven (11) sidewall (SW-1 through SW-9) confirmation soil samples from within the excavated area. Laboratory analysis reported seven (7) bottom (C-3, C-4, C-6 through C-9, and C-11) and nine (9) sidewall (SW-1 through SW-9) above the NMOCD closure criteria for chloride of 600 mg/Kg. Throughout 2023 additional contaminated soil was removed encompassing the above mentioned sample locations where chloride concentrations remained above the NMOCD closure criteria. As additional soil was removed, five (5) bottom (C-12 through C-16) and two (2) sidewall (SW-9A and SW-12) were collected. Sidewall sample location SW-9A was added to account for a portion of the sidewall encompassing SW-9 where further excavation was possible and away from pumps/pipe supports.

Three (3) bottom confirmation (C-6, C-7, and C-9) soil samples are located adjacent to pipe supports, where further excavation risk jeopardizing the integrity of the above ground pumps and associated pipes. Also, bottom confirmation soil sample C-8 is located between two (2) pumps that have a separation of approximately 4 feet, preventing further excavation without again jeopardizing the integrity of these pumps. Additionally, four (4) sidewall (SW-3, SW-5, SW-8, and SW-9) sample locations are located adjacent to either pumps or pipe supports preventing continued remediation.

On April 29, 2020, LAI personnel supervised the drilling of a groundwater bore (BH-1) approximately 0.37 miles northeast of the Site located at 32.071517, -104.163768. Groundwater was reported at a depth of approximately 25.25 feet bgs 72 hours after drilling. Furthe, the Site is situated in an area where the USGS deems a “high” risk potential for karst. The Site is approximately 825 feet from the “medium” to “high” risk potential for karst border.

Due to safety concerns encompassing the above ground pumps, LAI on behalf of Chevron is requesting a variance from the NMOCD to install a 20-mil polyethylene liner within the bottom of the excavation encompassing sample locations C-6 through C-9. Approximately 0.5 feet of topsoil will overlie the liner to prevent it from being torn during reclamation operations. Further, LAI is requesting a deferral for sidewall sample locations SW-3, SW-5, SW-8, and SW-9 due to these sample locations situated adjacent to above ground pumps or pipe supports. Excavation of these sample locations risks further environmental impacts and would require a major facility deconstruction including, but not limited to, removal of the above ground pumps and piping in order to safely remove the remaining contaminated soil.

Please find attached the confirmation soil sample analytical data summary, sample location map including variance and deferral locations, and aerial photos of the excavation. Please contact Amy Barnhill with Chevron at (432) 687-7723 or ABarnhill@Chevron.com, Mark Larson at (432)687-0901 or mak@laenvironmental.com, or me if you have any questions or wish to discuss this further.

Thank you,

Robert Nelson
Project Manager

Office – 432-687-0901
Cell – 432-664-4804
rnelson@laenvironmental.com

Appendix E

Laboratory Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-11152-1
Laboratory Sample Delivery Group: 22-0105-03
Client Project/Site: Gravitas SWD

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

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
2/18/2022 3:52:59 PM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Laboratory Job ID: 880-11152-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 32
QC Sample Results 35
QC Association Summary 48
Lab Chronicle 57
Certification Summary 67
Method Summary 68
Sample Summary 69
Chain of Custody 70
Receipt Checklists 73

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Job ID: 880-11152-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-11152-1

Receipt
The samples were received on 2/10/2022 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 880-19023 and analytical batch 880-19117 were outside control limits: (880-11152-A-1-A MS) and (880-11152-A-1-B MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: S-1 (880-11152-5), S-2 (880-11152-10), (MB 880-19054/1-A), (880-11152-A-1-E MS) and (880-11152-A-1-F MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-11152-A-21-C MS) and (880-11152-A-21-D MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-19068 and analytical batch 880-19479 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.

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-1 Lab Sample ID: 880-11152-1

Date Collected: 02/08/22 11:05 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1 F2	0.00199		mg/Kg		02/11/22 09:59	02/12/22 13:20	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/11/22 09:59	02/12/22 13:20	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/11/22 09:59	02/12/22 13:20	1
m,p-Xylenes	<0.00398	U F1	0.00398		mg/Kg		02/11/22 09:59	02/12/22 13:20	1
o-Xylene	<0.00199	U F1	0.00199		mg/Kg		02/11/22 09:59	02/12/22 13:20	1
Xylenes, Total	<0.00398	U F1	0.00398		mg/Kg		02/11/22 09:59	02/12/22 13:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/11/22 09:59*	*02/12/22 13:20*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*02/11/22 09:59*	*02/12/22 13:20*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 12:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 12:25	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 12:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*73*		*70 - 130*	*02/10/22 14:26*	*02/11/22 12:25*	*1*
o-Terphenyl (Surr)	*77*		*70 - 130*	*02/10/22 14:26*	*02/11/22 12:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15900**		253		mg/Kg			02/16/22 00:53	50

Client Sample ID: S-1 Lab Sample ID: 880-11152-2

Date Collected: 02/08/22 11:10 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 13:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 13:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 13:40	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 13:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 13:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*02/11/22 09:59*	*02/12/22 13:40*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-1 Lab Sample ID: 880-11152-2

Date Collected: 02/08/22 11:10 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/11/22 09:59*	*02/12/22 13:40*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 15:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 15:03	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	*73*		*70 - 130*	*02/10/22 14:26*	*02/11/22 15:03*	*1*
o-Terphenyl (Surr)	*77*		*70 - 130*	*02/10/22 14:26*	*02/11/22 15:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**307**		24.9	mg/Kg			02/16/22 01:02	5

Client Sample ID: S-1 Lab Sample ID: 880-11152-3

Date Collected: 02/08/22 11:15 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 2.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 14:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 14:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 14:01	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/11/22 09:59	02/12/22 14:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 14:01	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/11/22 09:59	02/12/22 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*02/11/22 09:59*	*02/12/22 14:01*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/11/22 09:59*	*02/12/22 14:01*	*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			02/14/22 09:32	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			02/17/22 15:56	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-1 Lab Sample ID: 880-11152-3

Date Collected: 02/08/22 11:15 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 2.0'

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		02/10/22 14:26	02/11/22 15:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 15:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*72*		*70 - 130*	*02/10/22 14:26*	*02/11/22 15:24*	*1*
o-Terphenyl (Surr)	*77*		*70 - 130*	*02/10/22 14:26*	*02/11/22 15:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**73.8**		4.98		mg/Kg			02/16/22 22:41	1

Client Sample ID: S-1 Lab Sample ID: 880-11152-4

Date Collected: 02/08/22 11:20 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 3.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 14:21	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 14:21	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 14:21	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		02/11/22 09:59	02/12/22 14:21	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 14:21	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/11/22 09:59	02/12/22 14:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*02/11/22 09:59*	*02/12/22 14:21*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*02/11/22 09:59*	*02/12/22 14:21*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 15:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 15:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*72*		*70 - 130*	*02/10/22 14:26*	*02/11/22 15:45*	*1*
o-Terphenyl (Surr)	*77*		*70 - 130*	*02/10/22 14:26*	*02/11/22 15:45*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-1

Lab Sample ID: 880-11152-4
Matrix: Solid
Date Collected: 02/08/22 11:20
Date Received: 02/10/22 09:00
Sample Depth: 3.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.6		5.05		mg/Kg			02/16/22 23:08	1

Client Sample ID: S-1

Lab Sample ID: 880-11152-5
Matrix: Solid
Date Collected: 02/08/22 11:25
Date Received: 02/10/22 09:00
Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/11/22 09:59	02/12/22 14:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/11/22 09:59	02/12/22 14:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/11/22 09:59	02/12/22 14:42	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/11/22 09:59	02/12/22 14:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/11/22 09:59	02/12/22 14:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/11/22 09:59	02/12/22 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*02/11/22 09:59*	*02/12/22 14:42*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/11/22 09:59*	*02/12/22 14:42*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 16:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 16:27	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*69*	*S1-*	*70 - 130*	*02/10/22 14:26*	*02/11/22 16:27*	*1*
o-Terphenyl (Surr)	*72*		*70 - 130*	*02/10/22 14:26*	*02/11/22 16:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.7		4.95		mg/Kg			02/16/22 23:17	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-2 Lab Sample ID: 880-11152-6

Date Collected: 02/08/22 11:30 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 15:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 15:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 15:02	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 15:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 15:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*02/11/22 09:59*	*02/12/22 15:02*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*02/11/22 09:59*	*02/12/22 15:02*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 16:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 16:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*86*		*70 - 130*	*02/10/22 14:26*	*02/11/22 16:48*	*1*
o-Terphenyl (Surr)	*93*		*70 - 130*	*02/10/22 14:26*	*02/11/22 16:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7010**		99.4		mg/Kg			02/16/22 02:13	20

Client Sample ID: S-2 Lab Sample ID: 880-11152-7

Date Collected: 02/08/22 11:32 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 15:22	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 15:22	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 15:22	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		02/11/22 09:59	02/12/22 15:22	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 15:22	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/11/22 09:59	02/12/22 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*02/11/22 09:59*	*02/12/22 15:22*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-2 Lab Sample ID: 880-11152-7

Date Collected: 02/08/22 11:32 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/11/22 09:59*	*02/12/22 15:22*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 17:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 17:09	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	*73*		*70 - 130*	*02/10/22 14:26*	*02/11/22 17:09*	*1*
o-Terphenyl (Surr)	*77*		*70 - 130*	*02/10/22 14:26*	*02/11/22 17:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6600**		50.3	mg/Kg			02/16/22 02:22	10

Client Sample ID: S-2 Lab Sample ID: 880-11152-8

Date Collected: 02/08/22 11:36 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 2.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 15:43	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 15:43	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 15:43	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 15:43	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 15:43	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 15:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*02/11/22 09:59*	*02/12/22 15:43*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/11/22 09:59*	*02/12/22 15:43*	*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			02/14/22 09:32	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			02/17/22 15:56	1

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Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-2 Lab Sample ID: 880-11152-8

Date Collected: 02/08/22 11:36 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 2.0'

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		02/10/22 14:26	02/11/22 17:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 17:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*71*		*70 - 130*	*02/10/22 14:26*	*02/11/22 17:30*	*1*
o-Terphenyl (Surr)	*74*		*70 - 130*	*02/10/22 14:26*	*02/11/22 17:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1600**		25.0		mg/Kg			02/16/22 02:31	5

Client Sample ID: S-2 Lab Sample ID: 880-11152-9

Date Collected: 02/08/22 11:38 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 3.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 16:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 16:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 16:03	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 16:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 16:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*02/11/22 09:59*	*02/12/22 16:03*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*02/11/22 09:59*	*02/12/22 16:03*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 17:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 17:51	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*70*		*70 - 130*	*02/10/22 14:26*	*02/11/22 17:51*	*1*
o-Terphenyl (Surr)	*74*		*70 - 130*	*02/10/22 14:26*	*02/11/22 17:51*	*1*

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-2

Lab Sample ID: 880-11152-9
Matrix: Solid
Date Collected: 02/08/22 11:38
Date Received: 02/10/22 09:00
Sample Depth: 3.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	335		4.98		mg/Kg			02/16/22 02:40	1

Client Sample ID: S-2

Lab Sample ID: 880-11152-10
Matrix: Solid
Date Collected: 02/08/22 11:40
Date Received: 02/10/22 09:00
Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 16:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 16:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 16:24	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 16:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 16:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/11/22 09:59*	*02/12/22 16:24*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/11/22 09:59*	*02/12/22 16:24*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 18:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 18:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*69*	*S1-*	*70 - 130*	*02/10/22 14:26*	*02/11/22 18:13*	*1*
o-Terphenyl (Surr)	*73*		*70 - 130*	*02/10/22 14:26*	*02/11/22 18:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	137		4.95		mg/Kg			02/16/22 02:48	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-3

Lab Sample ID: 880-11152-11
Matrix: Solid
Date Collected: 02/08/22 11:45
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 18:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 18:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 18:14	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 18:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 18:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*02/11/22 09:59*	*02/12/22 18:14*	*1*
1,4-Difluorobenzene (Surr)	*63*	*S1-*	*70 - 130*	*02/11/22 09:59*	*02/12/22 18:14*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 18:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 18:56	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*72*		*70 - 130*	*02/10/22 14:26*	*02/11/22 18:56*	*1*
o-Terphenyl (Surr)	*75*		*70 - 130*	*02/10/22 14:26*	*02/11/22 18:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6580**		99.4		mg/Kg			02/16/22 02:57	20

Client Sample ID: S-3

Lab Sample ID: 880-11152-12
Matrix: Solid
Date Collected: 02/08/22 11:47
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/11/22 09:59	02/12/22 18:34	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/11/22 09:59	02/12/22 18:34	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/11/22 09:59	02/12/22 18:34	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		02/11/22 09:59	02/12/22 18:34	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/11/22 09:59	02/12/22 18:34	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/11/22 09:59	02/12/22 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*02/11/22 09:59*	*02/12/22 18:34*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-3 Lab Sample ID: 880-11152-12

Date Collected: 02/08/22 11:47 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*02/11/22 09:59*	*02/12/22 18:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 19:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 19:17	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*75*		*70 - 130*	*02/10/22 14:26*	*02/11/22 19:17*	*1*
o-Terphenyl (Surr)	*79*		*70 - 130*	*02/10/22 14:26*	*02/11/22 19:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8020**		99.8	mg/Kg			02/16/22 03:06	20

Client Sample ID: S-3 Lab Sample ID: 880-11152-13

Date Collected: 02/08/22 11:50 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 2.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 18:55	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 18:55	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 18:55	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 18:55	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 18:55	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/11/22 09:59*	*02/12/22 18:55*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/11/22 09:59*	*02/12/22 18:55*	*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			02/14/22 09:32	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			02/17/22 15:56	1

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Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-3 Lab Sample ID: 880-11152-13

Date Collected: 02/08/22 11:50 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 2.0'

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		02/10/22 14:26	02/11/22 19:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 19:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*72*		*70 - 130*	*02/10/22 14:26*	*02/11/22 19:38*	*1*
o-Terphenyl (Surr)	*76*		*70 - 130*	*02/10/22 14:26*	*02/11/22 19:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7370**		101		mg/Kg			02/18/22 02:45	20

Client Sample ID: S-3 Lab Sample ID: 880-11152-14

Date Collected: 02/08/22 11:55 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 3.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 19:15	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 19:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 19:15	1
m,p-Xylenes	<0.00397	U	0.00397		mg/Kg		02/11/22 09:59	02/12/22 19:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/11/22 09:59	02/12/22 19:15	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		02/11/22 09:59	02/12/22 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/11/22 09:59*	*02/12/22 19:15*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*02/11/22 09:59*	*02/12/22 19:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 19:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 19:58	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*73*		*70 - 130*	*02/10/22 14:26*	*02/11/22 19:58*	*1*
o-Terphenyl (Surr)	*77*		*70 - 130*	*02/10/22 14:26*	*02/11/22 19:58*	*1*

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-3

Lab Sample ID: 880-11152-14
Matrix: Solid
Date Collected: 02/08/22 11:55
Date Received: 02/10/22 09:00
Sample Depth: 3.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1520		49.8		mg/Kg			02/18/22 03:04	10

Client Sample ID: S-3

Lab Sample ID: 880-11152-15
Matrix: Solid
Date Collected: 02/08/22 12:00
Date Received: 02/10/22 09:00
Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 19:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 19:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 19:36	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		02/11/22 09:59	02/12/22 19:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 19:36	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/11/22 09:59	02/12/22 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*02/11/22 09:59*	*02/12/22 19:36*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/11/22 09:59*	*02/12/22 19:36*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 20:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 20:19	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*75*		*70 - 130*	*02/10/22 14:26*	*02/11/22 20:19*	*1*
o-Terphenyl (Surr)	*78*		*70 - 130*	*02/10/22 14:26*	*02/11/22 20:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		4.95		mg/Kg			02/18/22 03:10	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-4
Lab Sample ID: 880-11152-16
Date Collected: 02/08/22 12:17 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/11/22 09:59	02/12/22 19:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/11/22 09:59	02/12/22 19:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/11/22 09:59	02/12/22 19:56	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		02/11/22 09:59	02/12/22 19:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/11/22 09:59	02/12/22 19:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/11/22 09:59	02/12/22 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*02/11/22 09:59*	*02/12/22 19:56*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/11/22 09:59*	*02/12/22 19:56*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 20:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 20:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*73*		*70 - 130*	*02/10/22 14:26*	*02/11/22 20:40*	*1*
o-Terphenyl (Surr)	*76*		*70 - 130*	*02/10/22 14:26*	*02/11/22 20:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8900**		100		mg/Kg			02/18/22 03:17	20

Client Sample ID: S-4
Lab Sample ID: 880-11152-17
Date Collected: 02/08/22 12:20 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/11/22 09:59	02/12/22 20:17	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/11/22 09:59	02/12/22 20:17	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/11/22 09:59	02/12/22 20:17	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/11/22 09:59	02/12/22 20:17	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/11/22 09:59	02/12/22 20:17	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/11/22 09:59	02/12/22 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*02/11/22 09:59*	*02/12/22 20:17*	*1*

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Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-4 Lab Sample ID: 880-11152-17

Date Collected: 02/08/22 12:20 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*02/11/22 09:59*	*02/12/22 20:17*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 21:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 21:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	*77*		*70 - 130*	*02/10/22 14:26*	*02/11/22 21:02*	*1*
o-Terphenyl (Surr)	*81*		*70 - 130*	*02/10/22 14:26*	*02/11/22 21:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**556**		4.99	mg/Kg			02/18/22 03:23	1

Client Sample ID: S-4 Lab Sample ID: 880-11152-18

Date Collected: 02/08/22 12:22 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 2.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 20:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 20:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 20:37	1
m,p-Xylenes	<0.00401	U	0.00401	mg/Kg		02/11/22 09:59	02/12/22 20:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 20:37	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/11/22 09:59	02/12/22 20:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*02/11/22 09:59*	*02/12/22 20:37*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/11/22 09:59*	*02/12/22 20:37*	*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			02/14/22 09:32	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			02/17/22 15:56	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-4

Lab Sample ID: 880-11152-18
Matrix: Solid
Date Collected: 02/08/22 12:22
Date Received: 02/10/22 09:00
Sample Depth: 2.0'

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		02/10/22 14:26	02/11/22 21:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 21:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:26	02/11/22 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*72*		*70 - 130*	*02/10/22 14:26*	*02/11/22 21:24*	*1*
o-Terphenyl (Surr)	*76*		*70 - 130*	*02/10/22 14:26*	*02/11/22 21:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**432**		24.8		mg/Kg			02/18/22 03:42	5

Client Sample ID: S-4

Lab Sample ID: 880-11152-19
Matrix: Solid
Date Collected: 02/08/22 12:25
Date Received: 02/10/22 09:00
Sample Depth: 3.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/11/22 09:59	02/12/22 20:57	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/11/22 09:59	02/12/22 20:57	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/11/22 09:59	02/12/22 20:57	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		02/11/22 09:59	02/12/22 20:57	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/11/22 09:59	02/12/22 20:57	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/11/22 09:59	02/12/22 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*02/11/22 09:59*	*02/12/22 20:57*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*02/11/22 09:59*	*02/12/22 20:57*	*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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 21:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 21:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*75*		*70 - 130*	*02/10/22 14:26*	*02/11/22 21:44*	*1*
o-Terphenyl (Surr)	*79*		*70 - 130*	*02/10/22 14:26*	*02/11/22 21:44*	*1*

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-4

Lab Sample ID: 880-11152-19
Matrix: Solid
Date Collected: 02/08/22 12:25
Date Received: 02/10/22 09:00
Sample Depth: 3.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**337**		24.9		mg/Kg			02/18/22 03:48	5

Client Sample ID: S-4

Lab Sample ID: 880-11152-20
Matrix: Solid
Date Collected: 02/08/22 12:27
Date Received: 02/10/22 09:00
Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/11/22 09:59	02/12/22 21:18	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/11/22 09:59	02/12/22 21:18	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/11/22 09:59	02/12/22 21:18	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		02/11/22 09:59	02/12/22 21:18	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/11/22 09:59	02/12/22 21:18	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/11/22 09:59	02/12/22 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*02/11/22 09:59*	*02/12/22 21:18*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*02/11/22 09:59*	*02/12/22 21:18*	*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			02/14/22 09:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**63.4**		49.8		mg/Kg			02/17/22 15:56	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	<49.8	U	49.8		mg/Kg		02/10/22 14:26	02/11/22 22:05	1
Diesel Range Organics (Over C10-C28)	**63.4**		49.8		mg/Kg		02/10/22 14:26	02/11/22 22:05	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/10/22 14:26	02/11/22 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*78*		*70 - 130*	*02/10/22 14:26*	*02/11/22 22:05*	*1*
o-Terphenyl (Surr)	*82*		*70 - 130*	*02/10/22 14:26*	*02/11/22 22:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**177**		4.96		mg/Kg			02/18/22 03:55	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-5
Lab Sample ID: 880-11152-21
Date Collected: 02/08/22 12:35
Matrix: Solid
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/11/22 11:13	02/12/22 03:43	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/11/22 11:13	02/12/22 03:43	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/11/22 11:13	02/12/22 03:43	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		02/11/22 11:13	02/12/22 03:43	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/11/22 11:13	02/12/22 03:43	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/11/22 11:13	02/12/22 03:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/11/22 11:13*	*02/12/22 03:43*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/11/22 11:13*	*02/12/22 03:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 11:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:29	02/13/22 11:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:29	02/13/22 11:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*91*		*70 - 130*	*02/10/22 14:29*	*02/13/22 11:55*	*1*
o-Terphenyl (Surr)	*90*		*70 - 130*	*02/10/22 14:29*	*02/13/22 11:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5360**		100		mg/Kg			02/18/22 04:01	20

Client Sample ID: S-5
Lab Sample ID: 880-11152-22
Date Collected: 02/08/22 12:40
Matrix: Solid
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/11/22 11:13	02/12/22 04:04	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/11/22 11:13	02/12/22 04:04	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/11/22 11:13	02/12/22 04:04	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		02/11/22 11:13	02/12/22 04:04	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/11/22 11:13	02/12/22 04:04	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/11/22 11:13	02/12/22 04:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*02/11/22 11:13*	*02/12/22 04:04*	*1*

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-5

Date Collected: 02/08/22 12:40
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Lab Sample ID: 880-11152-22
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*02/11/22 11:13*	*02/12/22 04:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 12:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 12:58	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 12:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	*81*		*70 - 130*	*02/10/22 14:29*	*02/13/22 12:58*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*02/10/22 14:29*	*02/13/22 12:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**831**		25.0	mg/Kg			02/18/22 04:07	5

Client Sample ID: S-5

Date Collected: 02/08/22 12:45
Date Received: 02/10/22 09:00
Sample Depth: 2.0'

Lab Sample ID: 880-11152-23
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		02/11/22 11:13	02/12/22 04:24	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:24	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:24	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/11/22 11:13	02/12/22 04:24	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:24	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/22 11:13	02/12/22 04:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*02/11/22 11:13*	*02/12/22 04:24*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*02/11/22 11:13*	*02/12/22 04:24*	*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			02/14/22 09:43	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			02/15/22 13:20	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-5

Lab Sample ID: 880-11152-23
Matrix: Solid
Date Collected: 02/08/22 12:45
Date Received: 02/10/22 09:00
Sample Depth: 2.0'

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		02/10/22 14:29	02/13/22 13:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:29	02/13/22 13:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:29	02/13/22 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*80*		*70 - 130*	*02/10/22 14:29*	*02/13/22 13:18*	*1*
o-Terphenyl (Surr)	*85*		*70 - 130*	*02/10/22 14:29*	*02/13/22 13:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**696**		4.97		mg/Kg			02/18/22 04:14	1

Client Sample ID: S-5

Lab Sample ID: 880-11152-24
Matrix: Solid
Date Collected: 02/08/22 12:50
Date Received: 02/10/22 09:00
Sample Depth: 3.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/11/22 11:13	02/12/22 04:45	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/11/22 11:13	02/12/22 04:45	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/11/22 11:13	02/12/22 04:45	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/11/22 11:13	02/12/22 04:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/11/22 11:13	02/12/22 04:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/11/22 11:13	02/12/22 04:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/11/22 11:13*	*02/12/22 04:45*	*1*
1,4-Difluorobenzene (Surr)	*71*		*70 - 130*	*02/11/22 11:13*	*02/12/22 04:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 13:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:29	02/13/22 13:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:29	02/13/22 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*85*		*70 - 130*	*02/10/22 14:29*	*02/13/22 13:39*	*1*
o-Terphenyl (Surr)	*90*		*70 - 130*	*02/10/22 14:29*	*02/13/22 13:39*	*1*

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Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-5 Lab Sample ID: 880-11152-24

Date Collected: 02/08/22 12:50 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 3.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	191		4.95		mg/Kg			02/18/22 04:33	1

Client Sample ID: S-5 Lab Sample ID: 880-11152-25

Date Collected: 02/08/22 13:00 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/11/22 11:13	02/12/22 05:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/11/22 11:13	02/12/22 05:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/11/22 11:13	02/12/22 05:05	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/11/22 11:13	02/12/22 05:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/11/22 11:13	02/12/22 05:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/11/22 11:13	02/12/22 05:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/11/22 11:13*	*02/12/22 05:05*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*02/11/22 11:13*	*02/12/22 05:05*	*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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 14:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:29	02/13/22 14:00	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:29	02/13/22 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*79*		*70 - 130*	*02/10/22 14:29*	*02/13/22 14:00*	*1*
o-Terphenyl (Surr)	*85*		*70 - 130*	*02/10/22 14:29*	*02/13/22 14:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	196		4.98		mg/Kg			02/18/22 04:39	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-6

Lab Sample ID: 880-11152-26
Matrix: Solid
Date Collected: 02/08/22 11:39
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/11/22 11:13	02/12/22 05:26	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/11/22 11:13	02/12/22 05:26	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/11/22 11:13	02/12/22 05:26	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		02/11/22 11:13	02/12/22 05:26	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/11/22 11:13	02/12/22 05:26	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/11/22 11:13	02/12/22 05:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/11/22 11:13*	*02/12/22 05:26*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*02/11/22 11:13*	*02/12/22 05:26*	*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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 14:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:29	02/13/22 14:20	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:29	02/13/22 14:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*85*		*70 - 130*	*02/10/22 14:29*	*02/13/22 14:20*	*1*
o-Terphenyl (Surr)	*92*		*70 - 130*	*02/10/22 14:29*	*02/13/22 14:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**790**		49.9		mg/Kg			02/18/22 04:58	10

Client Sample ID: S-6

Lab Sample ID: 880-11152-27
Matrix: Solid
Date Collected: 02/08/22 11:40
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 11:13	02/12/22 05:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 11:13	02/12/22 05:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 11:13	02/12/22 05:46	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		02/11/22 11:13	02/12/22 05:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 11:13	02/12/22 05:46	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/11/22 11:13	02/12/22 05:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/11/22 11:13*	*02/12/22 05:46*	*1*

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Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-6 Lab Sample ID: 880-11152-27

Date Collected: 02/08/22 11:40 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*02/11/22 11:13*	*02/12/22 05:46*	*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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 14:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 14:41	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 14:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*104*		*70 - 130*	*02/10/22 14:29*	*02/13/22 14:41*	*1*
o-Terphenyl (Surr)	*109*		*70 - 130*	*02/10/22 14:29*	*02/13/22 14:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.5**		5.04	mg/Kg			02/18/22 05:05	1

Client Sample ID: S-7 Lab Sample ID: 880-11152-28

Date Collected: 02/08/22 11:45 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/11/22 11:13	02/12/22 06:07	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/11/22 11:13	02/12/22 06:07	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/11/22 11:13	02/12/22 06:07	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/11/22 11:13	02/12/22 06:07	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/11/22 11:13	02/12/22 06:07	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/11/22 11:13	02/12/22 06:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/11/22 11:13*	*02/12/22 06:07*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/11/22 11:13*	*02/12/22 06:07*	*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			02/14/22 09:43	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			02/15/22 13:20	1

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Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-7 Lab Sample ID: 880-11152-28

Date Collected: 02/08/22 11:45 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

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		02/10/22 14:29	02/13/22 15:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:29	02/13/22 15:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:29	02/13/22 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*79*		*70 - 130*	*02/10/22 14:29*	*02/13/22 15:01*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*02/10/22 14:29*	*02/13/22 15:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.63**		4.95		mg/Kg			02/18/22 05:11	1

Client Sample ID: S-7 Lab Sample ID: 880-11152-29

Date Collected: 02/08/22 11:46 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/12/22 06:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/12/22 06:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/12/22 06:44	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/10/22 11:07	02/12/22 06:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/12/22 06:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/10/22 11:07	02/12/22 06:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/10/22 11:07*	*02/12/22 06:44*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*02/10/22 11:07*	*02/12/22 06:44*	*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			02/14/22 08:59	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 15:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:29	02/13/22 15:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:29	02/13/22 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*81*		*70 - 130*	*02/10/22 14:29*	*02/13/22 15:22*	*1*
o-Terphenyl (Surr)	*87*		*70 - 130*	*02/10/22 14:29*	*02/13/22 15:22*	*1*

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-7

Lab Sample ID: 880-11152-29
Matrix: Solid
Date Collected: 02/08/22 11:46
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.29		5.05		mg/Kg			02/18/22 05:17	1

Client Sample ID: S-8

Lab Sample ID: 880-11152-30
Matrix: Solid
Date Collected: 02/08/22 11:50
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/12/22 07:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/12/22 07:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/12/22 07:12	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		02/10/22 11:07	02/12/22 07:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/12/22 07:12	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/10/22 11:07	02/12/22 07:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/10/22 11:07*	*02/12/22 07:12*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*02/10/22 11:07*	*02/12/22 07:12*	*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			02/14/22 08:59	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 15:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:29	02/13/22 15:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:29	02/13/22 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*68*	*S1-*	*70 - 130*	*02/10/22 14:29*	*02/13/22 15:43*	*1*
o-Terphenyl (Surr)	*75*		*70 - 130*	*02/10/22 14:29*	*02/13/22 15:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2990		49.8		mg/Kg			02/18/22 05:24	10

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-8

Lab Sample ID: 880-11152-31
Matrix: Solid
Date Collected: 02/08/22 11:51
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F1	0.00201		mg/Kg		02/11/22 16:00	02/12/22 09:30	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/11/22 16:00	02/12/22 09:30	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/11/22 16:00	02/12/22 09:30	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		02/11/22 16:00	02/12/22 09:30	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/11/22 16:00	02/12/22 09:30	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/11/22 16:00	02/12/22 09:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/11/22 16:00*	*02/12/22 09:30*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/11/22 16:00*	*02/12/22 09:30*	*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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 16:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 14:29	02/13/22 16:24	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 14:29	02/13/22 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*75*		*70 - 130*	*02/10/22 14:29*	*02/13/22 16:24*	*1*
o-Terphenyl (Surr)	*81*		*70 - 130*	*02/10/22 14:29*	*02/13/22 16:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3540**		50.0		mg/Kg			02/18/22 05:30	10

Client Sample ID: S-9

Lab Sample ID: 880-11152-32
Matrix: Solid
Date Collected: 02/08/22 11:55
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 16:00	02/12/22 09:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 16:00	02/12/22 09:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 16:00	02/12/22 09:51	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/11/22 16:00	02/12/22 09:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 16:00	02/12/22 09:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/11/22 16:00	02/12/22 09:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*02/11/22 16:00*	*02/12/22 09:51*	*1*

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Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: S-9 Lab Sample ID: 880-11152-32

Date Collected: 02/08/22 11:55 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 0.5'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*	*02/11/22 16:00*	*02/12/22 09:51*	*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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 16:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 16:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*73*		*70 - 130*	*02/10/22 14:29*	*02/13/22 16:44*	*1*
o-Terphenyl (Surr)	*79*		*70 - 130*	*02/10/22 14:29*	*02/13/22 16:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.1**		5.00	mg/Kg			02/18/22 05:36	1

Client Sample ID: S-9 Lab Sample ID: 880-11152-33

Date Collected: 02/08/22 11:56 **Matrix: Solid**
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 10:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 10:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 10:11	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/11/22 16:00	02/12/22 10:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 10:11	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/11/22 16:00	02/12/22 10:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*02/11/22 16:00*	*02/12/22 10:11*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*02/11/22 16:00*	*02/12/22 10:11*	*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			02/14/22 09:43	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			02/17/22 15:56	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-9

Date Collected: 02/08/22 11:56
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Lab Sample ID: 880-11152-33

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		02/10/22 11:25	02/12/22 05:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/10/22 11:25	02/12/22 05:17	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/10/22 11:25	02/12/22 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*92*		*70 - 130*	*02/10/22 11:25*	*02/12/22 05:17*	*1*
o-Terphenyl (Surr)	*92*		*70 - 130*	*02/10/22 11:25*	*02/12/22 05:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2410**	**F1**	25.0		mg/Kg			02/18/22 09:30	5

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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)										
880-11151-A-1-A MS	Matrix Spike	102	89										
880-11151-A-1-B MSD	Matrix Spike Duplicate	354 S1+	869 S1+										
880-11152-1	S-1	99	86										
880-11152-1 MS	S-1	120	79										
880-11152-1 MSD	S-1	112	90										
880-11152-2	S-1	96	88										
880-11152-3	S-1	110	104										
880-11152-4	S-1	106	89										
880-11152-5	S-1	106	101										
880-11152-6	S-2	87	78										
880-11152-7	S-2	100	105										
880-11152-8	S-2	93	106										
880-11152-9	S-2	102	87										
880-11152-10	S-2	104	94										
880-11152-11	S-3	112	63 S1-										
880-11152-12	S-3	101	89										
880-11152-13	S-3	108	96										
880-11152-14	S-3	105	89										
880-11152-15	S-3	112	94										
880-11152-16	S-4	100	96										
880-11152-17	S-4	100	89										
880-11152-18	S-4	82	83										
880-11152-19	S-4	84	80										
880-11152-20	S-4	98	82										
880-11152-21	S-5	108	97										
880-11152-22	S-5	114	113										
880-11152-23	S-5	106	84										
880-11152-24	S-5	111	71										
880-11152-25	S-5	97	99										
880-11152-26	S-6	105	109										
880-11152-27	S-6	97	103										
880-11152-28	S-7	99	106										
880-11152-29	S-7	103	100										
880-11152-30	S-8	108	99										
880-11152-31	S-8	103	83										
880-11152-31 MS	S-8	109	99										
880-11152-31 MSD	S-8	106	114										
880-11152-32	S-9	118	122										
880-11152-33	S-9	94	103										
LCS 880-19023/1-A	Lab Control Sample	113	98										
LCS 880-19034/1-A	Lab Control Sample	107	85										
LCS 880-19035/1-A	Lab Control Sample	107	114										
LCS 880-19036/1-A	Lab Control Sample	93	106										
LCSD 880-19023/2-A	Lab Control Sample Dup	101	93										
LCSD 880-19034/2-A	Lab Control Sample Dup	105	104										
LCSD 880-19035/2-A	Lab Control Sample Dup	102	101										
LCSD 880-19036/2-A	Lab Control Sample Dup	97	88										
MB 880-18969/5-A	Method Blank	69 S1-	97										
MB 880-19021/5-A	Method Blank	130	103										

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) BFB1 (70-130)	DFBZ1 (70-130)
MB 880-19023/5-A	Method Blank	124	98
MB 880-19034/5-A	Method Blank	80	83
MB 880-19035/5-A	Method Blank	89	100
MB 880-19036/5-A	Method Blank	104	104

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**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) 1CO1 (70-130)	OTPH1 (70-130)
880-11144-A-1-E MS	Matrix Spike	87	84
880-11144-A-1-F MSD	Matrix Spike Duplicate	78	75
880-11152-1	S-1	73	77
880-11152-1 MS	S-1	70	61 S1-
880-11152-1 MSD	S-1	72	66 S1-
880-11152-2	S-1	73	77
880-11152-3	S-1	72	77
880-11152-4	S-1	72	77
880-11152-5	S-1	69 S1-	72
880-11152-6	S-2	86	93
880-11152-7	S-2	73	77
880-11152-8	S-2	71	74
880-11152-9	S-2	70	74
880-11152-10	S-2	69 S1-	73
880-11152-11	S-3	72	75
880-11152-12	S-3	75	79
880-11152-13	S-3	72	76
880-11152-14	S-3	73	77
880-11152-15	S-3	75	78
880-11152-16	S-4	73	76
880-11152-17	S-4	77	81
880-11152-18	S-4	72	76
880-11152-19	S-4	75	79
880-11152-20	S-4	78	82
880-11152-21	S-5	91	90
880-11152-21 MS	S-5	63 S1-	63 S1-
880-11152-21 MSD	S-5	65 S1-	64 S1-
880-11152-22	S-5	81	86
880-11152-23	S-5	80	85
880-11152-24	S-5	85	90
880-11152-25	S-5	79	85
880-11152-26	S-6	85	92
880-11152-27	S-6	104	109
880-11152-28	S-7	79	86
880-11152-29	S-7	81	87
880-11152-30	S-8	68 S1-	75

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
880-11152-31	S-8	75	81								
880-11152-32	S-9	73	79								
880-11152-33	S-9	92	92								
LCS 880-19054/2-A	Lab Control Sample	96	92								
LCSD 880-19054/3-A	Lab Control Sample Dup	96	92								
MB 880-19054/1-A	Method Blank	66 S1-	70								

Surrogate Legend

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO2	OTPH2								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCS 880-19037/2-A	Lab Control Sample	99	92								
LCS 880-19055/2-A	Lab Control Sample	95	106								
LCSD 880-19037/3-A	Lab Control Sample Dup	90	88								
LCSD 880-19055/3-A	Lab Control Sample Dup	106	114								
MB 880-19037/1-A	Method Blank	81	80								
MB 880-19055/1-A	Method Blank	78	82								

Surrogate Legend

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-18969/5-A
Matrix: Solid
Analysis Batch: 19027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18969

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/10/22 08:36	02/11/22 06:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/22 08:36	02/11/22 06:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/22 08:36	02/11/22 06:22	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/10/22 08:36	02/11/22 06:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/22 08:36	02/11/22 06:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/10/22 08:36	02/11/22 06:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*02/10/22 08:36*	*02/11/22 06:22*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/10/22 08:36*	*02/11/22 06:22*	*1*

Lab Sample ID: MB 880-19021/5-A
Matrix: Solid
Analysis Batch: 19117

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19021

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 08:30	02/12/22 01:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 08:30	02/12/22 01:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 08:30	02/12/22 01:15	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/11/22 08:30	02/12/22 01:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 08:30	02/12/22 01:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/11/22 08:30	02/12/22 01:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*02/11/22 08:30*	*02/12/22 01:15*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*02/11/22 08:30*	*02/12/22 01:15*	*1*

Lab Sample ID: MB 880-19023/5-A
Matrix: Solid
Analysis Batch: 19117

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19023

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 12:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 12:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 12:51	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 12:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 09:59	02/12/22 12:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/11/22 09:59	02/12/22 12:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*02/11/22 09:59*	*02/12/22 12:51*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/11/22 09:59*	*02/12/22 12:51*	*1*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-19023/1-A
Matrix: Solid
Analysis Batch: 19117

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19023

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09465		mg/Kg		95	70 - 130		
Toluene			0.100	0.1028		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.1078		mg/Kg		108	70 - 130		
m,p-Xylenes			0.200	0.2046		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.1017		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-19023/2-A
Matrix: Solid
Analysis Batch: 19117

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19023

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07792		mg/Kg		78	70 - 130	19	35
Toluene			0.100	0.08710		mg/Kg		87	70 - 130	17	35
Ethylbenzene			0.100	0.09355		mg/Kg		94	70 - 130	14	35
m,p-Xylenes			0.200	0.1806		mg/Kg		90	70 - 130	12	35
o-Xylene			0.100	0.08661		mg/Kg		87	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 880-11152-1 MS
Matrix: Solid
Analysis Batch: 19117

Client Sample ID: S-1
Prep Type: Total/NA
Prep Batch: 19023

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F1 F2	0.0996	0.05318	F1	mg/Kg		53	70 - 130		
Toluene	<0.00199	U	0.0996	0.07038		mg/Kg		71	70 - 130		
Ethylbenzene	<0.00199	U	0.0996	0.07407		mg/Kg		74	70 - 130		
m,p-Xylenes	<0.00398	U F1	0.199	0.1210	F1	mg/Kg		61	70 - 130		
o-Xylene	<0.00199	U F1	0.0996	0.06267	F1	mg/Kg		63	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*

Lab Sample ID: 880-11152-1 MSD
Matrix: Solid
Analysis Batch: 19117

Client Sample ID: S-1
Prep Type: Total/NA
Prep Batch: 19023

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1 F2	0.0998	0.07733	F2	mg/Kg		77	70 - 130	37	35
Toluene	<0.00199	U	0.0998	0.08056		mg/Kg		81	70 - 130	13	35
Ethylbenzene	<0.00199	U	0.0998	0.08292		mg/Kg		83	70 - 130	11	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: 880-11152-1 MSD
Matrix: Solid
Analysis Batch: 19117

Client Sample ID: S-1
Prep Type: Total/NA
Prep Batch: 19023

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m,p-Xylenes	<0.00398	U F1	0.200	0.1579		mg/Kg		79	70 - 130	26	35
o-Xylene	<0.00199	U F1	0.0998	0.07717		mg/Kg		77	70 - 130	21	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: MB 880-19034/5-A
Matrix: Solid
Analysis Batch: 19027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19034

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/11/22 20:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/11/22 20:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/11/22 20:49	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/10/22 11:07	02/11/22 20:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/22 11:07	02/11/22 20:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/10/22 11:07	02/11/22 20:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*02/10/22 11:07*	*02/11/22 20:49*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/10/22 11:07*	*02/11/22 20:49*	*1*

Lab Sample ID: LCS 880-19034/1-A
Matrix: Solid
Analysis Batch: 19027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19034

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09037		mg/Kg		90	70 - 130		
Toluene			0.100	0.08837		mg/Kg		88	70 - 130		
Ethylbenzene			0.100	0.08677		mg/Kg		87	70 - 130		
m,p-Xylenes			0.200	0.1843		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09916		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: LCSD 880-19034/2-A
Matrix: Solid
Analysis Batch: 19027

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19034

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08945		mg/Kg		89	70 - 130	1	35
Toluene			0.100	0.08494		mg/Kg		85	70 - 130	4	35
Ethylbenzene			0.100	0.08443		mg/Kg		84	70 - 130	3	35
m,p-Xylenes			0.200	0.1750		mg/Kg		87	70 - 130	5	35
o-Xylene			0.100	0.09265		mg/Kg		93	70 - 130	7	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-11151-A-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19027 — **Prep Batch: 19034**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00201	U F2 F1	0.101	0.04750	F1	mg/Kg		47	70 - 130
Toluene	<0.00201	U F1	0.101	0.05238	F1	mg/Kg		52	70 - 130
Ethylbenzene	<0.00201	U F2 F1	0.101	0.05893	F1	mg/Kg		59	70 - 130
m,p-Xylenes	<0.00402	U F2 F1	0.201	0.1171	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00201	U F2 F1	0.101	0.06412	F1	mg/Kg		64	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 880-11151-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19027 — **Prep Batch: 19034**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U F2 F1	0.101	0.02609	F2 F1	mg/Kg		26	70 - 130	58	35
Toluene	<0.00201	U F1	0.101	0.04610	F1	mg/Kg		46	70 - 130	13	35
Ethylbenzene	<0.00201	U F2 F1	0.101	0.02913	F2 F1	mg/Kg		29	70 - 130	68	35
m,p-Xylenes	<0.00402	U F2 F1	0.202	0.01712	F2 F1	mg/Kg		8	70 - 130	149	35
o-Xylene	<0.00201	U F2 F1	0.101	0.1538	F1 F2	mg/Kg		152	70 - 130	82	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	354	S1+	70 - 130
1,4-Difluorobenzene (Surr)	869	S1+	70 - 130

Lab Sample ID: MB 880-19035/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19116 — **Prep Batch: 19035**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/11/22 22:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/11/22 22:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/11/22 22:14	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 11:13	02/11/22 22:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/11/22 22:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 11:13	02/11/22 22:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	02/11/22 11:13	02/11/22 22:14	1
1,4-Difluorobenzene (Surr)	100		70 - 130	02/11/22 11:13	02/11/22 22:14	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-19035/1-A
Matrix: Solid
Analysis Batch: 19116

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19035

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1024		mg/Kg		102	70 - 130		
Toluene			0.100	0.09663		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.1024		mg/Kg		102	70 - 130		
m,p-Xylenes			0.200	0.2128		mg/Kg		106	70 - 130		
o-Xylene			0.100	0.1063		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: LCSD 880-19035/2-A
Matrix: Solid
Analysis Batch: 19116

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19035

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09526		mg/Kg		95	70 - 130	7	35
Toluene			0.100	0.09416		mg/Kg		94	70 - 130	3	35
Ethylbenzene			0.100	0.09640		mg/Kg		96	70 - 130	6	35
m,p-Xylenes			0.200	0.1966		mg/Kg		98	70 - 130	8	35
o-Xylene			0.100	0.09795		mg/Kg		98	70 - 130	8	35

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

Lab Sample ID: MB 880-19036/5-A
Matrix: Solid
Analysis Batch: 19116

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19036

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/11/22 16:00	02/12/22 09:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/11/22 16:00	02/12/22 09:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/11/22 16:00	02/12/22 09:09	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/11/22 16:00	02/12/22 09:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/11/22 16:00	02/12/22 09:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/11/22 16:00	02/12/22 09:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/11/22 16:00*	*02/12/22 09:09*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/11/22 16:00*	*02/12/22 09:09*	*1*

Lab Sample ID: LCS 880-19036/1-A
Matrix: Solid
Analysis Batch: 19116

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19036

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09249		mg/Kg		92	70 - 130		
Toluene			0.100	0.09207		mg/Kg		92	70 - 130		

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-19036/1-A
Matrix: Solid
Analysis Batch: 19116

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19036

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			0.100	0.09926		mg/Kg		99	70 - 130		
m,p-Xylenes			0.200	0.1837		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09006		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-19036/2-A
Matrix: Solid
Analysis Batch: 19116

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19036

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08701		mg/Kg		87	70 - 130	6	35
Toluene			0.100	0.08975		mg/Kg		90	70 - 130	3	35
Ethylbenzene			0.100	0.09948		mg/Kg		99	70 - 130	0	35
m,p-Xylenes			0.200	0.1868		mg/Kg		93	70 - 130	2	35
o-Xylene			0.100	0.09313		mg/Kg		93	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: 880-11152-31 MS
Matrix: Solid
Analysis Batch: 19116

Client Sample ID: S-8
Prep Type: Total/NA
Prep Batch: 19036

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00201	U F1	0.0998	0.06812	F1	mg/Kg		68	70 - 130		
Toluene	<0.00201	U	0.0998	0.07261		mg/Kg		73	70 - 130		
Ethylbenzene	<0.00201	U	0.0998	0.08506		mg/Kg		85	70 - 130		
m,p-Xylenes	<0.00402	U	0.200	0.1566		mg/Kg		78	70 - 130		
o-Xylene	<0.00201	U	0.0998	0.08036		mg/Kg		81	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-11152-31 MSD
Matrix: Solid
Analysis Batch: 19116

Client Sample ID: S-8
Prep Type: Total/NA
Prep Batch: 19036

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0998	0.08550		mg/Kg		86	70 - 130	23	35
Toluene	<0.00201	U	0.0998	0.08578		mg/Kg		86	70 - 130	17	35
Ethylbenzene	<0.00201	U	0.0998	0.09057		mg/Kg		91	70 - 130	6	35
m,p-Xylenes	<0.00402	U	0.200	0.1705		mg/Kg		85	70 - 130	8	35
o-Xylene	<0.00201	U	0.0998	0.08550		mg/Kg		86	70 - 130	6	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	114		70 - 130

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

Lab Sample ID: MB 880-19037/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19108 — **Prep Batch: 19037**

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		02/10/22 11:25	02/11/22 20:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 11:25	02/11/22 20:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 11:25	02/11/22 20:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	81		70 - 130	02/10/22 11:25	02/11/22 20:48	1
o-Terphenyl (Surr)	80		70 - 130	02/10/22 11:25	02/11/22 20:48	1

Lab Sample ID: LCS 880-19037/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19108 — **Prep Batch: 19037**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1007		mg/Kg		101	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	932.9		mg/Kg		93	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	99		70 - 130
o-Terphenyl (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-19037/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19108 — **Prep Batch: 19037**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	974.0		mg/Kg		97	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	875.8		mg/Kg		88	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	90		70 - 130
o-Terphenyl (Surr)	88		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: 880-11144-A-1-E MS
Matrix: Solid
Analysis Batch: 19108

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 19037

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1173		mg/Kg		115	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1015		mg/Kg		102	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*87*		*70 - 130*
o-Terphenyl (Surr)	*84*		*70 - 130*

Lab Sample ID: 880-11144-A-1-F MSD
Matrix: Solid
Analysis Batch: 19108

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 19037

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1109		mg/Kg		109	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	887.6		mg/Kg		89	70 - 130	13	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*78*		*70 - 130*
o-Terphenyl (Surr)	*75*		*70 - 130*

Lab Sample ID: MB 880-19054/1-A
Matrix: Solid
Analysis Batch: 19105

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19054

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		02/10/22 14:26	02/11/22 11:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 11:20	1
OIl Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:26	02/11/22 11:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*66*	*S1-*	*70 - 130*	*02/10/22 14:26*	*02/11/22 11:20*	*1*
o-Terphenyl (Surr)	*70*		*70 - 130*	*02/10/22 14:26*	*02/11/22 11:20*	*1*

Lab Sample ID: LCS 880-19054/2-A
Matrix: Solid
Analysis Batch: 19105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19054

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	931.2		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	944.2		mg/Kg		94	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-19054/2-A
Matrix: Solid
Analysis Batch: 19105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19054

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	96		70 - 130
o-Terphenyl (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-19054/3-A
Matrix: Solid
Analysis Batch: 19105

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19054

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	873.2		mg/Kg		87	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	882.7		mg/Kg		88	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	96		70 - 130
o-Terphenyl (Surr)	92		70 - 130

Lab Sample ID: 880-11152-1 MS
Matrix: Solid
Analysis Batch: 19105

Client Sample ID: S-1
Prep Type: Total/NA
Prep Batch: 19054

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	941.2		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	838.6		mg/Kg		84	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	70		70 - 130
o-Terphenyl (Surr)	61	S1-	70 - 130

Lab Sample ID: 880-11152-1 MSD
Matrix: Solid
Analysis Batch: 19105

Client Sample ID: S-1
Prep Type: Total/NA
Prep Batch: 19054

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	924.3		mg/Kg		93	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	860.0		mg/Kg		86	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	72		70 - 130
o-Terphenyl (Surr)	66	S1-	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-19055/1-A
Matrix: Solid
Analysis Batch: 19245

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19055

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		02/10/22 14:29	02/13/22 10:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/10/22 14:29	02/13/22 10:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/10/22 14:29	02/13/22 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*78*		*70 - 130*	*02/10/22 14:29*	*02/13/22 10:50*	*1*
o-Terphenyl (Surr)	*82*		*70 - 130*	*02/10/22 14:29*	*02/13/22 10:50*	*1*

Lab Sample ID: LCS 880-19055/2-A
Matrix: Solid
Analysis Batch: 19245

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19055

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	968.2		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	939.3		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*95*		*70 - 130*
o-Terphenyl (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-19055/3-A
Matrix: Solid
Analysis Batch: 19245

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19055

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1021		mg/Kg		102	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	1008		mg/Kg		101	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*106*		*70 - 130*
o-Terphenyl (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-11152-21 MS
Matrix: Solid
Analysis Batch: 19245

Client Sample ID: S-5
Prep Type: Total/NA
Prep Batch: 19055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1053		mg/Kg		103	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	883.9		mg/Kg		88	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: 880-11152-21 MS
Matrix: Solid
Analysis Batch: 19245

Client Sample ID: S-5
Prep Type: Total/NA
Prep Batch: 19055

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	63	S1-	70 - 130
o-Terphenyl (Surr)	63	S1-	70 - 130

Lab Sample ID: 880-11152-21 MSD
Matrix: Solid
Analysis Batch: 19245

Client Sample ID: S-5
Prep Type: Total/NA
Prep Batch: 19055

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1045		mg/Kg		102	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	905.8		mg/Kg		91	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	65	S1-	70 - 130
o-Terphenyl (Surr)	64	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19066/1-A
Matrix: Solid
Analysis Batch: 19472

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			02/15/22 22:41	1

Lab Sample ID: LCS 880-19066/2-A
Matrix: Solid
Analysis Batch: 19472

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	244.6		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-19066/3-A
Matrix: Solid
Analysis Batch: 19472

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	245.1		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 880-11152-3 MS
Matrix: Solid
Analysis Batch: 19472

Client Sample ID: S-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	73.8		249	343.1		mg/Kg		108	90 - 110		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-11152-3 MSD — **Client Sample ID: S-1**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19472

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	73.8		249	343.2		mg/Kg		108	90 - 110	0	20

Lab Sample ID: MB 880-19067/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19473

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/18/22 02:26	1

Lab Sample ID: LCS 880-19067/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19473

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	267.5		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-19067/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19473

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	262.7		mg/Kg		105	90 - 110	2	20

Lab Sample ID: 880-11152-13 MS — **Client Sample ID: S-3**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19473

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	7370		5050	12550		mg/Kg		103	90 - 110		

Lab Sample ID: 880-11152-13 MSD — **Client Sample ID: S-3**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19473

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7370		5050	12650		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 880-11152-23 MS — **Client Sample ID: S-5**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19473

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	696		249	941.7		mg/Kg		99	90 - 110		

Lab Sample ID: 880-11152-23 MSD — **Client Sample ID: S-5**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19473

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	696		249	944.5		mg/Kg		100	90 - 110	0	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19068/1-A
Matrix: Solid
Analysis Batch: 19479

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			02/18/22 09:11	1

Lab Sample ID: LCS 880-19068/2-A
Matrix: Solid
Analysis Batch: 19479

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	270.9		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-19068/3-A
Matrix: Solid
Analysis Batch: 19479

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	262.6		mg/Kg		105	90 - 110	3	20

Lab Sample ID: 880-11152-33 MS
Matrix: Solid
Analysis Batch: 19479

Client Sample ID: S-9
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2410	F1	1250	3684		mg/Kg		102	90 - 110		

Lab Sample ID: 880-11152-33 MSD
Matrix: Solid
Analysis Batch: 19479

Client Sample ID: S-9
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2410	F1	1250	3791	F1	mg/Kg		111	90 - 110	3	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC VOA

Prep Batch: 18969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-18969/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 19021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19021/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 19023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	5035	
880-11152-2	S-1	Total/NA	Solid	5035	
880-11152-3	S-1	Total/NA	Solid	5035	
880-11152-4	S-1	Total/NA	Solid	5035	
880-11152-5	S-1	Total/NA	Solid	5035	
880-11152-6	S-2	Total/NA	Solid	5035	
880-11152-7	S-2	Total/NA	Solid	5035	
880-11152-8	S-2	Total/NA	Solid	5035	
880-11152-9	S-2	Total/NA	Solid	5035	
880-11152-10	S-2	Total/NA	Solid	5035	
880-11152-11	S-3	Total/NA	Solid	5035	
880-11152-12	S-3	Total/NA	Solid	5035	
880-11152-13	S-3	Total/NA	Solid	5035	
880-11152-14	S-3	Total/NA	Solid	5035	
880-11152-15	S-3	Total/NA	Solid	5035	
880-11152-16	S-4	Total/NA	Solid	5035	
880-11152-17	S-4	Total/NA	Solid	5035	
880-11152-18	S-4	Total/NA	Solid	5035	
880-11152-19	S-4	Total/NA	Solid	5035	
880-11152-20	S-4	Total/NA	Solid	5035	
MB 880-19023/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19023/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19023/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11152-1 MS	S-1	Total/NA	Solid	5035	
880-11152-1 MSD	S-1	Total/NA	Solid	5035	

Analysis Batch: 19027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-29	S-7	Total/NA	Solid	8021B	19034
880-11152-30	S-8	Total/NA	Solid	8021B	19034
MB 880-18969/5-A	Method Blank	Total/NA	Solid	8021B	18969
MB 880-19034/5-A	Method Blank	Total/NA	Solid	8021B	19034
LCS 880-19034/1-A	Lab Control Sample	Total/NA	Solid	8021B	19034
LCSD 880-19034/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19034
880-11151-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	19034
880-11151-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	19034

Prep Batch: 19034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-29	S-7	Total/NA	Solid	5035	
880-11152-30	S-8	Total/NA	Solid	5035	
MB 880-19034/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19034/1-A	Lab Control Sample	Total/NA	Solid	5035	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC VOA (Continued)

Prep Batch: 19034 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-19034/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11151-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-11151-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 19035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	5035	
880-11152-22	S-5	Total/NA	Solid	5035	
880-11152-23	S-5	Total/NA	Solid	5035	
880-11152-24	S-5	Total/NA	Solid	5035	
880-11152-25	S-5	Total/NA	Solid	5035	
880-11152-26	S-6	Total/NA	Solid	5035	
880-11152-27	S-6	Total/NA	Solid	5035	
880-11152-28	S-7	Total/NA	Solid	5035	
MB 880-19035/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19035/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19035/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 19036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-31	S-8	Total/NA	Solid	5035	
880-11152-32	S-9	Total/NA	Solid	5035	
880-11152-33	S-9	Total/NA	Solid	5035	
MB 880-19036/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19036/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19036/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11152-31 MS	S-8	Total/NA	Solid	5035	
880-11152-31 MSD	S-8	Total/NA	Solid	5035	

Analysis Batch: 19116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	8021B	19035
880-11152-22	S-5	Total/NA	Solid	8021B	19035
880-11152-23	S-5	Total/NA	Solid	8021B	19035
880-11152-24	S-5	Total/NA	Solid	8021B	19035
880-11152-25	S-5	Total/NA	Solid	8021B	19035
880-11152-26	S-6	Total/NA	Solid	8021B	19035
880-11152-27	S-6	Total/NA	Solid	8021B	19035
880-11152-28	S-7	Total/NA	Solid	8021B	19035
880-11152-31	S-8	Total/NA	Solid	8021B	19036
880-11152-32	S-9	Total/NA	Solid	8021B	19036
880-11152-33	S-9	Total/NA	Solid	8021B	19036
MB 880-19035/5-A	Method Blank	Total/NA	Solid	8021B	19035
MB 880-19036/5-A	Method Blank	Total/NA	Solid	8021B	19036
LCS 880-19035/1-A	Lab Control Sample	Total/NA	Solid	8021B	19035
LCS 880-19036/1-A	Lab Control Sample	Total/NA	Solid	8021B	19036
LCSD 880-19035/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19035
LCSD 880-19036/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19036
880-11152-31 MS	S-8	Total/NA	Solid	8021B	19036
880-11152-31 MSD	S-8	Total/NA	Solid	8021B	19036

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC VOA

Analysis Batch: 19117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	8021B	19023
880-11152-2	S-1	Total/NA	Solid	8021B	19023
880-11152-3	S-1	Total/NA	Solid	8021B	19023
880-11152-4	S-1	Total/NA	Solid	8021B	19023
880-11152-5	S-1	Total/NA	Solid	8021B	19023
880-11152-6	S-2	Total/NA	Solid	8021B	19023
880-11152-7	S-2	Total/NA	Solid	8021B	19023
880-11152-8	S-2	Total/NA	Solid	8021B	19023
880-11152-9	S-2	Total/NA	Solid	8021B	19023
880-11152-10	S-2	Total/NA	Solid	8021B	19023
880-11152-11	S-3	Total/NA	Solid	8021B	19023
880-11152-12	S-3	Total/NA	Solid	8021B	19023
880-11152-13	S-3	Total/NA	Solid	8021B	19023
880-11152-14	S-3	Total/NA	Solid	8021B	19023
880-11152-15	S-3	Total/NA	Solid	8021B	19023
880-11152-16	S-4	Total/NA	Solid	8021B	19023
880-11152-17	S-4	Total/NA	Solid	8021B	19023
880-11152-18	S-4	Total/NA	Solid	8021B	19023
880-11152-19	S-4	Total/NA	Solid	8021B	19023
880-11152-20	S-4	Total/NA	Solid	8021B	19023
MB 880-19021/5-A	Method Blank	Total/NA	Solid	8021B	19021
MB 880-19023/5-A	Method Blank	Total/NA	Solid	8021B	19023
LCS 880-19023/1-A	Lab Control Sample	Total/NA	Solid	8021B	19023
LCSD 880-19023/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19023
880-11152-1 MS	S-1	Total/NA	Solid	8021B	19023
880-11152-1 MSD	S-1	Total/NA	Solid	8021B	19023

Analysis Batch: 19290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-29	S-7	Total/NA	Solid	Total BTEX	
880-11152-30	S-8	Total/NA	Solid	Total BTEX	

Analysis Batch: 19331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	Total BTEX	
880-11152-2	S-1	Total/NA	Solid	Total BTEX	
880-11152-3	S-1	Total/NA	Solid	Total BTEX	
880-11152-4	S-1	Total/NA	Solid	Total BTEX	
880-11152-5	S-1	Total/NA	Solid	Total BTEX	
880-11152-6	S-2	Total/NA	Solid	Total BTEX	
880-11152-7	S-2	Total/NA	Solid	Total BTEX	
880-11152-8	S-2	Total/NA	Solid	Total BTEX	
880-11152-9	S-2	Total/NA	Solid	Total BTEX	
880-11152-10	S-2	Total/NA	Solid	Total BTEX	
880-11152-11	S-3	Total/NA	Solid	Total BTEX	
880-11152-12	S-3	Total/NA	Solid	Total BTEX	
880-11152-13	S-3	Total/NA	Solid	Total BTEX	
880-11152-14	S-3	Total/NA	Solid	Total BTEX	
880-11152-15	S-3	Total/NA	Solid	Total BTEX	
880-11152-16	S-4	Total/NA	Solid	Total BTEX	
880-11152-17	S-4	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

GC VOA (Continued)

Analysis Batch: 19331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-18	S-4	Total/NA	Solid	Total BTEX	
880-11152-19	S-4	Total/NA	Solid	Total BTEX	
880-11152-20	S-4	Total/NA	Solid	Total BTEX	

Analysis Batch: 19350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	Total BTEX	
880-11152-22	S-5	Total/NA	Solid	Total BTEX	
880-11152-23	S-5	Total/NA	Solid	Total BTEX	
880-11152-24	S-5	Total/NA	Solid	Total BTEX	
880-11152-25	S-5	Total/NA	Solid	Total BTEX	
880-11152-26	S-6	Total/NA	Solid	Total BTEX	
880-11152-27	S-6	Total/NA	Solid	Total BTEX	
880-11152-28	S-7	Total/NA	Solid	Total BTEX	
880-11152-31	S-8	Total/NA	Solid	Total BTEX	
880-11152-32	S-9	Total/NA	Solid	Total BTEX	
880-11152-33	S-9	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-33	S-9	Total/NA	Solid	8015NM Prep	
MB 880-19037/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19037/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19037/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11144-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11144-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 19054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	8015NM Prep	
880-11152-2	S-1	Total/NA	Solid	8015NM Prep	
880-11152-3	S-1	Total/NA	Solid	8015NM Prep	
880-11152-4	S-1	Total/NA	Solid	8015NM Prep	
880-11152-5	S-1	Total/NA	Solid	8015NM Prep	
880-11152-6	S-2	Total/NA	Solid	8015NM Prep	
880-11152-7	S-2	Total/NA	Solid	8015NM Prep	
880-11152-8	S-2	Total/NA	Solid	8015NM Prep	
880-11152-9	S-2	Total/NA	Solid	8015NM Prep	
880-11152-10	S-2	Total/NA	Solid	8015NM Prep	
880-11152-11	S-3	Total/NA	Solid	8015NM Prep	
880-11152-12	S-3	Total/NA	Solid	8015NM Prep	
880-11152-13	S-3	Total/NA	Solid	8015NM Prep	
880-11152-14	S-3	Total/NA	Solid	8015NM Prep	
880-11152-15	S-3	Total/NA	Solid	8015NM Prep	
880-11152-16	S-4	Total/NA	Solid	8015NM Prep	
880-11152-17	S-4	Total/NA	Solid	8015NM Prep	
880-11152-18	S-4	Total/NA	Solid	8015NM Prep	
880-11152-19	S-4	Total/NA	Solid	8015NM Prep	
880-11152-20	S-4	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

GC Semi VOA (Continued)

Prep Batch: 19054 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19054/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19054/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19054/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11152-1 MS	S-1	Total/NA	Solid	8015NM Prep	
880-11152-1 MSD	S-1	Total/NA	Solid	8015NM Prep	

Prep Batch: 19055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	8015NM Prep	
880-11152-22	S-5	Total/NA	Solid	8015NM Prep	
880-11152-23	S-5	Total/NA	Solid	8015NM Prep	
880-11152-24	S-5	Total/NA	Solid	8015NM Prep	
880-11152-25	S-5	Total/NA	Solid	8015NM Prep	
880-11152-26	S-6	Total/NA	Solid	8015NM Prep	
880-11152-27	S-6	Total/NA	Solid	8015NM Prep	
880-11152-28	S-7	Total/NA	Solid	8015NM Prep	
880-11152-29	S-7	Total/NA	Solid	8015NM Prep	
880-11152-30	S-8	Total/NA	Solid	8015NM Prep	
880-11152-31	S-8	Total/NA	Solid	8015NM Prep	
880-11152-32	S-9	Total/NA	Solid	8015NM Prep	
MB 880-19055/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19055/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19055/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11152-21 MS	S-5	Total/NA	Solid	8015NM Prep	
880-11152-21 MSD	S-5	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	8015B NM	19054
880-11152-2	S-1	Total/NA	Solid	8015B NM	19054
880-11152-3	S-1	Total/NA	Solid	8015B NM	19054
880-11152-4	S-1	Total/NA	Solid	8015B NM	19054
880-11152-5	S-1	Total/NA	Solid	8015B NM	19054
880-11152-6	S-2	Total/NA	Solid	8015B NM	19054
880-11152-7	S-2	Total/NA	Solid	8015B NM	19054
880-11152-8	S-2	Total/NA	Solid	8015B NM	19054
880-11152-9	S-2	Total/NA	Solid	8015B NM	19054
880-11152-10	S-2	Total/NA	Solid	8015B NM	19054
880-11152-11	S-3	Total/NA	Solid	8015B NM	19054
880-11152-12	S-3	Total/NA	Solid	8015B NM	19054
880-11152-13	S-3	Total/NA	Solid	8015B NM	19054
880-11152-14	S-3	Total/NA	Solid	8015B NM	19054
880-11152-15	S-3	Total/NA	Solid	8015B NM	19054
880-11152-16	S-4	Total/NA	Solid	8015B NM	19054
880-11152-17	S-4	Total/NA	Solid	8015B NM	19054
880-11152-18	S-4	Total/NA	Solid	8015B NM	19054
880-11152-19	S-4	Total/NA	Solid	8015B NM	19054
880-11152-20	S-4	Total/NA	Solid	8015B NM	19054
MB 880-19054/1-A	Method Blank	Total/NA	Solid	8015B NM	19054
LCS 880-19054/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19054
LCSD 880-19054/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19054

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Analysis Batch: 19105 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1 MS	S-1	Total/NA	Solid	8015B NM	19054
880-11152-1 MSD	S-1	Total/NA	Solid	8015B NM	19054

Analysis Batch: 19108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-33	S-9	Total/NA	Solid	8015B NM	19037
MB 880-19037/1-A	Method Blank	Total/NA	Solid	8015B NM	19037
LCS 880-19037/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19037
LCSD 880-19037/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19037
880-11144-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	19037
880-11144-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19037

Analysis Batch: 19245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	8015B NM	19055
880-11152-22	S-5	Total/NA	Solid	8015B NM	19055
880-11152-23	S-5	Total/NA	Solid	8015B NM	19055
880-11152-24	S-5	Total/NA	Solid	8015B NM	19055
880-11152-25	S-5	Total/NA	Solid	8015B NM	19055
880-11152-26	S-6	Total/NA	Solid	8015B NM	19055
880-11152-27	S-6	Total/NA	Solid	8015B NM	19055
880-11152-28	S-7	Total/NA	Solid	8015B NM	19055
880-11152-29	S-7	Total/NA	Solid	8015B NM	19055
880-11152-30	S-8	Total/NA	Solid	8015B NM	19055
880-11152-31	S-8	Total/NA	Solid	8015B NM	19055
880-11152-32	S-9	Total/NA	Solid	8015B NM	19055
MB 880-19055/1-A	Method Blank	Total/NA	Solid	8015B NM	19055
LCS 880-19055/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19055
LCSD 880-19055/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19055
880-11152-21 MS	S-5	Total/NA	Solid	8015B NM	19055
880-11152-21 MSD	S-5	Total/NA	Solid	8015B NM	19055

Analysis Batch: 19503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	8015 NM	
880-11152-22	S-5	Total/NA	Solid	8015 NM	
880-11152-23	S-5	Total/NA	Solid	8015 NM	
880-11152-24	S-5	Total/NA	Solid	8015 NM	
880-11152-25	S-5	Total/NA	Solid	8015 NM	
880-11152-26	S-6	Total/NA	Solid	8015 NM	
880-11152-27	S-6	Total/NA	Solid	8015 NM	
880-11152-28	S-7	Total/NA	Solid	8015 NM	
880-11152-29	S-7	Total/NA	Solid	8015 NM	
880-11152-30	S-8	Total/NA	Solid	8015 NM	
880-11152-31	S-8	Total/NA	Solid	8015 NM	
880-11152-32	S-9	Total/NA	Solid	8015 NM	

Analysis Batch: 19741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	8015 NM	
880-11152-2	S-1	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Analysis Batch: 19741 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-3	S-1	Total/NA	Solid	8015 NM	
880-11152-4	S-1	Total/NA	Solid	8015 NM	
880-11152-5	S-1	Total/NA	Solid	8015 NM	
880-11152-6	S-2	Total/NA	Solid	8015 NM	
880-11152-7	S-2	Total/NA	Solid	8015 NM	
880-11152-8	S-2	Total/NA	Solid	8015 NM	
880-11152-9	S-2	Total/NA	Solid	8015 NM	
880-11152-10	S-2	Total/NA	Solid	8015 NM	
880-11152-11	S-3	Total/NA	Solid	8015 NM	
880-11152-12	S-3	Total/NA	Solid	8015 NM	
880-11152-13	S-3	Total/NA	Solid	8015 NM	
880-11152-14	S-3	Total/NA	Solid	8015 NM	
880-11152-15	S-3	Total/NA	Solid	8015 NM	
880-11152-16	S-4	Total/NA	Solid	8015 NM	
880-11152-17	S-4	Total/NA	Solid	8015 NM	
880-11152-18	S-4	Total/NA	Solid	8015 NM	
880-11152-19	S-4	Total/NA	Solid	8015 NM	
880-11152-20	S-4	Total/NA	Solid	8015 NM	
880-11152-33	S-9	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Soluble	Solid	DI Leach	
880-11152-2	S-1	Soluble	Solid	DI Leach	
880-11152-3	S-1	Soluble	Solid	DI Leach	
880-11152-4	S-1	Soluble	Solid	DI Leach	
880-11152-5	S-1	Soluble	Solid	DI Leach	
880-11152-6	S-2	Soluble	Solid	DI Leach	
880-11152-7	S-2	Soluble	Solid	DI Leach	
880-11152-8	S-2	Soluble	Solid	DI Leach	
880-11152-9	S-2	Soluble	Solid	DI Leach	
880-11152-10	S-2	Soluble	Solid	DI Leach	
880-11152-11	S-3	Soluble	Solid	DI Leach	
880-11152-12	S-3	Soluble	Solid	DI Leach	
MB 880-19066/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19066/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19066/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11152-3 MS	S-1	Soluble	Solid	DI Leach	
880-11152-3 MSD	S-1	Soluble	Solid	DI Leach	

Leach Batch: 19067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-13	S-3	Soluble	Solid	DI Leach	
880-11152-14	S-3	Soluble	Solid	DI Leach	
880-11152-15	S-3	Soluble	Solid	DI Leach	
880-11152-16	S-4	Soluble	Solid	DI Leach	
880-11152-17	S-4	Soluble	Solid	DI Leach	
880-11152-18	S-4	Soluble	Solid	DI Leach	
880-11152-19	S-4	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

HPLC/IC (Continued)

Leach Batch: 19067 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-20	S-4	Soluble	Solid	DI Leach	
880-11152-21	S-5	Soluble	Solid	DI Leach	
880-11152-22	S-5	Soluble	Solid	DI Leach	
880-11152-23	S-5	Soluble	Solid	DI Leach	
880-11152-24	S-5	Soluble	Solid	DI Leach	
880-11152-25	S-5	Soluble	Solid	DI Leach	
880-11152-26	S-6	Soluble	Solid	DI Leach	
880-11152-27	S-6	Soluble	Solid	DI Leach	
880-11152-28	S-7	Soluble	Solid	DI Leach	
880-11152-29	S-7	Soluble	Solid	DI Leach	
880-11152-30	S-8	Soluble	Solid	DI Leach	
880-11152-31	S-8	Soluble	Solid	DI Leach	
880-11152-32	S-9	Soluble	Solid	DI Leach	
MB 880-19067/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19067/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19067/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11152-13 MS	S-3	Soluble	Solid	DI Leach	
880-11152-13 MSD	S-3	Soluble	Solid	DI Leach	
880-11152-23 MS	S-5	Soluble	Solid	DI Leach	
880-11152-23 MSD	S-5	Soluble	Solid	DI Leach	

Leach Batch: 19068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-33	S-9	Soluble	Solid	DI Leach	
MB 880-19068/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19068/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19068/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11152-33 MS	S-9	Soluble	Solid	DI Leach	
880-11152-33 MSD	S-9	Soluble	Solid	DI Leach	

Analysis Batch: 19472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Soluble	Solid	300.0	19066
880-11152-2	S-1	Soluble	Solid	300.0	19066
880-11152-3	S-1	Soluble	Solid	300.0	19066
880-11152-4	S-1	Soluble	Solid	300.0	19066
880-11152-5	S-1	Soluble	Solid	300.0	19066
880-11152-6	S-2	Soluble	Solid	300.0	19066
880-11152-7	S-2	Soluble	Solid	300.0	19066
880-11152-8	S-2	Soluble	Solid	300.0	19066
880-11152-9	S-2	Soluble	Solid	300.0	19066
880-11152-10	S-2	Soluble	Solid	300.0	19066
880-11152-11	S-3	Soluble	Solid	300.0	19066
880-11152-12	S-3	Soluble	Solid	300.0	19066
MB 880-19066/1-A	Method Blank	Soluble	Solid	300.0	19066
LCS 880-19066/2-A	Lab Control Sample	Soluble	Solid	300.0	19066
LCSD 880-19066/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19066
880-11152-3 MS	S-1	Soluble	Solid	300.0	19066
880-11152-3 MSD	S-1	Soluble	Solid	300.0	19066

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

HPLC/IC

Analysis Batch: 19473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-13	S-3	Soluble	Solid	300.0	19067
880-11152-14	S-3	Soluble	Solid	300.0	19067
880-11152-15	S-3	Soluble	Solid	300.0	19067
880-11152-16	S-4	Soluble	Solid	300.0	19067
880-11152-17	S-4	Soluble	Solid	300.0	19067
880-11152-18	S-4	Soluble	Solid	300.0	19067
880-11152-19	S-4	Soluble	Solid	300.0	19067
880-11152-20	S-4	Soluble	Solid	300.0	19067
880-11152-21	S-5	Soluble	Solid	300.0	19067
880-11152-22	S-5	Soluble	Solid	300.0	19067
880-11152-23	S-5	Soluble	Solid	300.0	19067
880-11152-24	S-5	Soluble	Solid	300.0	19067
880-11152-25	S-5	Soluble	Solid	300.0	19067
880-11152-26	S-6	Soluble	Solid	300.0	19067
880-11152-27	S-6	Soluble	Solid	300.0	19067
880-11152-28	S-7	Soluble	Solid	300.0	19067
880-11152-29	S-7	Soluble	Solid	300.0	19067
880-11152-30	S-8	Soluble	Solid	300.0	19067
880-11152-31	S-8	Soluble	Solid	300.0	19067
880-11152-32	S-9	Soluble	Solid	300.0	19067
MB 880-19067/1-A	Method Blank	Soluble	Solid	300.0	19067
LCS 880-19067/2-A	Lab Control Sample	Soluble	Solid	300.0	19067
LCSD 880-19067/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19067
880-11152-13 MS	S-3	Soluble	Solid	300.0	19067
880-11152-13 MSD	S-3	Soluble	Solid	300.0	19067
880-11152-23 MS	S-5	Soluble	Solid	300.0	19067
880-11152-23 MSD	S-5	Soluble	Solid	300.0	19067

Analysis Batch: 19479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-33	S-9	Soluble	Solid	300.0	19068
MB 880-19068/1-A	Method Blank	Soluble	Solid	300.0	19068
LCS 880-19068/2-A	Lab Control Sample	Soluble	Solid	300.0	19068
LCSD 880-19068/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19068
880-11152-33 MS	S-9	Soluble	Solid	300.0	19068
880-11152-33 MSD	S-9	Soluble	Solid	300.0	19068

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-1
Date Collected: 02/08/22 11:05
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 13:20	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 12:25	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		50			19472	02/16/22 00:53	CH	XEN MID

Client Sample ID: S-1
Date Collected: 02/08/22 11:10
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-2
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			5.00 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 13:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 15:03	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		5			19472	02/16/22 01:02	CH	XEN MID

Client Sample ID: S-1
Date Collected: 02/08/22 11:15
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-3
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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 14:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 15:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		1			19472	02/16/22 22:41	CH	XEN MID

Client Sample ID: S-1
Date Collected: 02/08/22 11:20
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 14:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-1
Date Collected: 02/08/22 11:20
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-4
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			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 15:45	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		1			19472	02/16/22 23:08	CH	XEN MID

Client Sample ID: S-1
Date Collected: 02/08/22 11:25
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-5
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			5.02 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 14:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 16:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		1			19472	02/16/22 23:17	CH	XEN MID

Client Sample ID: S-2
Date Collected: 02/08/22 11:30
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-6
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			5.00 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 15:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 16:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		20			19472	02/16/22 02:13	CH	XEN MID

Client Sample ID: S-2
Date Collected: 02/08/22 11:32
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-7
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			5.05 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 15:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 17:09	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-2
Date Collected: 02/08/22 11:32
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-7
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			4.97 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		10			19472	02/16/22 02:22	CH	XEN MID

Client Sample ID: S-2
Date Collected: 02/08/22 11:36
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-8
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			5.02 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 15:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 17:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		5			19472	02/16/22 02:31	CH	XEN MID

Client Sample ID: S-2
Date Collected: 02/08/22 11:38
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-9
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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 16:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 17:51	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		1			19472	02/16/22 02:40	CH	XEN MID

Client Sample ID: S-2
Date Collected: 02/08/22 11:40
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-10
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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 16:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 18:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		1			19472	02/16/22 02:48	CH	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-3
Date Collected: 02/08/22 11:45
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 18:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 18:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		20			19472	02/16/22 02:57	CH	XEN MID

Client Sample ID: S-3
Date Collected: 02/08/22 11:47
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 18:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 19:17	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		20			19472	02/16/22 03:06	CH	XEN MID

Client Sample ID: S-3
Date Collected: 02/08/22 11:50
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 18:55	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 19:38	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		20			19473	02/18/22 02:45	CH	XEN MID

Client Sample ID: S-3
Date Collected: 02/08/22 11:55
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 19:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-3
Date Collected: 02/08/22 11:55
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 19:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		10			19473	02/18/22 03:04	CH	XEN MID

Client Sample ID: S-3
Date Collected: 02/08/22 12:00
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-15
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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 19:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 20:19	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 03:10	CH	XEN MID

Client Sample ID: S-4
Date Collected: 02/08/22 12:17
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-16
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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 19:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 20:40	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		20			19473	02/18/22 03:17	CH	XEN MID

Client Sample ID: S-4
Date Collected: 02/08/22 12:20
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-17
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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 20:17	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 21:02	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-4
Date Collected: 02/08/22 12:20
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 03:23	CH	XEN MID

Client Sample ID: S-4
Date Collected: 02/08/22 12:22
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-18
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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 20:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 21:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		5			19473	02/18/22 03:42	CH	XEN MID

Client Sample ID: S-4
Date Collected: 02/08/22 12:25
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-19
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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 20:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 21:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		5			19473	02/18/22 03:48	CH	XEN MID

Client Sample ID: S-4
Date Collected: 02/08/22 12:27
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-20
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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 21:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 22:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 03:55	CH	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-5
Date Collected: 02/08/22 12:35
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-21
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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 03:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 11:55	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		20			19473	02/18/22 04:01	CH	XEN MID

Client Sample ID: S-5
Date Collected: 02/08/22 12:40
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-22
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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 04:04	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 12:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		5			19473	02/18/22 04:07	CH	XEN MID

Client Sample ID: S-5
Date Collected: 02/08/22 12:45
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-23
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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 04:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 13:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 04:14	CH	XEN MID

Client Sample ID: S-5
Date Collected: 02/08/22 12:50
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-24
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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 04:45	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-5
Date Collected: 02/08/22 12:50
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-24
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			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 13:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 04:33	CH	XEN MID

Client Sample ID: S-5
Date Collected: 02/08/22 13:00
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-25
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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 05:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 14:00	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 04:39	CH	XEN MID

Client Sample ID: S-6
Date Collected: 02/08/22 11:39
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-26
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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 05:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 14:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		10			19473	02/18/22 04:58	CH	XEN MID

Client Sample ID: S-6
Date Collected: 02/08/22 11:40
Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-27
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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 05:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 14:41	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-6

Lab Sample ID: 880-11152-27
Matrix: Solid
Date Collected: 02/08/22 11:40
Date Received: 02/10/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 05:05	CH	XEN MID

Client Sample ID: S-7

Lab Sample ID: 880-11152-28
Matrix: Solid
Date Collected: 02/08/22 11:45
Date Received: 02/10/22 09:00

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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 06:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 15:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 05:11	CH	XEN MID

Client Sample ID: S-7

Lab Sample ID: 880-11152-29
Matrix: Solid
Date Collected: 02/08/22 11:46
Date Received: 02/10/22 09:00

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	19034	02/10/22 11:07	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19027	02/12/22 06:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19290	02/14/22 08:59	MR	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 15:22	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 05:17	CH	XEN MID

Client Sample ID: S-8

Lab Sample ID: 880-11152-30
Matrix: Solid
Date Collected: 02/08/22 11:50
Date Received: 02/10/22 09:00

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	19034	02/10/22 11:07	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19027	02/12/22 07:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19290	02/14/22 08:59	MR	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 15:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		10			19473	02/18/22 05:24	CH	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-8

Lab Sample ID: 880-11152-31

Date Collected: 02/08/22 11:51
Matrix: Solid
Date Received: 02/10/22 09:00

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	19036	02/11/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 09:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 16:24	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		10			19473	02/18/22 05:30	CH	XEN MID

Client Sample ID: S-9

Lab Sample ID: 880-11152-32

Date Collected: 02/08/22 11:55
Matrix: Solid
Date Received: 02/10/22 09:00

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	19036	02/11/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 09:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 16:44	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 05:36	CH	XEN MID

Client Sample ID: S-9

Lab Sample ID: 880-11152-33

Date Collected: 02/08/22 11:56
Matrix: Solid
Date Received: 02/10/22 09:00

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	19036	02/11/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 10:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19037	02/10/22 11:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19108	02/12/22 05:17	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19068	02/10/22 15:45	CH	XEN MID
Soluble	Analysis	300.0		5			19479	02/18/22 09:30	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-11152-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-11152-1	S-1	Solid	02/08/22 11:05	02/10/22 09:00	0.5'
880-11152-2	S-1	Solid	02/08/22 11:10	02/10/22 09:00	1.0'
880-11152-3	S-1	Solid	02/08/22 11:15	02/10/22 09:00	2.0'
880-11152-4	S-1	Solid	02/08/22 11:20	02/10/22 09:00	3.0'
880-11152-5	S-1	Solid	02/08/22 11:25	02/10/22 09:00	4.5'
880-11152-6	S-2	Solid	02/08/22 11:30	02/10/22 09:00	0.5'
880-11152-7	S-2	Solid	02/08/22 11:32	02/10/22 09:00	1.0'
880-11152-8	S-2	Solid	02/08/22 11:36	02/10/22 09:00	2.0'
880-11152-9	S-2	Solid	02/08/22 11:38	02/10/22 09:00	3.0'
880-11152-10	S-2	Solid	02/08/22 11:40	02/10/22 09:00	4.5'
880-11152-11	S-3	Solid	02/08/22 11:45	02/10/22 09:00	0.5'
880-11152-12	S-3	Solid	02/08/22 11:47	02/10/22 09:00	1.0'
880-11152-13	S-3	Solid	02/08/22 11:50	02/10/22 09:00	2.0'
880-11152-14	S-3	Solid	02/08/22 11:55	02/10/22 09:00	3.0'
880-11152-15	S-3	Solid	02/08/22 12:00	02/10/22 09:00	4.5'
880-11152-16	S-4	Solid	02/08/22 12:17	02/10/22 09:00	0.5'
880-11152-17	S-4	Solid	02/08/22 12:20	02/10/22 09:00	1.0'
880-11152-18	S-4	Solid	02/08/22 12:22	02/10/22 09:00	2.0'
880-11152-19	S-4	Solid	02/08/22 12:25	02/10/22 09:00	3.0'
880-11152-20	S-4	Solid	02/08/22 12:27	02/10/22 09:00	4.5'
880-11152-21	S-5	Solid	02/08/22 12:35	02/10/22 09:00	0.5'
880-11152-22	S-5	Solid	02/08/22 12:40	02/10/22 09:00	1.0'
880-11152-23	S-5	Solid	02/08/22 12:45	02/10/22 09:00	2.0'
880-11152-24	S-5	Solid	02/08/22 12:50	02/10/22 09:00	3.0'
880-11152-25	S-5	Solid	02/08/22 13:00	02/10/22 09:00	4.5'
880-11152-26	S-6	Solid	02/08/22 11:39	02/10/22 09:00	0.5'
880-11152-27	S-6	Solid	02/08/22 11:40	02/10/22 09:00	1.0'
880-11152-28	S-7	Solid	02/08/22 11:45	02/10/22 09:00	0.5'
880-11152-29	S-7	Solid	02/08/22 11:46	02/10/22 09:00	1.0'
880-11152-30	S-8	Solid	02/08/22 11:50	02/10/22 09:00	0.5'
880-11152-31	S-8	Solid	02/08/22 11:51	02/10/22 09:00	1.0'
880-11152-32	S-9	Solid	02/08/22 11:55	02/10/22 09:00	0.5'
880-11152-33	S-9	Solid	02/08/22 11:56	02/10/22 09:00	1.0'

Page 112 of 472

No. 2265

11152 CHAIN-OF-CUSTODY

2/18/2022

Larson & Associates, Inc.
Environmental Consultants

507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 2/8/22 PAGE 1 OF 3

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Gravitas SWD

LAI PROJECT #: 22-0105-03 COLLECTOR: DSG + TP

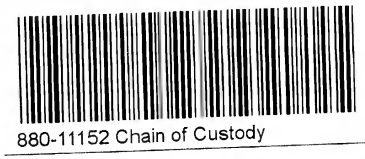
TRRP report? ☐ Yes ☒ No

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

TIME ZONE: Time zone/State: MST/NM

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ 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 ☐	CHLORIDE ☒	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
S-1 0.5'		2/8/22	1105	S	1				X		X		X	X	X																															
S-1 1.0'			1110																																											
S-1 2.0'			1115																																											
S-1 3.0'			1120																																											
S-1 4.5'			1125																																											
S-2 0.5'			1130																																											
S-2 1.0'			1132																																											
S-2 2.0'			1136																																											
S-2 3.0'			1138																																											
S-2 4.5'			1140																																											
S-3 0.5'			1145																																											
S-3 1.0'			1147																																											
S-3 2.0'			1150																																											
S-3 3.0'			1155																																											
S-3 4.5'			1200																																											

TOTAL 15



RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	2/10 9:00	[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: 1.2 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

Page 70 of 73

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

Page 113 of 472

No. 2266

11152 CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 2-8-22 PAGE 2 OF 3

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Gravitas SWD

LAI PROJECT #: 22-0105-03 COLLECTOR: DSG + TP

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 ☐	8062 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 ☐	CHLORIDE ☐	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
S-4 0.5'		2/8/22	1217	S	1				X		X		X		X	X	X																													
S-4 1.0'			1220																																										
S-4 2.0'			1222																																										
S-4 3.0'			1225																																										
S-4 4.5'			1227																																										
S-5 0.5'			1235																																										
S-5 1.0'			1240																																										
S-5 2.0'			1245																																										
S-5 3.0'			1250																																										
S-5 4.5'			1300																																										
S-6 0.5'			1139																																										
S-6 1.0'			1140																																										
S-7 0.5'			1145																																										
S-7 1.0'			1146																																										
S-8 0.5'			1150																																										
TOTAL 15																																													

RELINQUISHED BY:(Signature) Arnold Rollins DATE/TIME 2/10 9:00 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 X
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP. 1.2 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

2/18/2022

Page 114 of 472

No. 2267

11152

CHAIN-OF-CUSTODY

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

DATE: 2/8/22 PAGE 3 OF 3

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Gravitas swp

LAI PROJECT #: 22-0105-03 COLLECTOR: PS & TP

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, 6062 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, CHLORIDE, ANIONS, ALKALINITY

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4	NaOH	ICE	UNPRESSERVED	BTEX	MTBE	TRPH 418.1	TPH 1005	TPH 1006	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	VOC 8260	SVOC 8270	PAH 8270	HOLDPAH	8081 PESTICIDES	8151 HERBICIDES	6062 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	CHLORIDE	ANIONS	ALKALINITY	FIELD NOTES
S-8 1.0'		2/8/22	1151	S	1					X		X		X			X	X	X																															
S-9 0.5'		1	1155	S	1					X		X		X			X	X	X																															
S-9 1.0'		1	1156	S	1					X		X		X			X	X	X																															

TOTAL 3

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	2/10 9:00	[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. 1.2 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

2/18/2022

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-11152-1
SDG Number: 22-0105-03

Login Number: 11152
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 Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-12311-1
Laboratory Sample Delivery Group: 22-0105-03
Client Project/Site: Gravitas SWD

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

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
3/28/2022 10:40:51 AM

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

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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www.eurofinsus.com/Env

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

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Laboratory Job ID: 880-12311-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 16
QC Sample Results 18
QC Association Summary 24
Lab Chronicle 28
Certification Summary 33
Method Summary 34
Sample Summary 35
Chain of Custody 36
Receipt Checklists 37

Eurofins Midland
3/28/2022

Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Qualifiers

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
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: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Job ID: 880-12311-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12311-1

Comments
No additional comments.

Receipt
The samples were received on 3/10/2022 3:05 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 0.1º C.

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-21733 and analytical batch 880-21907 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 880-21732 and analytical batch 880-21846 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Toluene, Ethylbenzene, m,p-Xylenes, o-Xylene and Xylenes, Total in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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

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

General Chemistry
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-21601 and analytical batch 880-22135 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: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-8,1

Date Collected: 03/07/22 11:45
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 17:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 17:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 17:09	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 17:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 17:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/18/22 08:00*	*03/18/22 17:09*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/18/22 08:00*	*03/18/22 17:09*	*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			03/21/22 12:50	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/16/22 08:25	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	<49.8	U	49.8		mg/Kg		03/14/22 08:36	03/15/22 11:32	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/14/22 08:36	03/15/22 11:32	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/14/22 08:36	03/15/22 11:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*109*		*70 - 130*	*03/14/22 08:36*	*03/15/22 11:32*	*1*
o-Terphenyl (Surr)	*113*		*70 - 130*	*03/14/22 08:36*	*03/15/22 11:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2810**		49.6		mg/Kg			03/25/22 15:20	10

Client Sample ID: S-8,3

Date Collected: 03/07/22 11:46
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/18/22 08:00	03/18/22 17:29	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/18/22 08:00	03/18/22 17:29	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/18/22 08:00	03/18/22 17:29	1
m,p-Xylenes	<0.00397	U	0.00397		mg/Kg		03/18/22 08:00	03/18/22 17:29	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/18/22 08:00	03/18/22 17:29	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/18/22 08:00	03/18/22 17:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/18/22 08:00*	*03/18/22 17:29*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/18/22 08:00*	*03/18/22 17:29*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-8,3

Date Collected: 03/07/22 11:46
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-2

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 12:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 12:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*103*		*70 - 130*	*03/14/22 08:36*	*03/15/22 12:38*	*1*
o-Terphenyl (Surr)	*107*		*70 - 130*	*03/14/22 08:36*	*03/15/22 12:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**810**		5.04		mg/Kg			03/25/22 15:29	1

Client Sample ID: S-8,5

Date Collected: 03/07/22 11:47
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-3

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		03/18/22 08:00	03/18/22 17:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/18/22 08:00	03/18/22 17:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/18/22 08:00	03/18/22 17:50	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		03/18/22 08:00	03/18/22 17:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/18/22 08:00	03/18/22 17:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/18/22 08:00	03/18/22 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/18/22 08:00*	*03/18/22 17:50*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/18/22 08:00*	*03/18/22 17:50*	*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			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 12:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:36	03/15/22 12:59	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-8,5

Date Collected: 03/07/22 11:47
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-3

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		03/14/22 08:36	03/15/22 12:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*92*		*70 - 130*	*03/14/22 08:36*	*03/15/22 12:59*	*1*
o-Terphenyl (Surr)	*94*		*70 - 130*	*03/14/22 08:36*	*03/15/22 12:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.5**		5.00		mg/Kg			03/25/22 15:38	1

Client Sample ID: S-8,10

Date Collected: 03/07/22 11:49
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-4

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		03/18/22 08:00	03/18/22 18:10	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 18:10	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 18:10	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		03/18/22 08:00	03/18/22 18:10	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 18:10	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/18/22 08:00	03/18/22 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/18/22 08:00*	*03/18/22 18:10*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/18/22 08:00*	*03/18/22 18:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/21/22 12:50	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/16/22 08:25	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	<49.8	U	49.8		mg/Kg		03/14/22 08:36	03/15/22 13:20	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/14/22 08:36	03/15/22 13:20	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/14/22 08:36	03/15/22 13:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*92*		*70 - 130*	*03/14/22 08:36*	*03/15/22 13:20*	*1*
o-Terphenyl (Surr)	*87*		*70 - 130*	*03/14/22 08:36*	*03/15/22 13:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**73.0**		4.99		mg/Kg			03/25/22 15:47	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-12,0.5

Date Collected: 03/07/22 12:40
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-5

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		03/18/22 08:00	03/18/22 18:31	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 18:31	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 18:31	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		03/18/22 08:00	03/18/22 18:31	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 18:31	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/18/22 08:00	03/18/22 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/18/22 08:00*	*03/18/22 18:31*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/18/22 08:00*	*03/18/22 18:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 13:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 13:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*87*		*70 - 130*	*03/14/22 08:36*	*03/15/22 13:41*	*1*
o-Terphenyl (Surr)	*85*		*70 - 130*	*03/14/22 08:36*	*03/15/22 13:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**217**	**F1**	4.97		mg/Kg			03/25/22 16:01	1

Client Sample ID: S-12,1

Date Collected: 03/07/22 12:41
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-6

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		03/18/22 08:00	03/18/22 18:51	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 18:51	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 18:51	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		03/18/22 08:00	03/18/22 18:51	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 18:51	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/18/22 08:00	03/18/22 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/18/22 08:00*	*03/18/22 18:51*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*03/18/22 08:00*	*03/18/22 18:51*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-12,1

Date Collected: 03/07/22 12:41
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-6
Matrix: Solid

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			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 14:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 14:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*94*		*70 - 130*	*03/14/22 08:36*	*03/15/22 14:02*	*1*
o-Terphenyl (Surr)	*96*		*70 - 130*	*03/14/22 08:36*	*03/15/22 14:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1140		4.97		mg/Kg			03/25/22 16:28	1

Client Sample ID: S-9,5

Date Collected: 03/07/22 13:10
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-7
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		03/17/22 13:09	03/18/22 22:07	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 22:07	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 22:07	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/17/22 13:09	03/18/22 22:07	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 22:07	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/17/22 13:09	03/18/22 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*03/17/22 13:09*	*03/18/22 22:07*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*03/17/22 13:09*	*03/18/22 22:07*	*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			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 14:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:36	03/15/22 14:23	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-9,5

Date Collected: 03/07/22 13:10
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-7

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		03/14/22 08:36	03/15/22 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*90*		*70 - 130*	*03/14/22 08:36*	*03/15/22 14:23*	*1*
o-Terphenyl (Surr)	*89*		*70 - 130*	*03/14/22 08:36*	*03/15/22 14:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36.3**		4.98		mg/Kg			03/25/22 16:37	1

Client Sample ID: S-9,3

Date Collected: 03/07/22 13:11
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-8

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		03/17/22 13:09	03/18/22 22:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 22:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 22:28	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/17/22 13:09	03/18/22 22:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 22:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/17/22 13:09	03/18/22 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/17/22 13:09*	*03/18/22 22:28*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*03/17/22 13:09*	*03/18/22 22:28*	*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			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 14:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 14:44	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*90*		*70 - 130*	*03/14/22 08:36*	*03/15/22 14:44*	*1*
o-Terphenyl (Surr)	*91*		*70 - 130*	*03/14/22 08:36*	*03/15/22 14:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.21**		4.95		mg/Kg			03/25/22 17:03	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-9,5

Date Collected: 03/07/22 13:12
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-9

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		03/17/22 13:09	03/18/22 22:49	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 22:49	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 22:49	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/17/22 13:09	03/18/22 22:49	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 22:49	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/17/22 13:09	03/18/22 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/17/22 13:09*	*03/18/22 22:49*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*03/17/22 13:09*	*03/18/22 22:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 15:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 15:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*103*		*70 - 130*	*03/14/22 08:36*	*03/15/22 15:04*	*1*
o-Terphenyl (Surr)	*104*		*70 - 130*	*03/14/22 08:36*	*03/15/22 15:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01		mg/Kg			03/25/22 17:12	1

Client Sample ID: S-9,10

Date Collected: 03/07/22 13:13
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-10

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		03/17/22 13:09	03/18/22 23:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 23:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 23:10	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		03/17/22 13:09	03/18/22 23:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 23:10	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/17/22 13:09	03/18/22 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/17/22 13:09*	*03/18/22 23:10*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*03/17/22 13:09*	*03/18/22 23:10*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-9,10

Date Collected: 03/07/22 13:13
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-10

Matrix: Solid

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			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 15:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:36	03/15/22 15:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/14/22 08:36	03/15/22 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*102*		*70 - 130*	*03/14/22 08:36*	*03/15/22 15:25*	*1*
o-Terphenyl (Surr)	*104*		*70 - 130*	*03/14/22 08:36*	*03/15/22 15:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			03/25/22 17:21	1

Client Sample ID: S-10,0.5

Date Collected: 03/07/22 13:50
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-11

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		03/17/22 13:09	03/18/22 23:31	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/17/22 13:09	03/18/22 23:31	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/17/22 13:09	03/18/22 23:31	1
m,p-Xylenes	<0.00397	U	0.00397		mg/Kg		03/17/22 13:09	03/18/22 23:31	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/17/22 13:09	03/18/22 23:31	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/17/22 13:09	03/18/22 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*03/17/22 13:09*	*03/18/22 23:31*	*1*
1,4-Difluorobenzene (Surr)	*44*	*S1-*	*70 - 130*	*03/17/22 13:09*	*03/18/22 23:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 16:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 16:07	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-10,0.5

Date Collected: 03/07/22 13:50
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-11
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)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*90*		*70 - 130*	*03/14/22 08:36*	*03/15/22 16:07*	*1*
o-Terphenyl (Surr)	*92*		*70 - 130*	*03/14/22 08:36*	*03/15/22 16:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.9**		5.00		mg/Kg			03/25/22 17:30	1

Client Sample ID: S-10,1

Date Collected: 03/07/22 13:51
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-12
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		03/17/22 13:09	03/18/22 23:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 23:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 23:51	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/17/22 13:09	03/18/22 23:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 23:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/17/22 13:09	03/18/22 23:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/17/22 13:09*	*03/18/22 23:51*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*03/17/22 13:09*	*03/18/22 23:51*	*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			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 16:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 16:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 16:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*107*		*70 - 130*	*03/14/22 08:36*	*03/15/22 16:28*	*1*
o-Terphenyl (Surr)	*112*		*70 - 130*	*03/14/22 08:36*	*03/15/22 16:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.2**		4.99		mg/Kg			03/25/22 17:39	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-11,0.5

Date Collected: 03/07/22 14:20
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-13

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		03/17/22 13:09	03/19/22 00:12	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/17/22 13:09	03/19/22 00:12	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/17/22 13:09	03/19/22 00:12	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		03/17/22 13:09	03/19/22 00:12	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/17/22 13:09	03/19/22 00:12	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/17/22 13:09	03/19/22 00:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/17/22 13:09*	*03/19/22 00:12*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*03/17/22 13:09*	*03/19/22 00:12*	*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			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 16:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 16:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*92*		*70 - 130*	*03/14/22 08:36*	*03/15/22 16:49*	*1*
o-Terphenyl (Surr)	*89*		*70 - 130*	*03/14/22 08:36*	*03/15/22 16:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.6**		4.98		mg/Kg			03/25/22 18:26	1

Client Sample ID: S-11,1

Date Collected: 03/07/22 14:21
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-14

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		03/17/22 13:09	03/19/22 01:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/19/22 01:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/19/22 01:37	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		03/17/22 13:09	03/19/22 01:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/19/22 01:37	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/17/22 13:09	03/19/22 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*03/17/22 13:09*	*03/19/22 01:37*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*03/17/22 13:09*	*03/19/22 01:37*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-11,1

Date Collected: 03/07/22 14:21
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-14

Matrix: Solid

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			03/21/22 12:50	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			03/16/22 08:25	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		03/14/22 08:36	03/15/22 17:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:36	03/15/22 17:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/14/22 08:36	03/15/22 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*95*		*70 - 130*	*03/14/22 08:36*	*03/15/22 17:10*	*1*
o-Terphenyl (Surr)	*99*		*70 - 130*	*03/14/22 08:36*	*03/15/22 17:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**40.6**		4.97		mg/Kg			03/25/22 18:43	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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)
880-12309-A-1-K MS	Matrix Spike	96	93
880-12309-A-1-L MSD	Matrix Spike Duplicate	105	94
880-12311-1	S-8,1	106	104
880-12311-2	S-8,3	107	110
880-12311-3	S-8,5	105	108
880-12311-4	S-8,10	108	109
880-12311-5	S-12,0.5	108	104
880-12311-6	S-12,1	107	112
880-12311-7	S-9,5	98	119
880-12311-8	S-9,3	107	117
880-12311-9	S-9,5	103	115
880-12311-10	S-9,10	102	117
880-12311-11	S-10,0.5	100	44 S1-
880-12311-12	S-10,1	101	113
880-12311-13	S-11,0.5	105	116
880-12311-14	S-11,1	95	112
880-12543-A-2-A MS	Matrix Spike	306 S1+	101
880-12543-A-2-B MSD	Matrix Spike Duplicate	252 S1+	107
LCS 880-21732/1-A	Lab Control Sample	101	110
LCS 880-21733/1-A	Lab Control Sample	97	105
LCSD 880-21732/2-A	Lab Control Sample Dup	102	110
LCSD 880-21733/2-A	Lab Control Sample Dup	100	98
MB 880-21732/5-A	Method Blank	101	104
MB 880-21733/5-A	Method Blank	103	103

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)
880-12311-1	S-8,1	109	113
880-12311-1 MS	S-8,1	103	96
880-12311-1 MSD	S-8,1	106	96
880-12311-2	S-8,3	103	107
880-12311-3	S-8,5	92	94
880-12311-4	S-8,10	92	87
880-12311-5	S-12,0.5	87	85
880-12311-6	S-12,1	94	96
880-12311-7	S-9,5	90	89
880-12311-8	S-9,3	90	91
880-12311-9	S-9,5	103	104
880-12311-10	S-9,10	102	104
880-12311-11	S-10,0.5	90	92
880-12311-12	S-10,1	107	112
880-12311-13	S-11,0.5	92	89

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-12311-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
880-12311-14	S-11,1	95	99								
LCS 880-21467/2-A	Lab Control Sample	97	105								
LCSD 880-21467/3-A	Lab Control Sample Dup	104	110								
MB 880-21467/1-A	Method Blank	107	117								

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21732/5-A
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21732

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 10:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/18/22 08:00*	*03/18/22 10:33*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/18/22 08:00*	*03/18/22 10:33*	*1*

Lab Sample ID: LCS 880-21732/1-A
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21732

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09946		mg/Kg		99	70 - 130		
Toluene			0.100	0.09811		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.09914		mg/Kg		99	70 - 130		
m,p-Xylenes			0.200	0.2039		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.1001		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 880-21732/2-A
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21732

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09832		mg/Kg		98	70 - 130	1	35
Toluene			0.100	0.09691		mg/Kg		97	70 - 130	1	35
Ethylbenzene			0.100	0.09797		mg/Kg		98	70 - 130	1	35
m,p-Xylenes			0.200	0.2022		mg/Kg		101	70 - 130	1	35
o-Xylene			0.100	0.09968		mg/Kg		100	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 880-12543-A-2-A MS
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21732

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	0.00630		0.0990	0.08332		mg/Kg		78	70 - 130		
Toluene	0.341	F1	0.0990	0.8502	E F1	mg/Kg		514	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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

Lab Sample ID: 880-12543-A-2-A MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21846 — **Prep Batch: 21732**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.148	F1	0.0990	0.3497	F1	mg/Kg		204	70 - 130
m,p-Xylenes	1.52	E	0.198	2.444	E 4	mg/Kg		469	70 - 130
o-Xylene	0.383	F1	0.0990	0.7030	E F1	mg/Kg		323	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*306*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-12543-A-2-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21846 — **Prep Batch: 21732**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00630		0.100	0.09134		mg/Kg		85	70 - 130	9	35
Toluene	0.341	F1	0.100	1.085	E F1	mg/Kg		742	70 - 130	24	35
Ethylbenzene	0.148	F1	0.100	0.4097	E F1	mg/Kg		262	70 - 130	16	35
m,p-Xylenes	1.52	E	0.200	3.003	E 4	mg/Kg		742	70 - 130	21	35
o-Xylene	0.383	F1	0.100	0.8516	E F1	mg/Kg		468	70 - 130	19	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*252*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: MB 880-21733/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21907 — **Prep Batch: 21733**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/18/22 20:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/18/22 20:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/18/22 20:43	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		03/17/22 13:09	03/18/22 20:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/18/22 20:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/17/22 13:09	03/18/22 20:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/17/22 13:09*	*03/18/22 20:43*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/17/22 13:09*	*03/18/22 20:43*	*1*

Lab Sample ID: LCS 880-21733/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21907 — **Prep Batch: 21733**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09847		mg/Kg		98	70 - 130
Toluene	0.100	0.09238		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.09551		mg/Kg		96	70 - 130
m,p-Xylenes	0.200	0.1977		mg/Kg		99	70 - 130

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-21733/1-A
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21733

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.09676		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-21733/2-A
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21733

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08554		mg/Kg		86	70 - 130	14	35
Toluene			0.100	0.09210		mg/Kg		92	70 - 130	0	35
Ethylbenzene			0.100	0.09813		mg/Kg		98	70 - 130	3	35
m,p-Xylenes			0.200	0.2075		mg/Kg		104	70 - 130	5	35
o-Xylene			0.100	0.1022		mg/Kg		102	70 - 130	6	35

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

Lab Sample ID: 880-12309-A-1-K MS
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21733

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U F1	0.100	0.06063	F1	mg/Kg		61	70 - 130		
Toluene	<0.00200	U F1	0.100	0.06296	F1	mg/Kg		63	70 - 130		
Ethylbenzene	<0.00200	U F1	0.100	0.06414	F1	mg/Kg		64	70 - 130		
m,p-Xylenes	<0.00399	U F1	0.200	0.1365	F1	mg/Kg		68	70 - 130		
o-Xylene	<0.00200	U	0.100	0.06952		mg/Kg		70	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 880-12309-A-1-L MSD
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21733

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0998	0.06647	F1	mg/Kg		67	70 - 130	9	35
Toluene	<0.00200	U F1	0.0998	0.06842	F1	mg/Kg		69	70 - 130	8	35
Ethylbenzene	<0.00200	U F1	0.0998	0.06932	F1	mg/Kg		69	70 - 130	8	35
m,p-Xylenes	<0.00399	U F1	0.200	0.1472		mg/Kg		74	70 - 130	8	35
o-Xylene	<0.00200	U	0.0998	0.07573		mg/Kg		76	70 - 130	9	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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

Lab Sample ID: 880-12309-A-1-L MSD
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21733

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

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

Lab Sample ID: MB 880-21467/1-A
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21467

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		03/14/22 08:36	03/15/22 10:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 10:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 10:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	107		70 - 130	03/14/22 08:36	03/15/22 10:25	1
o-Terphenyl (Surr)	117		70 - 130	03/14/22 08:36	03/15/22 10:25	1

Lab Sample ID: LCS 880-21467/2-A
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21467

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	837.3		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	918.7		mg/Kg		92	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	97		70 - 130
o-Terphenyl (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-21467/3-A
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21467

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	867.7		mg/Kg		87	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1045		mg/Kg		104	70 - 130	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	104		70 - 130
o-Terphenyl (Surr)	110		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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

Lab Sample ID: 880-12311-1 MS
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: S-8,1
Prep Type: Total/NA
Prep Batch: 21467

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	967.9		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	998	952.5		mg/Kg		95	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*103*		*70 - 130*
o-Terphenyl (Surr)	*96*		*70 - 130*

Lab Sample ID: 880-12311-1 MSD
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: S-8,1
Prep Type: Total/NA
Prep Batch: 21467

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	<49.8	U	998	1045		mg/Kg		103	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<49.8	U	998	976.3		mg/Kg		98	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*106*		*70 - 130*
o-Terphenyl (Surr)	*96*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21601/1-A
Matrix: Solid
Analysis Batch: 22135

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			03/25/22 08:32	1

Lab Sample ID: LCS 880-21601/2-A
Matrix: Solid
Analysis Batch: 22135

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	271.1		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-21601/3-A
Matrix: Solid
Analysis Batch: 22135

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	270.6		mg/Kg		108	90 - 110	0	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-12311-5 MS
Matrix: Solid
Analysis Batch: 22135

Client Sample ID: S-12,0.5
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	217	F1	249	499.5	F1	mg/Kg		114	90 - 110		

Lab Sample ID: 880-12311-5 MSD
Matrix: Solid
Analysis Batch: 22135

Client Sample ID: S-12,0.5
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	217	F1	249	495.7	F1	mg/Kg		112	90 - 110	1	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

GC VOA

Prep Batch: 21732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	5035	
880-12311-2	S-8,3	Total/NA	Solid	5035	
880-12311-3	S-8,5	Total/NA	Solid	5035	
880-12311-4	S-8,10	Total/NA	Solid	5035	
880-12311-5	S-12,0.5	Total/NA	Solid	5035	
880-12311-6	S-12,1	Total/NA	Solid	5035	
MB 880-21732/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21732/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21732/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12543-A-2-A MS	Matrix Spike	Total/NA	Solid	5035	
880-12543-A-2-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 21733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-7	S-9,5	Total/NA	Solid	5035	
880-12311-8	S-9,3	Total/NA	Solid	5035	
880-12311-9	S-9,5	Total/NA	Solid	5035	
880-12311-10	S-9,10	Total/NA	Solid	5035	
880-12311-11	S-10,0.5	Total/NA	Solid	5035	
880-12311-12	S-10,1	Total/NA	Solid	5035	
880-12311-13	S-11,0.5	Total/NA	Solid	5035	
880-12311-14	S-11,1	Total/NA	Solid	5035	
MB 880-21733/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21733/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21733/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12309-A-1-K MS	Matrix Spike	Total/NA	Solid	5035	
880-12309-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 21846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	8021B	21732
880-12311-2	S-8,3	Total/NA	Solid	8021B	21732
880-12311-3	S-8,5	Total/NA	Solid	8021B	21732
880-12311-4	S-8,10	Total/NA	Solid	8021B	21732
880-12311-5	S-12,0.5	Total/NA	Solid	8021B	21732
880-12311-6	S-12,1	Total/NA	Solid	8021B	21732
MB 880-21732/5-A	Method Blank	Total/NA	Solid	8021B	21732
LCS 880-21732/1-A	Lab Control Sample	Total/NA	Solid	8021B	21732
LCSD 880-21732/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21732
880-12543-A-2-A MS	Matrix Spike	Total/NA	Solid	8021B	21732
880-12543-A-2-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21732

Analysis Batch: 21907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-7	S-9,5	Total/NA	Solid	8021B	21733
880-12311-8	S-9,3	Total/NA	Solid	8021B	21733
880-12311-9	S-9,5	Total/NA	Solid	8021B	21733
880-12311-10	S-9,10	Total/NA	Solid	8021B	21733
880-12311-11	S-10,0.5	Total/NA	Solid	8021B	21733
880-12311-12	S-10,1	Total/NA	Solid	8021B	21733
880-12311-13	S-11,0.5	Total/NA	Solid	8021B	21733

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

GC VOA (Continued)

Analysis Batch: 21907 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-14	S-11,1	Total/NA	Solid	8021B	21733
MB 880-21733/5-A	Method Blank	Total/NA	Solid	8021B	21733
LCS 880-21733/1-A	Lab Control Sample	Total/NA	Solid	8021B	21733
LCSD 880-21733/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21733
880-12309-A-1-K MS	Matrix Spike	Total/NA	Solid	8021B	21733
880-12309-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21733

Analysis Batch: 22054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	Total BTEX	
880-12311-2	S-8,3	Total/NA	Solid	Total BTEX	
880-12311-3	S-8,5	Total/NA	Solid	Total BTEX	
880-12311-4	S-8,10	Total/NA	Solid	Total BTEX	
880-12311-5	S-12,0.5	Total/NA	Solid	Total BTEX	
880-12311-6	S-12,1	Total/NA	Solid	Total BTEX	
880-12311-7	S-9,5	Total/NA	Solid	Total BTEX	
880-12311-8	S-9,3	Total/NA	Solid	Total BTEX	
880-12311-9	S-9,5	Total/NA	Solid	Total BTEX	
880-12311-10	S-9,10	Total/NA	Solid	Total BTEX	
880-12311-11	S-10,0.5	Total/NA	Solid	Total BTEX	
880-12311-12	S-10,1	Total/NA	Solid	Total BTEX	
880-12311-13	S-11,0.5	Total/NA	Solid	Total BTEX	
880-12311-14	S-11,1	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	8015NM Prep	
880-12311-2	S-8,3	Total/NA	Solid	8015NM Prep	
880-12311-3	S-8,5	Total/NA	Solid	8015NM Prep	
880-12311-4	S-8,10	Total/NA	Solid	8015NM Prep	
880-12311-5	S-12,0.5	Total/NA	Solid	8015NM Prep	
880-12311-6	S-12,1	Total/NA	Solid	8015NM Prep	
880-12311-7	S-9,5	Total/NA	Solid	8015NM Prep	
880-12311-8	S-9,3	Total/NA	Solid	8015NM Prep	
880-12311-9	S-9,5	Total/NA	Solid	8015NM Prep	
880-12311-10	S-9,10	Total/NA	Solid	8015NM Prep	
880-12311-11	S-10,0.5	Total/NA	Solid	8015NM Prep	
880-12311-12	S-10,1	Total/NA	Solid	8015NM Prep	
880-12311-13	S-11,0.5	Total/NA	Solid	8015NM Prep	
880-12311-14	S-11,1	Total/NA	Solid	8015NM Prep	
MB 880-21467/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21467/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21467/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12311-1 MS	S-8,1	Total/NA	Solid	8015NM Prep	
880-12311-1 MSD	S-8,1	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	8015B NM	21467

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Analysis Batch: 21609 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-2	S-8,3	Total/NA	Solid	8015B NM	21467
880-12311-3	S-8,5	Total/NA	Solid	8015B NM	21467
880-12311-4	S-8,10	Total/NA	Solid	8015B NM	21467
880-12311-5	S-12,0.5	Total/NA	Solid	8015B NM	21467
880-12311-6	S-12,1	Total/NA	Solid	8015B NM	21467
880-12311-7	S-9,5	Total/NA	Solid	8015B NM	21467
880-12311-8	S-9,3	Total/NA	Solid	8015B NM	21467
880-12311-9	S-9,5	Total/NA	Solid	8015B NM	21467
880-12311-10	S-9,10	Total/NA	Solid	8015B NM	21467
880-12311-11	S-10,0.5	Total/NA	Solid	8015B NM	21467
880-12311-12	S-10,1	Total/NA	Solid	8015B NM	21467
880-12311-13	S-11,0.5	Total/NA	Solid	8015B NM	21467
880-12311-14	S-11,1	Total/NA	Solid	8015B NM	21467
MB 880-21467/1-A	Method Blank	Total/NA	Solid	8015B NM	21467
LCS 880-21467/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21467
LCSD 880-21467/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21467
880-12311-1 MS	S-8,1	Total/NA	Solid	8015B NM	21467
880-12311-1 MSD	S-8,1	Total/NA	Solid	8015B NM	21467

Analysis Batch: 21684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	8015 NM	
880-12311-2	S-8,3	Total/NA	Solid	8015 NM	
880-12311-3	S-8,5	Total/NA	Solid	8015 NM	
880-12311-4	S-8,10	Total/NA	Solid	8015 NM	
880-12311-5	S-12,0.5	Total/NA	Solid	8015 NM	
880-12311-6	S-12,1	Total/NA	Solid	8015 NM	
880-12311-7	S-9,5	Total/NA	Solid	8015 NM	
880-12311-8	S-9,3	Total/NA	Solid	8015 NM	
880-12311-9	S-9,5	Total/NA	Solid	8015 NM	
880-12311-10	S-9,10	Total/NA	Solid	8015 NM	
880-12311-11	S-10,0.5	Total/NA	Solid	8015 NM	
880-12311-12	S-10,1	Total/NA	Solid	8015 NM	
880-12311-13	S-11,0.5	Total/NA	Solid	8015 NM	
880-12311-14	S-11,1	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Soluble	Solid	DI Leach	
880-12311-2	S-8,3	Soluble	Solid	DI Leach	
880-12311-3	S-8,5	Soluble	Solid	DI Leach	
880-12311-4	S-8,10	Soluble	Solid	DI Leach	
880-12311-5	S-12,0.5	Soluble	Solid	DI Leach	
880-12311-6	S-12,1	Soluble	Solid	DI Leach	
880-12311-7	S-9,5	Soluble	Solid	DI Leach	
880-12311-8	S-9,3	Soluble	Solid	DI Leach	
880-12311-9	S-9,5	Soluble	Solid	DI Leach	
880-12311-10	S-9,10	Soluble	Solid	DI Leach	
880-12311-11	S-10,0.5	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

HPLC/IC (Continued)

Leach Batch: 21601 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-12	S-10,1	Soluble	Solid	DI Leach	
880-12311-13	S-11,0.5	Soluble	Solid	DI Leach	
880-12311-14	S-11,1	Soluble	Solid	DI Leach	
MB 880-21601/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21601/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21601/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12311-5 MS	S-12,0.5	Soluble	Solid	DI Leach	
880-12311-5 MSD	S-12,0.5	Soluble	Solid	DI Leach	

Analysis Batch: 22135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Soluble	Solid	300.0	21601
880-12311-2	S-8,3	Soluble	Solid	300.0	21601
880-12311-3	S-8,5	Soluble	Solid	300.0	21601
880-12311-4	S-8,10	Soluble	Solid	300.0	21601
880-12311-5	S-12,0.5	Soluble	Solid	300.0	21601
880-12311-6	S-12,1	Soluble	Solid	300.0	21601
880-12311-7	S-9,5	Soluble	Solid	300.0	21601
880-12311-8	S-9,3	Soluble	Solid	300.0	21601
880-12311-9	S-9,5	Soluble	Solid	300.0	21601
880-12311-10	S-9,10	Soluble	Solid	300.0	21601
880-12311-11	S-10,0.5	Soluble	Solid	300.0	21601
880-12311-12	S-10,1	Soluble	Solid	300.0	21601
880-12311-13	S-11,0.5	Soluble	Solid	300.0	21601
880-12311-14	S-11,1	Soluble	Solid	300.0	21601
MB 880-21601/1-A	Method Blank	Soluble	Solid	300.0	21601
LCS 880-21601/2-A	Lab Control Sample	Soluble	Solid	300.0	21601
LCSD 880-21601/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21601
880-12311-5 MS	S-12,0.5	Soluble	Solid	300.0	21601
880-12311-5 MSD	S-12,0.5	Soluble	Solid	300.0	21601

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-8,1
Date Collected: 03/07/22 11:45
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-1
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			5.00 g	5 mL	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 17:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 11:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		10			22135	03/25/22 15:20	CH	XEN MID

Client Sample ID: S-8,3
Date Collected: 03/07/22 11:46
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-2
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			5.04 g	5 mL	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 17:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 12:38	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 15:29	CH	XEN MID

Client Sample ID: S-8,5
Date Collected: 03/07/22 11:47
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 17:50	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 12:59	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 15:38	CH	XEN MID

Client Sample ID: S-8,10
Date Collected: 03/07/22 11:49
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 18:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-8,10
Date Collected: 03/07/22 11:49
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-4
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			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 13:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 15:47	CH	XEN MID

Client Sample ID: S-12,0.5
Date Collected: 03/07/22 12:40
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-5
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			4.95 g	5 mL	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 18:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 13:41	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 16:01	CH	XEN MID

Client Sample ID: S-12,1
Date Collected: 03/07/22 12:41
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-6
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			4.96 g	5 mL	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 18:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 14:02	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 16:28	CH	XEN MID

Client Sample ID: S-9,5
Date Collected: 03/07/22 13:10
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-7
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			5.02 g	5 mL	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 22:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 14:23	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-9,5
Date Collected: 03/07/22 13:10
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-7
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			5.02 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 16:37	CH	XEN MID

Client Sample ID: S-9,3
Date Collected: 03/07/22 13:11
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-8
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			5.00 g	5 mL	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 22:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 14:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 17:03	CH	XEN MID

Client Sample ID: S-9,5
Date Collected: 03/07/22 13:12
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-9
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	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 22:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 15:04	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 17:12	CH	XEN MID

Client Sample ID: S-9,10
Date Collected: 03/07/22 13:13
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-10
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	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 23:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 15:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 17:21	CH	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-10,0.5
Date Collected: 03/07/22 13:50
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 23:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 16:07	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 17:30	CH	XEN MID

Client Sample ID: S-10,1
Date Collected: 03/07/22 13:51
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 23:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 16:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 17:39	CH	XEN MID

Client Sample ID: S-11,0.5
Date Collected: 03/07/22 14:20
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/19/22 00:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 16:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 18:26	CH	XEN MID

Client Sample ID: S-11,1
Date Collected: 03/07/22 14:21
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/19/22 01:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-11,1
Date Collected: 03/07/22 14:21
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12311-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 17:10	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 18:43	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: 880-12311-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-12311-1	S-8,1	Solid	03/07/22 11:45	03/10/22 15:05
880-12311-2	S-8,3	Solid	03/07/22 11:46	03/10/22 15:05
880-12311-3	S-8,5	Solid	03/07/22 11:47	03/10/22 15:05
880-12311-4	S-8,10	Solid	03/07/22 11:49	03/10/22 15:05
880-12311-5	S-12,0.5	Solid	03/07/22 12:40	03/10/22 15:05
880-12311-6	S-12,1	Solid	03/07/22 12:41	03/10/22 15:05
880-12311-7	S-9,5	Solid	03/07/22 13:10	03/10/22 15:05
880-12311-8	S-9,3	Solid	03/07/22 13:11	03/10/22 15:05
880-12311-9	S-9,5	Solid	03/07/22 13:12	03/10/22 15:05
880-12311-10	S-9,10	Solid	03/07/22 13:13	03/10/22 15:05
880-12311-11	S-10,0.5	Solid	03/07/22 13:50	03/10/22 15:05
880-12311-12	S-10,1	Solid	03/07/22 13:51	03/10/22 15:05
880-12311-13	S-11,0.5	Solid	03/07/22 14:20	03/10/22 15:05
880-12311-14	S-11,1	Solid	03/07/22 14:21	03/10/22 15:05

Page 151 of 472

No. 2458

12311

CHAIN-OF-CUSTODY

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

Data Reported to

DATE: 3/10/2022 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME. Gravitas SWD

LAI PROJECT #: 22-0105-03 COLLECTOR. JP & 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 ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-8, 1		3/7/22	1145	S	1				X		X		X	X	X													X	
S-8, 3			1146																										
S-8, 5			1147																										
S-8, 10			1148																										
S-12, 0.5			1240																										
S-12, 1			1241																										
S-9, 1			1310																										
S-9, 3			1311																										
S-9, 5			1312																										
S-9, 10			1313																										
S-10, 0.5			1350																										
S-10, 1			1351																										
S-11, 0.5			1420																										
S-11, 1			1421																										
TOTAL																													

880-12311 Chain of Custody

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
	3/10/22 1505	
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 2.1 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

Page 36 of 37

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-12311-1
SDG Number: 22-0105-03

Login Number: 12311
List Number: 1
Creator: Teel, Brianna

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

Laboratory Job ID: 880-13938-1
Laboratory Sample Delivery Group: 22-0105-03
Client Project/Site: Gravitas SWD

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

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
5/2/2022 3:42:22 PM

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

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Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Laboratory Job ID: 880-13938-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 7
QC Sample Results 8
QC Association Summary 12
Lab Chronicle 14
Certification Summary 15
Method Summary 16
Sample Summary 17
Chain of Custody 18
Receipt Checklists 19

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-13938-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Job ID: 880-13938-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-13938-1

Comments
No additional comments.

Receipt
The samples were received on 4/21/2022 9:08 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 0.2º C.

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-24585 recovered under the lower control limit for <AffectedAnalytes>. The samples ran within 12hrs of passing ccv's ; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24404 and analytical batch 880-24585 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24168 and analytical batch 880-24215 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Client Sample ID: S-12 2'

Date Collected: 04/20/22 08:30
Date Received: 04/21/22 09:08

Lab Sample ID: 880-13938-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1	0.00200		mg/Kg		04/28/22 11:21	05/02/22 02:35	1
Toluene	<0.00200	U F1	0.00200		mg/Kg		04/28/22 11:21	05/02/22 02:35	1
Ethylbenzene	<0.00200	U F1	0.00200		mg/Kg		04/28/22 11:21	05/02/22 02:35	1
m,p-Xylenes	<0.00399	U F1	0.00399		mg/Kg		04/28/22 11:21	05/02/22 02:35	1
o-Xylene	<0.00200	U F1	0.00200		mg/Kg		04/28/22 11:21	05/02/22 02:35	1
Xylenes, Total	<0.00399	U F1	0.00399		mg/Kg		04/28/22 11:21	05/02/22 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*04/28/22 11:21*	*05/02/22 02:35*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*04/28/22 11:21*	*05/02/22 02:35*	*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			05/02/22 09:17	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			04/27/22 12:09	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		04/25/22 11:18	04/27/22 03:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/25/22 11:18	04/27/22 03:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/25/22 11:18	04/27/22 03:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*85*		*70 - 130*	*04/25/22 11:18*	*04/27/22 03:46*	*1*
o-Terphenyl (Surr)	*106*		*70 - 130*	*04/25/22 11:18*	*04/27/22 03:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**292**		4.95		mg/Kg			04/26/22 16:30	1

Client Sample ID: S-13 0-1

Date Collected: 04/20/22 08:45
Date Received: 04/21/22 09:08

Lab Sample ID: 880-13938-2
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		04/28/22 11:21	05/02/22 02:55	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/28/22 11:21	05/02/22 02:55	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/28/22 11:21	05/02/22 02:55	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		04/28/22 11:21	05/02/22 02:55	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/28/22 11:21	05/02/22 02:55	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/28/22 11:21	05/02/22 02:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*04/28/22 11:21*	*05/02/22 02:55*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*04/28/22 11:21*	*05/02/22 02:55*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Client Sample ID: S-13 0-1
Date Collected: 04/20/22 08:45
Date Received: 04/21/22 09:08

Lab Sample ID: 880-13938-2
Matrix: Solid

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			05/02/22 09:17	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			04/27/22 12:09	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		04/25/22 11:18	04/27/22 04:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/25/22 11:18	04/27/22 04:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/25/22 11:18	04/27/22 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*81*		*70 - 130*	*04/25/22 11:18*	*04/27/22 04:07*	*1*
o-Terphenyl (Surr)	*102*		*70 - 130*	*04/25/22 11:18*	*04/27/22 04:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	188		4.96		mg/Kg			04/26/22 16:36	1

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-13938-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-13938-1	S-12 2'	105	89
880-13938-1 MS	S-12 2'	113	93
880-13938-1 MSD	S-12 2'	117	93
880-13938-2	S-13 0-1	106	88
LCS 880-24404/1-A	Lab Control Sample	111	95
LCSD 880-24404/2-A	Lab Control Sample Dup	119	98
MB 880-24404/5-A	Method Blank	97	86
MB 880-24583/5-A	Method Blank	97	90

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-13938-1	S-12 2'	85	106
880-13938-2	S-13 0-1	81	102
880-13941-A-27-B MS	Matrix Spike	77	87
880-13941-A-27-C MSD	Matrix Spike Duplicate	75	85

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO2	OTPH2
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-24168/2-A	Lab Control Sample	95	123
LCSD 880-24168/3-A	Lab Control Sample Dup	97	128
MB 880-24168/1-A	Method Blank	82	104

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24404/5-A
Matrix: Solid
Analysis Batch: 24585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24404

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/28/22 11:21	05/02/22 02:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/28/22 11:21	05/02/22 02:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/28/22 11:21	05/02/22 02:13	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		04/28/22 11:21	05/02/22 02:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/28/22 11:21	05/02/22 02:13	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/28/22 11:21	05/02/22 02:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*04/28/22 11:21*	*05/02/22 02:13*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*04/28/22 11:21*	*05/02/22 02:13*	*1*

Lab Sample ID: LCS 880-24404/1-A
Matrix: Solid
Analysis Batch: 24585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24404

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08898		mg/Kg		89	70 - 130		
Toluene			0.100	0.09298		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.1004		mg/Kg		100	70 - 130		
m,p-Xylenes			0.200	0.2046		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.1074		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-24404/2-A
Matrix: Solid
Analysis Batch: 24585

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24404

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08877		mg/Kg		89	70 - 130	0	35
Toluene			0.100	0.09342		mg/Kg		93	70 - 130	0	35
Ethylbenzene			0.100	0.1006		mg/Kg		101	70 - 130	0	35
m,p-Xylenes			0.200	0.2038		mg/Kg		102	70 - 130	0	35
o-Xylene			0.100	0.1091		mg/Kg		109	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-13938-1 MS
Matrix: Solid
Analysis Batch: 24585

Client Sample ID: S-12 2'
Prep Type: Total/NA
Prep Batch: 24404

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U F1	0.0996	0.04421	F1	mg/Kg		44	70 - 130		
Toluene	<0.00200	U F1	0.0996	0.03856	F1	mg/Kg		39	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

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

Lab Sample ID: 880-13938-1 MS
Matrix: Solid
Analysis Batch: 24585

Client Sample ID: S-12 2'
Prep Type: Total/NA
Prep Batch: 24404

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.0996	0.04246	F1	mg/Kg		43	70 - 130
m,p-Xylenes	<0.00399	U F1	0.199	0.09402	F1	mg/Kg		47	70 - 130
o-Xylene	<0.00200	U F1	0.0996	0.06123	F1	mg/Kg		61	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 880-13938-1 MSD
Matrix: Solid
Analysis Batch: 24585

Client Sample ID: S-12 2'
Prep Type: Total/NA
Prep Batch: 24404

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0994	0.04973	F1	mg/Kg		50	70 - 130	12	35
Toluene	<0.00200	U F1	0.0994	0.04558	F1	mg/Kg		46	70 - 130	17	35
Ethylbenzene	<0.00200	U F1	0.0994	0.03631	F1	mg/Kg		37	70 - 130	16	35
m,p-Xylenes	<0.00399	U F1	0.199	0.1127	F1	mg/Kg		57	70 - 130	18	35
o-Xylene	<0.00200	U F1	0.0994	0.06577	F1	mg/Kg		66	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: MB 880-24583/5-A
Matrix: Solid
Analysis Batch: 24585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24583

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/01/22 13:14	05/01/22 15:38	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/01/22 13:14	05/01/22 15:38	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/01/22 13:14	05/01/22 15:38	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		05/01/22 13:14	05/01/22 15:38	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/01/22 13:14	05/01/22 15:38	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/01/22 13:14	05/01/22 15:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*05/01/22 13:14*	*05/01/22 15:38*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/01/22 13:14*	*05/01/22 15:38*	*1*

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

Lab Sample ID: MB 880-24168/1-A
Matrix: Solid
Analysis Batch: 24215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24168

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		04/25/22 11:18	04/26/22 19:33	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-24168/1-A
Matrix: Solid
Analysis Batch: 24215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24168

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		04/25/22 11:18	04/26/22 19:33	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/25/22 11:18	04/26/22 19:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*82*		*70 - 130*	*04/25/22 11:18*	*04/26/22 19:33*	*1*
o-Terphenyl (Surr)	*104*		*70 - 130*	*04/25/22 11:18*	*04/26/22 19:33*	*1*

Lab Sample ID: LCS 880-24168/2-A
Matrix: Solid
Analysis Batch: 24215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24168

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1040		mg/Kg		104	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	943.0		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*95*		*70 - 130*
o-Terphenyl (Surr)	*123*		*70 - 130*

Lab Sample ID: LCSD 880-24168/3-A
Matrix: Solid
Analysis Batch: 24215

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24168

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	986.2		mg/Kg		99	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	885.3		mg/Kg		89	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*97*		*70 - 130*
o-Terphenyl (Surr)	*128*		*70 - 130*

Lab Sample ID: 880-13941-A-27-B MS
Matrix: Solid
Analysis Batch: 24215

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24168

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	999	799.0		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	704.0	F1	mg/Kg		68	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*77*		*70 - 130*
o-Terphenyl (Surr)	*87*		*70 - 130*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

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

Lab Sample ID: 880-13941-A-27-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24215 — **Prep Batch: 24168**

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	792.3		mg/Kg		77	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	699.4	F1	mg/Kg		68	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*75*		*70 - 130*
o-Terphenyl (Surr)	*85*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23915/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 24190

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/26/22 13:52	1

Lab Sample ID: LCS 880-23915/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 24190

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	242.5		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-23915/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 24190

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	261.0		mg/Kg		104	90 - 110	7	20

Lab Sample ID: 880-13936-A-51-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 24190

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	6.20		248	263.5		mg/Kg		104	90 - 110		

Lab Sample ID: 880-13936-A-51-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 24190

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	6.20		248	240.8		mg/Kg		95	90 - 110	9	20

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-13938-1
Project/Site: Gravitas SWD SDG: 22-0105-03

GC VOA

Prep Batch: 24404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	5035	
880-13938-2	S-13 0-1	Total/NA	Solid	5035	
MB 880-24404/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24404/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24404/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13938-1 MS	S-12 2'	Total/NA	Solid	5035	
880-13938-1 MSD	S-12 2'	Total/NA	Solid	5035	

Prep Batch: 24583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-24583/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 24585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	8021B	24404
880-13938-2	S-13 0-1	Total/NA	Solid	8021B	24404
MB 880-24404/5-A	Method Blank	Total/NA	Solid	8021B	24404
MB 880-24583/5-A	Method Blank	Total/NA	Solid	8021B	24583
LCS 880-24404/1-A	Lab Control Sample	Total/NA	Solid	8021B	24404
LCSD 880-24404/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24404
880-13938-1 MS	S-12 2'	Total/NA	Solid	8021B	24404
880-13938-1 MSD	S-12 2'	Total/NA	Solid	8021B	24404

Analysis Batch: 24620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	Total BTEX	
880-13938-2	S-13 0-1	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	8015NM Prep	
880-13938-2	S-13 0-1	Total/NA	Solid	8015NM Prep	
MB 880-24168/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24168/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24168/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-13941-A-27-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-13941-A-27-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	8015B NM	24168
880-13938-2	S-13 0-1	Total/NA	Solid	8015B NM	24168
MB 880-24168/1-A	Method Blank	Total/NA	Solid	8015B NM	24168
LCS 880-24168/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24168
LCSD 880-24168/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24168
880-13941-A-27-B MS	Matrix Spike	Total/NA	Solid	8015B NM	24168
880-13941-A-27-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24168

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

GC Semi VOA

Analysis Batch: 24323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	8015 NM	
880-13938-2	S-13 0-1	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 23915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Soluble	Solid	DI Leach	
880-13938-2	S-13 0-1	Soluble	Solid	DI Leach	
MB 880-23915/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23915/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23915/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-13936-A-51-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-13936-A-51-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Soluble	Solid	300.0	23915
880-13938-2	S-13 0-1	Soluble	Solid	300.0	23915
MB 880-23915/1-A	Method Blank	Soluble	Solid	300.0	23915
LCS 880-23915/2-A	Lab Control Sample	Soluble	Solid	300.0	23915
LCSD 880-23915/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23915
880-13936-A-51-F MS	Matrix Spike	Soluble	Solid	300.0	23915
880-13936-A-51-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	23915

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Client Sample ID: S-12 2'

Lab Sample ID: 880-13938-1
Matrix: Solid
Date Collected: 04/20/22 08:30
Date Received: 04/21/22 09:08

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	24404	04/28/22 11:21	MR	XEN MID
Total/NA	Analysis	8021B		1			24585	05/02/22 02:35	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24620	05/02/22 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24323	04/27/22 12:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24168	04/25/22 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24215	04/27/22 03:46	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23915	04/21/22 10:01	CH	XEN MID
Soluble	Analysis	300.0		1			24190	04/26/22 16:30	SC	XEN MID

Client Sample ID: S-13 0-1

Lab Sample ID: 880-13938-2
Matrix: Solid
Date Collected: 04/20/22 08:45
Date Received: 04/21/22 09:08

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	24404	04/28/22 11:21	MR	XEN MID
Total/NA	Analysis	8021B		1			24585	05/02/22 02:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24620	05/02/22 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24323	04/27/22 12:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24168	04/25/22 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24215	04/27/22 04:07	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	23915	04/21/22 10:01	CH	XEN MID
Soluble	Analysis	300.0		1			24190	04/26/22 16:36	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: 880-13938-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-13938-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-13938-1	S-12 2'	Solid	04/20/22 08:30	04/21/22 09:08
880-13938-2	S-13 0-1	Solid	04/20/22 08:45	04/21/22 09:08

Page 170 of 472

No. 25222

13938 CHAIN-OF-CUSTODY

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

DATE: 4/21/22 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Graw. tas Sud

LAI PROJECT #: 22-0105-03 COLLECTOR: RN

Data Reported to

TRRP report? ☐ Yes ☒ No

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

TIME ZONE
Time zone/State: MST / NM

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-12, 2'		4/20/22	0830	S	1				X		X			X	X	X													X	
S-13, 0-1		1	0845	1	1				X		X			X	X	X													X	
TOTAL																														

880-13938 Chain of Custody

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
	4/21/22 0908	
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 3.2 THERM# IR8-1
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

Page 18 of 19

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-13938-1
SDG Number: 22-0105-03

Login Number: 13938
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

ANALYTICAL REPORT

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

Laboratory Job ID: 880-20949-1
Laboratory Sample Delivery Group: 22-0105-03
Client Project/Site: Gravitas SWD

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

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
11/3/2022 3:47:22 PM

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

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

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

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Laboratory Job ID: 880-20949-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 8
QC Sample Results 9
QC Association Summary 13
Lab Chronicle 15
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 21

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-20949-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

Job ID: 880-20949-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-20949-1

Receipt
The samples were received on 10/31/2022 1:32 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 3.9°C

Receipt Exceptions
The following samples were received and analyzed from a bulk soil jar: C-1, 1' (880-20949-1), SW-1 0-1' (880-20949-2), C-2, 1' (880-20949-3) and SW-2 0-1' (880-20949-4).

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

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

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

Client Sample ID: C-1, 1'

Date Collected: 10/24/22 14:00
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 23:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 23:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 23:14	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		11/01/22 13:17	11/01/22 23:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 23:14	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/01/22 13:17	11/01/22 23:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*11/01/22 13:17*	*11/01/22 23:14*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*11/01/22 13:17*	*11/01/22 23:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/02/22 10:02	1

Method: SW846 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			11/02/22 10:14	1

Method: SW846 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		11/01/22 08:49	11/01/22 14:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/22 08:49	11/01/22 14:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/22 08:49	11/01/22 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*86*		*70 - 130*	*11/01/22 08:49*	*11/01/22 14:59*	*1*
o-Terphenyl (Surr)	*89*		*70 - 130*	*11/01/22 08:49*	*11/01/22 14:59*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.2**		4.99		mg/Kg			11/02/22 19:04	1

Client Sample ID: SW-1 0-1'

Date Collected: 10/24/22 14:15
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/01/22 13:17	11/01/22 23:35	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/01/22 13:17	11/01/22 23:35	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/01/22 13:17	11/01/22 23:35	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		11/01/22 13:17	11/01/22 23:35	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/01/22 13:17	11/01/22 23:35	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/01/22 13:17	11/01/22 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*11/01/22 13:17*	*11/01/22 23:35*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*11/01/22 13:17*	*11/01/22 23:35*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

Client Sample ID: SW-1 0-1'

Date Collected: 10/24/22 14:15
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/02/22 10:02	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/02/22 10:14	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 15:20	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 15:20	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*90*		*70 - 130*	*11/01/22 08:49*	*11/01/22 15:20*	*1*
o-Terphenyl (Surr)	*95*		*70 - 130*	*11/01/22 08:49*	*11/01/22 15:20*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1430**		50.0		mg/Kg			11/02/22 03:12	10

Client Sample ID: C-2, 1'

Date Collected: 10/25/22 13:45
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 23:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 23:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 23:55	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		11/01/22 13:17	11/01/22 23:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 23:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/01/22 13:17	11/01/22 23:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*11/01/22 13:17*	*11/01/22 23:55*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/01/22 13:17*	*11/01/22 23:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/02/22 10:02	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/02/22 10:14	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 15:42	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 15:42	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

Client Sample ID: C-2, 1'

Date Collected: 10/25/22 13:45
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-3
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*91*		*70 - 130*	*11/01/22 08:49*	*11/01/22 15:42*	*1*
o-Terphenyl (Surr)	*96*		*70 - 130*	*11/01/22 08:49*	*11/01/22 15:42*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.2**		4.99		mg/Kg			11/02/22 03:17	1

Client Sample ID: SW-2 0-1'

Date Collected: 10/25/22 14:00
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-4
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/01/22 13:17	11/02/22 00:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/01/22 13:17	11/02/22 00:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/01/22 13:17	11/02/22 00:16	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		11/01/22 13:17	11/02/22 00:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/01/22 13:17	11/02/22 00:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/01/22 13:17	11/02/22 00:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/01/22 13:17*	*11/02/22 00:16*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*11/01/22 13:17*	*11/02/22 00:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/02/22 10:02	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/02/22 10:14	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 16:03	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 16:03	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*76*		*70 - 130*	*11/01/22 08:49*	*11/01/22 16:03*	*1*
o-Terphenyl (Surr)	*78*		*70 - 130*	*11/01/22 08:49*	*11/01/22 16:03*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1400**		25.2		mg/Kg			11/02/22 03:32	5

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-20949-1	C-1, 1'	106	97
880-20949-1 MS	C-1, 1'	93	96
880-20949-1 MSD	C-1, 1'	95	95
880-20949-2	SW-1 0-1'	124	107
880-20949-3	C-2, 1'	112	108
880-20949-4	SW-2 0-1'	120	109
LCS 880-38396/1-A	Lab Control Sample	86	100
LCSD 880-38396/2-A	Lab Control Sample Dup	84	100
MB 880-38292/5-A	Method Blank	96	101
MB 880-38396/5-A	Method Blank	98	94

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-20949-1	C-1, 1'	86	89
880-20949-2	SW-1 0-1'	90	95
880-20949-3	C-2, 1'	91	96
880-20949-4	SW-2 0-1'	76	78
LCS 880-38325/2-A	Lab Control Sample	112	120
LCSD 880-38325/3-A	Lab Control Sample Dup	121	128
MB 880-38325/1-A	Method Blank	77	83

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38292/5-A
Matrix: Solid
Analysis Batch: 38317

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38292

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/31/22 13:44	11/01/22 11:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/22 13:44	11/01/22 11:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/22 13:44	11/01/22 11:42	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		10/31/22 13:44	11/01/22 11:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/22 13:44	11/01/22 11:42	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/31/22 13:44	11/01/22 11:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*10/31/22 13:44*	*11/01/22 11:42*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*10/31/22 13:44*	*11/01/22 11:42*	*1*

Lab Sample ID: MB 880-38396/5-A
Matrix: Solid
Analysis Batch: 38317

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38396

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 22:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 22:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 22:52	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		11/01/22 13:17	11/01/22 22:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/01/22 13:17	11/01/22 22:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/01/22 13:17	11/01/22 22:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/01/22 13:17*	*11/01/22 22:52*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/01/22 13:17*	*11/01/22 22:52*	*1*

Lab Sample ID: LCS 880-38396/1-A
Matrix: Solid
Analysis Batch: 38317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38396

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09196		mg/Kg		92	70 - 130		
Toluene			0.100	0.09375		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09317		mg/Kg		93	70 - 130		
m,p-Xylenes			0.200	0.1708		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.09774		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-38396/2-A
Matrix: Solid
Analysis Batch: 38317

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38396

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09381		mg/Kg		94	70 - 130	2	35

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

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

Lab Sample ID: LCSD 880-38396/2-A
Matrix: Solid
Analysis Batch: 38317

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38396

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09579		mg/Kg		96	70 - 130	2	35
Ethylbenzene			0.100	0.09325		mg/Kg		93	70 - 130	0	35
m,p-Xylenes			0.200	0.1693		mg/Kg		85	70 - 130	1	35
o-Xylene			0.100	0.09677		mg/Kg		97	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 880-20949-1 MS
Matrix: Solid
Analysis Batch: 38317

Client Sample ID: C-1, 1'
Prep Type: Total/NA
Prep Batch: 38396

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0998	0.07863		mg/Kg		78	70 - 130
Toluene	<0.00200	U	0.0998	0.07892		mg/Kg		79	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.07719		mg/Kg		77	70 - 130
m,p-Xylenes	<0.00401	U	0.200	0.1450		mg/Kg		73	70 - 130
o-Xylene	<0.00200	U	0.0998	0.08347		mg/Kg		84	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 880-20949-1 MSD
Matrix: Solid
Analysis Batch: 38317

Client Sample ID: C-1, 1'
Prep Type: Total/NA
Prep Batch: 38396

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.07810		mg/Kg		78	70 - 130	1	35
Toluene	<0.00200	U	0.0990	0.07953		mg/Kg		80	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.0990	0.07936		mg/Kg		80	70 - 130	3	35
m,p-Xylenes	<0.00401	U	0.198	0.1511		mg/Kg		76	70 - 130	4	35
o-Xylene	<0.00200	U	0.0990	0.08674		mg/Kg		88	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

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

Lab Sample ID: MB 880-38325/1-A
Matrix: Solid
Analysis Batch: 38323

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38325

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		11/01/22 08:49	11/01/22 09:56	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-38325/1-A
Matrix: Solid
Analysis Batch: 38323

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38325

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		11/01/22 08:49	11/01/22 09:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/22 08:49	11/01/22 09:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*77*		*70 - 130*	*11/01/22 08:49*	*11/01/22 09:56*	*1*
o-Terphenyl (Surr)	*83*		*70 - 130*	*11/01/22 08:49*	*11/01/22 09:56*	*1*

Lab Sample ID: LCS 880-38325/2-A
Matrix: Solid
Analysis Batch: 38323

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38325

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1179		mg/Kg		118	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1120		mg/Kg		112	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*112*		*70 - 130*
o-Terphenyl (Surr)	*120*		*70 - 130*

Lab Sample ID: LCSD 880-38325/3-A
Matrix: Solid
Analysis Batch: 38323

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38325

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1081		mg/Kg		108	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1234		mg/Kg		123	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*121*		*70 - 130*
o-Terphenyl (Surr)	*128*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38299/1-A
Matrix: Solid
Analysis Batch: 38438

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			11/02/22 01:29	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-38299/2-A
Matrix: Solid
Analysis Batch: 38438

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	261.4		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-38299/3-A
Matrix: Solid
Analysis Batch: 38438

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	263.0		mg/Kg		105	90 - 110	1	20

Lab Sample ID: 880-20949-3 MS
Matrix: Solid
Analysis Batch: 38438

Client Sample ID: C-2, 1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	37.2		250	292.4		mg/Kg		102	90 - 110		

Lab Sample ID: 880-20949-3 MSD
Matrix: Solid
Analysis Batch: 38438

Client Sample ID: C-2, 1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	37.2		250	286.9		mg/Kg		100	90 - 110	2	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

GC VOA

Prep Batch: 38292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38292/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 38317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20949-1	C-1, 1'	Total/NA	Solid	8021B	38396
880-20949-2	SW-1 0-1'	Total/NA	Solid	8021B	38396
880-20949-3	C-2, 1'	Total/NA	Solid	8021B	38396
880-20949-4	SW-2 0-1'	Total/NA	Solid	8021B	38396
MB 880-38292/5-A	Method Blank	Total/NA	Solid	8021B	38292
MB 880-38396/5-A	Method Blank	Total/NA	Solid	8021B	38396
LCS 880-38396/1-A	Lab Control Sample	Total/NA	Solid	8021B	38396
LCSD 880-38396/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38396
880-20949-1 MS	C-1, 1'	Total/NA	Solid	8021B	38396
880-20949-1 MSD	C-1, 1'	Total/NA	Solid	8021B	38396

Prep Batch: 38396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20949-1	C-1, 1'	Total/NA	Solid	5035	
880-20949-2	SW-1 0-1'	Total/NA	Solid	5035	
880-20949-3	C-2, 1'	Total/NA	Solid	5035	
880-20949-4	SW-2 0-1'	Total/NA	Solid	5035	
MB 880-38396/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38396/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38396/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20949-1 MS	C-1, 1'	Total/NA	Solid	5035	
880-20949-1 MSD	C-1, 1'	Total/NA	Solid	5035	

Analysis Batch: 38462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20949-1	C-1, 1'	Total/NA	Solid	Total BTEX	
880-20949-2	SW-1 0-1'	Total/NA	Solid	Total BTEX	
880-20949-3	C-2, 1'	Total/NA	Solid	Total BTEX	
880-20949-4	SW-2 0-1'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20949-1	C-1, 1'	Total/NA	Solid	8015B NM	38325
880-20949-2	SW-1 0-1'	Total/NA	Solid	8015B NM	38325
880-20949-3	C-2, 1'	Total/NA	Solid	8015B NM	38325
880-20949-4	SW-2 0-1'	Total/NA	Solid	8015B NM	38325
MB 880-38325/1-A	Method Blank	Total/NA	Solid	8015B NM	38325
LCS 880-38325/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38325
LCSD 880-38325/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38325

Prep Batch: 38325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20949-1	C-1, 1'	Total/NA	Solid	8015NM Prep	
880-20949-2	SW-1 0-1'	Total/NA	Solid	8015NM Prep	
880-20949-3	C-2, 1'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Prep Batch: 38325 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20949-4	SW-2 0-1'	Total/NA	Solid	8015NM Prep	
MB 880-38325/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38325/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38325/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20949-1	C-1, 1'	Total/NA	Solid	8015 NM	
880-20949-2	SW-1 0-1'	Total/NA	Solid	8015 NM	
880-20949-3	C-2, 1'	Total/NA	Solid	8015 NM	
880-20949-4	SW-2 0-1'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20949-1	C-1, 1'	Soluble	Solid	DI Leach	
880-20949-2	SW-1 0-1'	Soluble	Solid	DI Leach	
880-20949-3	C-2, 1'	Soluble	Solid	DI Leach	
880-20949-4	SW-2 0-1'	Soluble	Solid	DI Leach	
MB 880-38299/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38299/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38299/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-20949-3 MS	C-2, 1'	Soluble	Solid	DI Leach	
880-20949-3 MSD	C-2, 1'	Soluble	Solid	DI Leach	

Analysis Batch: 38438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20949-1	C-1, 1'	Soluble	Solid	300.0	38299
880-20949-2	SW-1 0-1'	Soluble	Solid	300.0	38299
880-20949-3	C-2, 1'	Soluble	Solid	300.0	38299
880-20949-4	SW-2 0-1'	Soluble	Solid	300.0	38299
MB 880-38299/1-A	Method Blank	Soluble	Solid	300.0	38299
LCS 880-38299/2-A	Lab Control Sample	Soluble	Solid	300.0	38299
LCSD 880-38299/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38299
880-20949-3 MS	C-2, 1'	Soluble	Solid	300.0	38299
880-20949-3 MSD	C-2, 1'	Soluble	Solid	300.0	38299

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

Client Sample ID: C-1, 1'
Date Collected: 10/24/22 14:00
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-1
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			4.99 g	5 mL	38396	11/01/22 13:17	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38317	11/01/22 23:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38462	11/02/22 10:02	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38467	11/02/22 10:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38325	11/01/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38323	11/01/22 14:59	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	38299	10/31/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38438	11/02/22 19:04	CH	EET MID

Client Sample ID: SW-1 0-1'
Date Collected: 10/24/22 14:15
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	38396	11/01/22 13:17	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38317	11/01/22 23:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38462	11/02/22 10:02	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38467	11/02/22 10:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	38325	11/01/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38323	11/01/22 15:20	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38299	10/31/22 14:46	CH	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	38438	11/02/22 03:12	CH	EET MID

Client Sample ID: C-2, 1'
Date Collected: 10/25/22 13:45
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-3
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	38396	11/01/22 13:17	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38317	11/01/22 23:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38462	11/02/22 10:02	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38467	11/02/22 10:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	38325	11/01/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38323	11/01/22 15:42	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	38299	10/31/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38438	11/02/22 03:17	CH	EET MID

Client Sample ID: SW-2 0-1'
Date Collected: 10/25/22 14:00
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-4
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			5.03 g	5 mL	38396	11/01/22 13:17	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38317	11/02/22 00:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38462	11/02/22 10:02	AJ	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

Client Sample ID: SW-2 0-1'

Date Collected: 10/25/22 14:00
Date Received: 10/31/22 13:32

Lab Sample ID: 880-20949-4

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			38467	11/02/22 10:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	38325	11/01/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38323	11/01/22 16:03	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	38299	10/31/22 14:46	CH	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	38438	11/02/22 03:32	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-20949-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-20949-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-20949-1	C-1, 1'	Solid	10/24/22 14:00	10/31/22 13:32
880-20949-2	SW-1 0-1'	Solid	10/24/22 14:15	10/31/22 13:32
880-20949-3	C-2, 1'	Solid	10/25/22 13:45	10/31/22 13:32
880-20949-4	SW-2 0-1'	Solid	10/25/22 14:00	10/31/22 13:32

Page 191 of 472

20949 No. 2807

CHAIN-OF-CUSTODY

11/3/2022

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

Data Reported to

DATE 10/31/2022 PAGE 1 OF 1

PO# _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME Gravitas SWD

LAI PROJECT # 22-0105-03 COLLECTOR: JH

TRRP report? ☐ Yes ☒ No

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

TIME ZONE
Time zone/State: MST/NM

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES	FIELD NOTES
C-1, 1'		10/24/22	1400	S	1				X		BTEX ☒ MTBE ☐ TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ GASOLINE MOD 8015 ☒ DIESEL - MOD 8015 ☒ OIL - MOD 8015 ☒ VOC 8260 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ 8082 PCBS ☐ TCLP - METALS (RCRA) ☐ TCLP VOC ☐ TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ TOTAL METALS (RCRA) ☐ OTHER LIST ☐ LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐ RCI ☐ TOX ☐ FLASHPOINT ☐ TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ pH ☐ HEXAVALENT CHROMIUM ☐ EXPLOSIVES ☐ PECHLORATE ☐ CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	202
SW-1, 0-1'		1	1415	1	1				1		1	
C-2, 1'		10/25/22	1345	1	1				1		1	
SW-2, 0-1'		1	1400	1	1				1		1	

TOTAL

880-20949 Chain of Custody

RELINQUISHED BY (Signature)	DATE/TIME 10/31/22 1337	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 4.2/3.9 THERM# IR8 -36
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Page 20 of 21

Received by OCD: 5/8/2024 2:07:46 PM

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Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-20949-1
SDG Number: 22-0105-03

Login Number: 20949
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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 2/3/2023 7:07:43 PM

JOB DESCRIPTION

Gravitas SWD
SDG NUMBER 22-0105-03

JOB NUMBER

880-24204-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 5/31/2024 3:12:55 PM

my EOL

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

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2/3/2023 7:07:43 PM

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Laboratory Job ID: 880-24204-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 13
Lab Chronicle 15
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 21

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-24204-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, 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: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

Job ID: 880-24204-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-24204-1

Receipt
The samples were received on 1/30/2023 9:52 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-3, 3' (880-24204-1), C-4, 3' (880-24204-2), SW-3, 0-3' (880-24204-3) and SW-4, 0-3' (880-24204-4).

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-45061 and analytical batch 880-45103 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW-3, 0-3' (880-24204-3). 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.

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

Released to Imaging: 5/31/2024 3:12:53 PM

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

Client Sample ID: C-3, 3'

Date Collected: 01/23/23 14:00
Date Received: 01/30/23 09:52

Lab Sample ID: 880-24204-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/23 09:18	02/03/23 17:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/23 09:18	02/03/23 17:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/23 09:18	02/03/23 17:40	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/23 09:18	02/03/23 17:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/23 09:18	02/03/23 17:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/23 09:18	02/03/23 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*02/03/23 09:18*	*02/03/23 17:40*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*02/03/23 09:18*	*02/03/23 17:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/03/23 19:59	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/23 15:01	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/30/23 14:49	01/31/23 11:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/30/23 14:49	01/31/23 11:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/30/23 14:49	01/31/23 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*119*		*70 - 130*	*01/30/23 14:49*	*01/31/23 11:02*	*1*
o-Terphenyl (Surr)	*124*		*70 - 130*	*01/30/23 14:49*	*01/31/23 11:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1450**		24.8		mg/Kg			01/30/23 16:40	5

Client Sample ID: C-4, 3'

Date Collected: 01/23/23 14:15
Date Received: 01/30/23 09:52

Lab Sample ID: 880-24204-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/23 09:18	02/03/23 18:00	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/23 09:18	02/03/23 18:00	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/23 09:18	02/03/23 18:00	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/23 09:18	02/03/23 18:00	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/23 09:18	02/03/23 18:00	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/23 09:18	02/03/23 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/03/23 09:18*	*02/03/23 18:00*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*02/03/23 09:18*	*02/03/23 18:00*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-24204-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: C-4, 3'
Lab Sample ID: 880-24204-2
Date Collected: 01/23/23 14:15 **Matrix: Solid**
Date Received: 01/30/23 09:52

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/03/23 19:59	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/23 15:01	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/30/23 14:49	01/31/23 12:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/30/23 14:49	01/31/23 12:09	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/30/23 14:49	01/31/23 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*99*		*70 - 130*	*01/30/23 14:49*	*01/31/23 12:09*	*1*
o-Terphenyl (Surr)	*113*		*70 - 130*	*01/30/23 14:49*	*01/31/23 12:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1930**		25.1		mg/Kg			01/30/23 16:59	5

Client Sample ID: SW-3, 0-3'
Lab Sample ID: 880-24204-3
Date Collected: 01/23/23 14:30 **Matrix: Solid**
Date Received: 01/30/23 09:52

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 18:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 18:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 18:21	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		02/03/23 09:18	02/03/23 18:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 18:21	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/03/23 09:18	02/03/23 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/03/23 09:18*	*02/03/23 18:21*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/03/23 09:18*	*02/03/23 18:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/03/23 19:59	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/23 15:01	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/30/23 14:49	01/31/23 12:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/30/23 14:49	01/31/23 12:32	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-24204-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Client Sample ID: SW-3, 0-3' Lab Sample ID: 880-24204-3

Date Collected: 01/23/23 14:30 **Matrix: Solid**
Date Received: 01/30/23 09:52

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/30/23 14:49	01/31/23 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*121*		*70 - 130*	*01/30/23 14:49*	*01/31/23 12:32*	*1*
o-Terphenyl (Surr)	*131*	*S1+*	*70 - 130*	*01/30/23 14:49*	*01/31/23 12:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10000**		248		mg/Kg			01/30/23 17:05	50

Client Sample ID: SW-4, 0-3' Lab Sample ID: 880-24204-4

Date Collected: 01/23/23 14:45 **Matrix: Solid**
Date Received: 01/30/23 09:52

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 18:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 18:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 18:42	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		02/03/23 09:18	02/03/23 18:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 18:42	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/03/23 09:18	02/03/23 18:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*02/03/23 09:18*	*02/03/23 18:42*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/03/23 09:18*	*02/03/23 18:42*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/03/23 19:59	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/23 15:01	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/30/23 14:49	01/31/23 12:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/30/23 14:49	01/31/23 12:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/30/23 14:49	01/31/23 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*98*		*70 - 130*	*01/30/23 14:49*	*01/31/23 12:53*	*1*
o-Terphenyl (Surr)	*113*		*70 - 130*	*01/30/23 14:49*	*01/31/23 12:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**32500**		250		mg/Kg			01/30/23 17:11	50

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-24204-1	C-3, 3'	117	75
880-24204-2	C-4, 3'	108	113
880-24204-3	SW-3, 0-3'	108	95
880-24204-4	SW-4, 0-3'	106	93
LCS 880-45334/1-A	Lab Control Sample	79	102
LCSD 880-45334/2-A	Lab Control Sample Dup	81	109
MB 880-45334/5-A	Method Blank	84	91

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-24204-1	C-3, 3'	119	124
880-24204-1 MS	C-3, 3'	96	99
880-24204-1 MSD	C-3, 3'	113	111
880-24204-2	C-4, 3'	99	113
880-24204-3	SW-3, 0-3'	121	131 S1+
880-24204-4	SW-4, 0-3'	98	113
LCS 880-45061/2-A	Lab Control Sample	89	96
LCSD 880-45061/3-A	Lab Control Sample Dup	74	82
MB 880-45061/1-A	Method Blank	156 S1+	170 S1+

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45334/5-A
Matrix: Solid
Analysis Batch: 45310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45334

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 12:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 12:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 12:24	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/23 09:18	02/03/23 12:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/23 09:18	02/03/23 12:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/23 09:18	02/03/23 12:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*02/03/23 09:18*	*02/03/23 12:24*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*02/03/23 09:18*	*02/03/23 12:24*	*1*

Lab Sample ID: LCS 880-45334/1-A
Matrix: Solid
Analysis Batch: 45310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45334

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09842		mg/Kg		98	70 - 130		
Toluene			0.100	0.08842		mg/Kg		88	70 - 130		
Ethylbenzene			0.100	0.07669		mg/Kg		77	70 - 130		
m,p-Xylenes			0.200	0.1543		mg/Kg		77	70 - 130		
o-Xylene			0.100	0.07723		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-45334/2-A
Matrix: Solid
Analysis Batch: 45310

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45334

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1034		mg/Kg		103	70 - 130	5	35
Toluene			0.100	0.09079		mg/Kg		91	70 - 130	3	35
Ethylbenzene			0.100	0.07976		mg/Kg		80	70 - 130	4	35
m,p-Xylenes			0.200	0.1602		mg/Kg		80	70 - 130	4	35
o-Xylene			0.100	0.08030		mg/Kg		80	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-45061/1-A
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45061

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/30/23 14:49	01/31/23 08:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/30/23 14:49	01/31/23 08:27	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/30/23 14:49	01/31/23 08:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*156*	*S1+*	*70 - 130*	*01/30/23 14:49*	*01/31/23 08:27*	*1*
o-Terphenyl (Surr)	*170*	*S1+*	*70 - 130*	*01/30/23 14:49*	*01/31/23 08:27*	*1*

Lab Sample ID: LCS 880-45061/2-A
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45061

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	934.9		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			999	969.4		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*89*		*70 - 130*
o-Terphenyl (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 880-45061/3-A
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45061

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	874.6		mg/Kg		88	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			999	860.9		mg/Kg		86	70 - 130	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*74*		*70 - 130*
o-Terphenyl (Surr)	*82*		*70 - 130*

Lab Sample ID: 880-24204-1 MS
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: C-3, 3'
Prep Type: Total/NA
Prep Batch: 45061

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	884.4		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1029		mg/Kg		101	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

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

Lab Sample ID: 880-24204-1 MS
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: C-3, 3'
Prep Type: Total/NA
Prep Batch: 45061

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	96		70 - 130
o-Terphenyl (Surr)	99		70 - 130

Lab Sample ID: 880-24204-1 MSD
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: C-3, 3'
Prep Type: Total/NA
Prep Batch: 45061

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1068		mg/Kg		105	70 - 130	19	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1162		mg/Kg		115	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	113		70 - 130
o-Terphenyl (Surr)	111		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44967/1-A
Matrix: Solid
Analysis Batch: 45074

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/30/23 14:31	1

Lab Sample ID: LCS 880-44967/2-A
Matrix: Solid
Analysis Batch: 45074

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.6		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-44967/3-A
Matrix: Solid
Analysis Batch: 45074

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	254.5		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

GC VOA

Analysis Batch: 45310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24204-1	C-3, 3'	Total/NA	Solid	8021B	45334
880-24204-2	C-4, 3'	Total/NA	Solid	8021B	45334
880-24204-3	SW-3, 0-3'	Total/NA	Solid	8021B	45334
880-24204-4	SW-4, 0-3'	Total/NA	Solid	8021B	45334
MB 880-45334/5-A	Method Blank	Total/NA	Solid	8021B	45334
LCS 880-45334/1-A	Lab Control Sample	Total/NA	Solid	8021B	45334
LCSD 880-45334/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45334

Prep Batch: 45334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24204-1	C-3, 3'	Total/NA	Solid	5035	
880-24204-2	C-4, 3'	Total/NA	Solid	5035	
880-24204-3	SW-3, 0-3'	Total/NA	Solid	5035	
880-24204-4	SW-4, 0-3'	Total/NA	Solid	5035	
MB 880-45334/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45334/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45334/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 45436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24204-1	C-3, 3'	Total/NA	Solid	Total BTEX	
880-24204-2	C-4, 3'	Total/NA	Solid	Total BTEX	
880-24204-3	SW-3, 0-3'	Total/NA	Solid	Total BTEX	
880-24204-4	SW-4, 0-3'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24204-1	C-3, 3'	Total/NA	Solid	8015NM Prep	
880-24204-2	C-4, 3'	Total/NA	Solid	8015NM Prep	
880-24204-3	SW-3, 0-3'	Total/NA	Solid	8015NM Prep	
880-24204-4	SW-4, 0-3'	Total/NA	Solid	8015NM Prep	
MB 880-45061/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45061/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24204-1 MS	C-3, 3'	Total/NA	Solid	8015NM Prep	
880-24204-1 MSD	C-3, 3'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24204-1	C-3, 3'	Total/NA	Solid	8015B NM	45061
880-24204-2	C-4, 3'	Total/NA	Solid	8015B NM	45061
880-24204-3	SW-3, 0-3'	Total/NA	Solid	8015B NM	45061
880-24204-4	SW-4, 0-3'	Total/NA	Solid	8015B NM	45061
MB 880-45061/1-A	Method Blank	Total/NA	Solid	8015B NM	45061
LCS 880-45061/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45061
LCSD 880-45061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45061
880-24204-1 MS	C-3, 3'	Total/NA	Solid	8015B NM	45061
880-24204-1 MSD	C-3, 3'	Total/NA	Solid	8015B NM	45061

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

GC Semi VOA

Analysis Batch: 45153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24204-1	C-3, 3'	Total/NA	Solid	8015 NM	
880-24204-2	C-4, 3'	Total/NA	Solid	8015 NM	
880-24204-3	SW-3, 0-3'	Total/NA	Solid	8015 NM	
880-24204-4	SW-4, 0-3'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24204-1	C-3, 3'	Soluble	Solid	DI Leach	
880-24204-2	C-4, 3'	Soluble	Solid	DI Leach	
880-24204-3	SW-3, 0-3'	Soluble	Solid	DI Leach	
880-24204-4	SW-4, 0-3'	Soluble	Solid	DI Leach	
MB 880-44967/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44967/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44967/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 45074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24204-1	C-3, 3'	Soluble	Solid	300.0	44967
880-24204-2	C-4, 3'	Soluble	Solid	300.0	44967
880-24204-3	SW-3, 0-3'	Soluble	Solid	300.0	44967
880-24204-4	SW-4, 0-3'	Soluble	Solid	300.0	44967
MB 880-44967/1-A	Method Blank	Soluble	Solid	300.0	44967
LCS 880-44967/2-A	Lab Control Sample	Soluble	Solid	300.0	44967
LCSD 880-44967/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44967

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

Client Sample ID: C-3, 3'

Lab Sample ID: 880-24204-1
Matrix: Solid
Date Collected: 01/23/23 14:00
Date Received: 01/30/23 09:52

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	45334	02/03/23 09:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45310	02/03/23 17:40	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			45436	02/03/23 19:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45153	01/31/23 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	45061	01/30/23 14:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	01/31/23 11:02	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44967	01/30/23 14:00	CH	EET MID
Soluble	Analysis	300.0		5			45074	01/30/23 16:40	CH	EET MID

Client Sample ID: C-4, 3'

Lab Sample ID: 880-24204-2
Matrix: Solid
Date Collected: 01/23/23 14:15
Date Received: 01/30/23 09:52

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	45334	02/03/23 09:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45310	02/03/23 18:00	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			45436	02/03/23 19:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45153	01/31/23 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45061	01/30/23 14:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	01/31/23 12:09	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44967	01/30/23 14:00	CH	EET MID
Soluble	Analysis	300.0		5			45074	01/30/23 16:59	CH	EET MID

Client Sample ID: SW-3, 0-3'

Lab Sample ID: 880-24204-3
Matrix: Solid
Date Collected: 01/23/23 14:30
Date Received: 01/30/23 09:52

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	45334	02/03/23 09:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45310	02/03/23 18:21	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			45436	02/03/23 19:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45153	01/31/23 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45061	01/30/23 14:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	01/31/23 12:32	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44967	01/30/23 14:00	CH	EET MID
Soluble	Analysis	300.0		50			45074	01/30/23 17:05	CH	EET MID

Client Sample ID: SW-4, 0-3'

Lab Sample ID: 880-24204-4
Matrix: Solid
Date Collected: 01/23/23 14:45
Date Received: 01/30/23 09:52

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	45334	02/03/23 09:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45310	02/03/23 18:42	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			45436	02/03/23 19:59	AJ	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

Client Sample ID: SW-4, 0-3'
Date Collected: 01/23/23 14:45
Date Received: 01/30/23 09:52

Lab Sample ID: 880-24204-4
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			45153	01/31/23 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45061	01/30/23 14:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	01/31/23 12:53	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44967	01/30/23 14:00	CH	EET MID
Soluble	Analysis	300.0		50			45074	01/30/23 17:11	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-24204-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-24204-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24204-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-24204-1	C-3, 3'	Solid	01/23/23 14:00	01/30/23 09:52
880-24204-2	C-4, 3'	Solid	01/23/23 14:15	01/30/23 09:52
880-24204-3	SW-3, 0-3'	Solid	01/23/23 14:30	01/30/23 09:52
880-24204-4	SW-4, 0-3'	Solid	01/23/23 14:45	01/30/23 09:52

Page 212 of 472

24204 No. 2844

CHAIN-OF-CUSTODY

2/3/2023

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

Data Reported to

DATE 1/30/23 PAGE 1 OF 1

PO# LAB WORK ORDER#

PROJECT LOCATION OR NAME GRAVITAS SWD

LAI PROJECT # 22-0105-03 COLLECTOR. STAN BATES

TRRP report? ☐ Yes ☒ No

TIME ZONE Time zone/State: MNT / 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	HNO3	H2SO4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES	FIELD NOTES
C-3 3'		1/23/23	2:00	S	1				X		X	
C-4 3'		↓	2:15	↓	1				↓		↓	
SW-3 0-3'			2:30		1							
SW-4 0-3'		↓	2:45	↓	1				↓		↓	
TOTAL												

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 ☐

RELINQUISHED BY (Signature) DATE/TIME 1/30/23 0952 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 1.2 / 0.9 THERM# IR8 = 30
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

880-24204 Chain of Custody

Page 20 of 21

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-24204-1
SDG Number: 22-0105-03

Login Number: 24204
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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 2/8/2023 12:13:19 PM Revision 1

JOB DESCRIPTION

Gravitas SWD
SDG NUMBER 22-0105-03

JOB NUMBER

880-24322-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 5/31/2024 3:12:55 PM

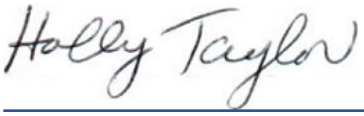
my EOL

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Revision 1

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

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 13
Lab Chronicle 15
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 21

Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, 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: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Job ID: 880-24322-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-24322-1

Revision
The report being provided is a revision of the original report sent on 2/7/2023. The report (revision 1) is being revised to change the project name per Robert Nelson (email).

Receipt
The samples were received on 2/6/2023 8:40 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 1.0º C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-5 4'6" (880-24322-1), C-6 4'6" (880-24322-2), SW-5 0-4.6" (880-24322-3) and SW-6 0-4.6" (880-24322-4).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45568 and analytical batch 880-45544 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-45544 recovered under the lower control limit for m,p-Xylenes and o-Xylene. The samples associated with this CCV ran within 12 hours of passing CCV; therefore, the data have been reported.

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 surrogate recovery for the blank associated with preparation batch 880-45554 and analytical batch 880-45537 was outside the upper control limits.

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: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Client Sample ID: C-5 4'6"

Date Collected: 02/02/23 14:30
Date Received: 02/06/23 08:40

Lab Sample ID: 880-24322-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 00:50	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 00:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 00:50	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/06/23 10:43	02/07/23 00:50	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 00:50	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/06/23 10:43	02/07/23 00:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/06/23 10:43*	*02/07/23 00:50*	*1*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*02/06/23 10:43*	*02/07/23 00:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/07/23 09:48	1

Method: SW846 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			02/07/23 11:04	1

Method: SW846 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		02/06/23 09:00	02/07/23 04:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 09:00	02/07/23 04:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 09:00	02/07/23 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*89*		*70 - 130*	*02/06/23 09:00*	*02/07/23 04:15*	*1*
o-Terphenyl (Surr)	*102*		*70 - 130*	*02/06/23 09:00*	*02/07/23 04:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**403**		49.9		mg/Kg			02/06/23 21:01	10

Client Sample ID: C-6 4'6"

Date Collected: 02/02/23 14:45
Date Received: 02/06/23 08:40

Lab Sample ID: 880-24322-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 01:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 01:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 01:10	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/06/23 10:43	02/07/23 01:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 01:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/06/23 10:43	02/07/23 01:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/06/23 10:43*	*02/07/23 01:10*	*1*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*02/06/23 10:43*	*02/07/23 01:10*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Client Sample ID: C-6 4'6"

Lab Sample ID: 880-24322-2
Matrix: Solid
Date Collected: 02/02/23 14:45
Date Received: 02/06/23 08:40

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/07/23 09:48	1

Method: SW846 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			02/07/23 11:04	1

Method: SW846 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		02/06/23 09:00	02/07/23 04:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 09:00	02/07/23 04:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 09:00	02/07/23 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*89*		*70 - 130*	*02/06/23 09:00*	*02/07/23 04:36*	*1*
o-Terphenyl (Surr)	*102*		*70 - 130*	*02/06/23 09:00*	*02/07/23 04:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1290**		50.1		mg/Kg			02/06/23 21:05	10

Client Sample ID: SW-5 0-4.6"

Lab Sample ID: 880-24322-3
Matrix: Solid
Date Collected: 02/02/23 15:00
Date Received: 02/06/23 08:40

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 01:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 01:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 01:31	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/06/23 10:43	02/07/23 01:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/06/23 10:43	02/07/23 01:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/06/23 10:43	02/07/23 01:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*02/06/23 10:43*	*02/07/23 01:31*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/06/23 10:43*	*02/07/23 01:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/07/23 09:48	1

Method: SW846 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			02/07/23 11:04	1

Method: SW846 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		02/06/23 09:00	02/07/23 04:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 09:00	02/07/23 04:58	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Client Sample ID: SW-5 0-4.6"

Lab Sample ID: 880-24322-3
Matrix: Solid
Date Collected: 02/02/23 15:00
Date Received: 02/06/23 08:40

Method: SW846 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		02/06/23 09:00	02/07/23 04:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*89*		*70 - 130*	*02/06/23 09:00*	*02/07/23 04:58*	*1*
o-Terphenyl (Surr)	*101*		*70 - 130*	*02/06/23 09:00*	*02/07/23 04:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5410**		99.4		mg/Kg			02/06/23 21:10	20

Client Sample ID: SW-6 0-4.6"

Lab Sample ID: 880-24322-4
Matrix: Solid
Date Collected: 02/02/23 15:15
Date Received: 02/06/23 08:40

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/06/23 10:43	02/07/23 01:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/06/23 10:43	02/07/23 01:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/06/23 10:43	02/07/23 01:52	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		02/06/23 10:43	02/07/23 01:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/06/23 10:43	02/07/23 01:52	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/06/23 10:43	02/07/23 01:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*02/06/23 10:43*	*02/07/23 01:52*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*02/06/23 10:43*	*02/07/23 01:52*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/07/23 09:48	1

Method: SW846 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			02/07/23 11:04	1

Method: SW846 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		02/06/23 09:00	02/07/23 05:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/06/23 09:00	02/07/23 05:19	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/06/23 09:00	02/07/23 05:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*91*		*70 - 130*	*02/06/23 09:00*	*02/07/23 05:19*	*1*
o-Terphenyl (Surr)	*104*		*70 - 130*	*02/06/23 09:00*	*02/07/23 05:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13400**		249		mg/Kg			02/06/23 21:15	50

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-24322-1	C-5 4'6"	103	70
880-24322-2	C-6 4'6"	108	73
880-24322-3	SW-5 0-4.6"	125	94
880-24322-4	SW-6 0-4.6"	123	85
LCS 880-45568/1-A	Lab Control Sample	104	86
LCSD 880-45568/2-A	Lab Control Sample Dup	98	96
MB 880-45533/5-A	Method Blank	90	88
MB 880-45568/5-A	Method Blank	87	90

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-24322-1	C-5 4'6"	89	102
880-24322-2	C-6 4'6"	89	102
880-24322-3	SW-5 0-4.6"	89	101
880-24322-4	SW-6 0-4.6"	91	104
LCS 880-45554/2-A	Lab Control Sample	116	125
LCSD 880-45554/3-A	Lab Control Sample Dup	112	124
MB 880-45554/1-A	Method Blank	125	141 S1+

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45533/5-A
Matrix: Solid
Analysis Batch: 45544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45533

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/05/23 11:26	02/06/23 10:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/05/23 11:26	02/06/23 10:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/05/23 11:26	02/06/23 10:51	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/05/23 11:26	02/06/23 10:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/05/23 11:26	02/06/23 10:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/05/23 11:26	02/06/23 10:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*02/05/23 11:26*	*02/06/23 10:51*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/05/23 11:26*	*02/06/23 10:51*	*1*

Lab Sample ID: MB 880-45568/5-A
Matrix: Solid
Analysis Batch: 45544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45568

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/06/23 10:43	02/06/23 23:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/06/23 10:43	02/06/23 23:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/06/23 10:43	02/06/23 23:05	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/06/23 10:43	02/06/23 23:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/06/23 10:43	02/06/23 23:05	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/06/23 10:43	02/06/23 23:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*02/06/23 10:43*	*02/06/23 23:05*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/06/23 10:43*	*02/06/23 23:05*	*1*

Lab Sample ID: LCS 880-45568/1-A
Matrix: Solid
Analysis Batch: 45544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45568

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08514		mg/Kg		85	70 - 130		
Toluene			0.100	0.09052		mg/Kg		91	70 - 130		
Ethylbenzene			0.100	0.09109		mg/Kg		91	70 - 130		
m,p-Xylenes			0.200	0.1666		mg/Kg		83	70 - 130		
o-Xylene			0.100	0.08673		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: LCSD 880-45568/2-A
Matrix: Solid
Analysis Batch: 45544

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45568

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09738		mg/Kg		97	70 - 130	13	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

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

Lab Sample ID: LCSD 880-45568/2-A
Matrix: Solid
Analysis Batch: 45544

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45568

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09286		mg/Kg		93	70 - 130	3	35
Ethylbenzene			0.100	0.08411		mg/Kg		84	70 - 130	8	35
m,p-Xylenes			0.200	0.1574		mg/Kg		79	70 - 130	6	35
o-Xylene			0.100	0.08291		mg/Kg		83	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

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

Lab Sample ID: MB 880-45554/1-A
Matrix: Solid
Analysis Batch: 45537

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45554

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/06/23 08:42	02/06/23 20:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 08:42	02/06/23 20:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 08:42	02/06/23 20:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*125*		*70 - 130*	*02/06/23 08:42*	*02/06/23 20:16*	*1*
o-Terphenyl (Surr)	*141*	*S1+*	*70 - 130*	*02/06/23 08:42*	*02/06/23 20:16*	*1*

Lab Sample ID: LCS 880-45554/2-A
Matrix: Solid
Analysis Batch: 45537

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45554

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	1036		mg/Kg		104	70 - 130		
Diesel Range Organics (Over C10-C28)			999	987.0		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*116*		*70 - 130*
o-Terphenyl (Surr)	*125*		*70 - 130*

Lab Sample ID: LCSD 880-45554/3-A
Matrix: Solid
Analysis Batch: 45537

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45554

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	1071		mg/Kg		107	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			999	1042		mg/Kg		104	70 - 130	5	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

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

Lab Sample ID: LCSD 880-45554/3-A
Matrix: Solid
Analysis Batch: 45537

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45554

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*112*		*70 - 130*
o-Terphenyl (Surr)	*124*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45558/1-A
Matrix: Solid
Analysis Batch: 45598

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			02/06/23 18:55	1

Lab Sample ID: LCS 880-45558/2-A
Matrix: Solid
Analysis Batch: 45598

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	261.0		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-45558/3-A
Matrix: Solid
Analysis Batch: 45598

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	261.8		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

GC VOA

Prep Batch: 45533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45533/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 45544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24322-1	C-5 4'6"	Total/NA	Solid	8021B	45568
880-24322-2	C-6 4'6"	Total/NA	Solid	8021B	45568
880-24322-3	SW-5 0-4.6"	Total/NA	Solid	8021B	45568
880-24322-4	SW-6 0-4.6"	Total/NA	Solid	8021B	45568
MB 880-45533/5-A	Method Blank	Total/NA	Solid	8021B	45533
MB 880-45568/5-A	Method Blank	Total/NA	Solid	8021B	45568
LCS 880-45568/1-A	Lab Control Sample	Total/NA	Solid	8021B	45568
LCSD 880-45568/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45568

Prep Batch: 45568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24322-1	C-5 4'6"	Total/NA	Solid	5035	
880-24322-2	C-6 4'6"	Total/NA	Solid	5035	
880-24322-3	SW-5 0-4.6"	Total/NA	Solid	5035	
880-24322-4	SW-6 0-4.6"	Total/NA	Solid	5035	
MB 880-45568/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45568/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45568/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 45671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24322-1	C-5 4'6"	Total/NA	Solid	Total BTEX	
880-24322-2	C-6 4'6"	Total/NA	Solid	Total BTEX	
880-24322-3	SW-5 0-4.6"	Total/NA	Solid	Total BTEX	
880-24322-4	SW-6 0-4.6"	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 45537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24322-1	C-5 4'6"	Total/NA	Solid	8015B NM	45554
880-24322-2	C-6 4'6"	Total/NA	Solid	8015B NM	45554
880-24322-3	SW-5 0-4.6"	Total/NA	Solid	8015B NM	45554
880-24322-4	SW-6 0-4.6"	Total/NA	Solid	8015B NM	45554
MB 880-45554/1-A	Method Blank	Total/NA	Solid	8015B NM	45554
LCS 880-45554/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45554
LCSD 880-45554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45554

Prep Batch: 45554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24322-1	C-5 4'6"	Total/NA	Solid	8015NM Prep	
880-24322-2	C-6 4'6"	Total/NA	Solid	8015NM Prep	
880-24322-3	SW-5 0-4.6"	Total/NA	Solid	8015NM Prep	
880-24322-4	SW-6 0-4.6"	Total/NA	Solid	8015NM Prep	
MB 880-45554/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45554/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

GC Semi VOA

Analysis Batch: 45682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24322-1	C-5 4'6"	Total/NA	Solid	8015 NM	
880-24322-2	C-6 4'6"	Total/NA	Solid	8015 NM	
880-24322-3	SW-5 0-4.6"	Total/NA	Solid	8015 NM	
880-24322-4	SW-6 0-4.6"	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24322-1	C-5 4'6"	Soluble	Solid	DI Leach	
880-24322-2	C-6 4'6"	Soluble	Solid	DI Leach	
880-24322-3	SW-5 0-4.6"	Soluble	Solid	DI Leach	
880-24322-4	SW-6 0-4.6"	Soluble	Solid	DI Leach	
MB 880-45558/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45558/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45558/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 45598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24322-1	C-5 4'6"	Soluble	Solid	300.0	45558
880-24322-2	C-6 4'6"	Soluble	Solid	300.0	45558
880-24322-3	SW-5 0-4.6"	Soluble	Solid	300.0	45558
880-24322-4	SW-6 0-4.6"	Soluble	Solid	300.0	45558
MB 880-45558/1-A	Method Blank	Soluble	Solid	300.0	45558
LCS 880-45558/2-A	Lab Control Sample	Soluble	Solid	300.0	45558
LCSD 880-45558/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45558

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Client Sample ID: C-5 4'6"
Date Collected: 02/02/23 14:30
Date Received: 02/06/23 08:40

Lab Sample ID: 880-24322-1
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	45568	02/06/23 10:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45544	02/07/23 00:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45671	02/07/23 09:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			45682	02/07/23 11:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45554	02/06/23 09:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45537	02/07/23 04:15	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	45558	02/06/23 09:26	KS	EET MID
Soluble	Analysis	300.0		10			45598	02/06/23 21:01	CH	EET MID

Client Sample ID: C-6 4'6"
Date Collected: 02/02/23 14:45
Date Received: 02/06/23 08:40

Lab Sample ID: 880-24322-2
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	45568	02/06/23 10:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45544	02/07/23 01:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45671	02/07/23 09:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			45682	02/07/23 11:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45554	02/06/23 09:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45537	02/07/23 04:36	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	45558	02/06/23 09:26	KS	EET MID
Soluble	Analysis	300.0		10			45598	02/06/23 21:05	CH	EET MID

Client Sample ID: SW-5 0-4.6"
Date Collected: 02/02/23 15:00
Date Received: 02/06/23 08:40

Lab Sample ID: 880-24322-3
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			5.02 g	5 mL	45568	02/06/23 10:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45544	02/07/23 01:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45671	02/07/23 09:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			45682	02/07/23 11:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45554	02/06/23 09:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45537	02/07/23 04:58	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	45558	02/06/23 09:26	KS	EET MID
Soluble	Analysis	300.0		20			45598	02/06/23 21:10	CH	EET MID

Client Sample ID: SW-6 0-4.6"
Date Collected: 02/02/23 15:15
Date Received: 02/06/23 08:40

Lab Sample ID: 880-24322-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	45568	02/06/23 10:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45544	02/07/23 01:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45671	02/07/23 09:48	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Client Sample ID: SW-6 0-4.6"

Date Collected: 02/02/23 15:15
Date Received: 02/06/23 08:40

Lab Sample ID: 880-24322-4

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			45682	02/07/23 11:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45554	02/06/23 09:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45537	02/07/23 05:19	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	45558	02/06/23 09:26	KS	EET MID
Soluble	Analysis	300.0		50			45598	02/06/23 21:15	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

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

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24322-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-24322-1	C-5 4'6"	Solid	02/02/23 14:30	02/06/23 08:40
880-24322-2	C-6 4'6"	Solid	02/02/23 14:45	02/06/23 08:40
880-24322-3	SW-5 0-4.6"	Solid	02/02/23 15:00	02/06/23 08:40
880-24322-4	SW-6 0-4.6"	Solid	02/02/23 15:15	02/06/23 08:40

Page 233 of 472

24322 No. 2845

CHAIN-OF-CUSTODY

(Rev. 1) 2/8/2023

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

DATE. 2/3/2023 PAGE 1 OF 1

PO# _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME GRAVITAS SWD STANLEY BATES

LAI PROJECT # 22-0105-03 COLLECTOR SB

Data Reported to Mark Larson/Robert Nelson

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 ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
C-5 4'6"		2/2/23	2:30	S	1				X		X		X	X	X													X	
C-6 - 4'6"		↓	2:45	S	1				‖		X		X	X	X													X	
SW-5 0-4.6"			3:00	S	1				‖		X		X	X	X													X	202
SW-6 0-4.6"		↓	3:15	S	1				‖		X		X	X	X													X	

TOTAL 4

RELINQUISHED BY (Signature) DATE/TIME 2/6/23 8:40 RECEIVED BY (Signature)

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

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

LABORATORY Xenco

880-24322 Chain of Custody

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

LABORATORY USE ONLY:
RECEIVING TEMP 13.1 1.0 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Page 20 of 21
Received by OCD: 5/8/2024 2:07:46 PM
Released to Imaging: 5/31/2024 3:12:53 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-24322-1
SDG Number: 22-0105-03

Login Number: 24322
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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 3/3/2023 3:05:11 PM Revision 1

JOB DESCRIPTION

Gravitas SWD
SDG NUMBER 22-0105-03

JOB NUMBER

880-24920-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

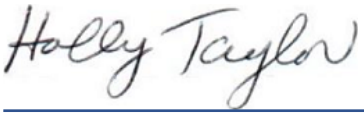
Released to Imaging: 5/31/2024 3:12:55 PM

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Revision 1

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Laboratory Job ID: 880-24920-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 14
Lab Chronicle 16
Certification Summary 18
Method Summary 19
Sample Summary 20
Chain of Custody 21
Receipt Checklists 22

Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, 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: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Job ID: 880-24920-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-24920-1

Revision
The report being provided is a revision of the original report sent on 2/24/2023. The report (revision 1) is being revised to change Sample ID SW-8 3' to C-8 3' per Robert Nelson (email).

Receipt
The samples were received on 2/20/2023 8:45 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.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-7 1' (880-24920-1), SW-7 0-1' (880-24920-2), C-8 3' (880-24920-3) and SW-8 0-3' (880-24920-4).

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: (MB 880-46824/1-A). Evidence of matrix interferences is not obvious.

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

General Chemistry
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-46719 and 880-46719 and analytical batch 880-47190 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: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Client Sample ID: C-7 1'

Date Collected: 02/13/23 10:30
Date Received: 02/20/23 08:45

Lab Sample ID: 880-24920-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/23/23 09:25	02/23/23 23:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/23/23 09:25	02/23/23 23:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/23/23 09:25	02/23/23 23:47	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		02/23/23 09:25	02/23/23 23:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/23/23 09:25	02/23/23 23:47	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/23/23 09:25	02/23/23 23:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*02/23/23 09:25*	*02/23/23 23:47*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*02/23/23 09:25*	*02/23/23 23:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/24/23 14:46	1

Method: SW846 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			02/22/23 16:26	1

Method: SW846 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		02/21/23 08:40	02/21/23 14:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/21/23 08:40	02/21/23 14:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/21/23 08:40	02/21/23 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*98*		*70 - 130*	*02/21/23 08:40*	*02/21/23 14:58*	*1*
o-Terphenyl (Surr)	*109*		*70 - 130*	*02/21/23 08:40*	*02/21/23 14:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7670**		99.8		mg/Kg			02/24/23 11:42	20

Client Sample ID: SW-7 0-1'

Date Collected: 02/13/23 10:45
Date Received: 02/20/23 08:45

Lab Sample ID: 880-24920-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:07	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:07	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:07	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/23/23 09:25	02/24/23 00:07	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:07	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/23/23 09:25	02/24/23 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/23/23 09:25*	*02/24/23 00:07*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*02/23/23 09:25*	*02/24/23 00:07*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Client Sample ID: SW-7 0-1'

Lab Sample ID: 880-24920-2
Matrix: Solid
Date Collected: 02/13/23 10:45
Date Received: 02/20/23 08:45

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/24/23 14:46	1

Method: SW846 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			02/22/23 16:26	1

Method: SW846 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		02/21/23 08:40	02/21/23 15:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/21/23 08:40	02/21/23 15:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/21/23 08:40	02/21/23 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*106*		*70 - 130*	*02/21/23 08:40*	*02/21/23 15:55*	*1*
o-Terphenyl (Surr)	*113*		*70 - 130*	*02/21/23 08:40*	*02/21/23 15:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6570**		99.0		mg/Kg			02/24/23 11:47	20

Client Sample ID: C-8 3'

Lab Sample ID: 880-24920-3
Matrix: Solid
Date Collected: 02/13/23 11:50
Date Received: 02/20/23 08:45

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:28	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/23/23 09:25	02/24/23 00:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/23/23 09:25	02/24/23 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*02/23/23 09:25*	*02/24/23 00:28*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*02/23/23 09:25*	*02/24/23 00:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/24/23 14:46	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/22/23 16:26	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/21/23 08:40	02/21/23 16:16	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/21/23 08:40	02/21/23 16:16	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Client Sample ID: C-8 3'

Date Collected: 02/13/23 11:50
Date Received: 02/20/23 08:45

Lab Sample ID: 880-24920-3

Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/21/23 08:40	02/21/23 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*115*		*70 - 130*	*02/21/23 08:40*	*02/21/23 16:16*	*1*
o-Terphenyl (Surr)	*121*		*70 - 130*	*02/21/23 08:40*	*02/21/23 16:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3930**		50.0		mg/Kg			02/24/23 11:51	10

Client Sample ID: SW-8 0-3'

Date Collected: 02/13/23 11:30
Date Received: 02/20/23 08:45

Lab Sample ID: 880-24920-4

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:48	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/23/23 09:25	02/24/23 00:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/23/23 09:25	02/24/23 00:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/23/23 09:25	02/24/23 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*02/23/23 09:25*	*02/24/23 00:48*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*02/23/23 09:25*	*02/24/23 00:48*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/24/23 14:46	1

Method: SW846 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			02/22/23 16:26	1

Method: SW846 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		02/21/23 08:40	02/21/23 16:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/21/23 08:40	02/21/23 16:38	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/21/23 08:40	02/21/23 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*93*		*70 - 130*	*02/21/23 08:40*	*02/21/23 16:38*	*1*
o-Terphenyl (Surr)	*103*		*70 - 130*	*02/21/23 08:40*	*02/21/23 16:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1240**		24.9		mg/Kg			02/24/23 12:29	5

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-24920-1	C-7 1'	107	82
880-24920-1 MS	C-7 1'	118	105
880-24920-1 MSD	C-7 1'	115	96
880-24920-2	SW-7 0-1'	111	85
880-24920-3	C-8 3'	109	84
880-24920-4	SW-8 0-3'	115	86
LCS 880-47007/1-A	Lab Control Sample	122	100
LCSD 880-47007/2-A	Lab Control Sample Dup	110	104
MB 880-47001/5-A	Method Blank	76	87
MB 880-47007/5-A	Method Blank	78	94

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-24920-1	C-7 1'	98	109
880-24920-2	SW-7 0-1'	106	113
880-24920-3	C-8 3'	115	121
880-24920-4	SW-8 0-3'	93	103
LCS 880-46824/2-A	Lab Control Sample	83	90
LCSD 880-46824/3-A	Lab Control Sample Dup	82	91
MB 880-46824/1-A	Method Blank	137 S1+	156 S1+

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-47001/5-A
Matrix: Solid
Analysis Batch: 47000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47001

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/23/23 08:38	02/23/23 11:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/23/23 08:38	02/23/23 11:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/23/23 08:38	02/23/23 11:47	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/23/23 08:38	02/23/23 11:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/23/23 08:38	02/23/23 11:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/23/23 08:38	02/23/23 11:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/23/23 08:38*	*02/23/23 11:47*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*02/23/23 08:38*	*02/23/23 11:47*	*1*

Lab Sample ID: MB 880-47007/5-A
Matrix: Solid
Analysis Batch: 47000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47007

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/23/23 09:25	02/23/23 23:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/23/23 09:25	02/23/23 23:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/23/23 09:25	02/23/23 23:25	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/23/23 09:25	02/23/23 23:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/23/23 09:25	02/23/23 23:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/23/23 09:25	02/23/23 23:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*02/23/23 09:25*	*02/23/23 23:25*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/23/23 09:25*	*02/23/23 23:25*	*1*

Lab Sample ID: LCS 880-47007/1-A
Matrix: Solid
Analysis Batch: 47000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47007

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09393		mg/Kg		94	70 - 130		
Toluene			0.100	0.09350		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.1024		mg/Kg		102	70 - 130		
m,p-Xylenes			0.200	0.2149		mg/Kg		107	70 - 130		
o-Xylene			0.100	0.1176		mg/Kg		118	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-47007/2-A
Matrix: Solid
Analysis Batch: 47000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47007

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08161		mg/Kg		82	70 - 130	14	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

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

Lab Sample ID: LCSD 880-47007/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 47000 — **Prep Batch: 47007**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08564		mg/Kg		86	70 - 130	9	35
Ethylbenzene			0.100	0.09059		mg/Kg		91	70 - 130	12	35
m,p-Xylenes			0.200	0.1900		mg/Kg		95	70 - 130	12	35
o-Xylene			0.100	0.09988		mg/Kg		100	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 880-24920-1 MS — **Client Sample ID: C-7 1'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 47000 — **Prep Batch: 47007**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.09590		mg/Kg		96	70 - 130
Toluene	<0.00200	U	0.100	0.09571		mg/Kg		94	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.1007		mg/Kg		99	70 - 130
m,p-Xylenes	<0.00399	U	0.201	0.2081		mg/Kg		102	70 - 130
o-Xylene	<0.00200	U	0.100	0.1062		mg/Kg		105	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 880-24920-1 MSD — **Client Sample ID: C-7 1'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 47000 — **Prep Batch: 47007**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.08695		mg/Kg		88	70 - 130	10	35
Toluene	<0.00200	U	0.0990	0.08891		mg/Kg		89	70 - 130	7	35
Ethylbenzene	<0.00200	U	0.0990	0.09431		mg/Kg		94	70 - 130	7	35
m,p-Xylenes	<0.00399	U	0.198	0.1968		mg/Kg		98	70 - 130	6	35
o-Xylene	<0.00200	U	0.0990	0.09940		mg/Kg		99	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

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

Lab Sample ID: MB 880-46824/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46831 — **Prep Batch: 46824**

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		02/21/23 08:40	02/21/23 08:17	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-46824/1-A
Matrix: Solid
Analysis Batch: 46831

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46824

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		02/21/23 08:40	02/21/23 08:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/21/23 08:40	02/21/23 08:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*137*	*S1+*	*70 - 130*	*02/21/23 08:40*	*02/21/23 08:17*	*1*
o-Terphenyl (Surr)	*156*	*S1+*	*70 - 130*	*02/21/23 08:40*	*02/21/23 08:17*	*1*

Lab Sample ID: LCS 880-46824/2-A
Matrix: Solid
Analysis Batch: 46831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46824

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1084		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1170		mg/Kg		117	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*83*		*70 - 130*
o-Terphenyl (Surr)	*90*		*70 - 130*

Lab Sample ID: LCSD 880-46824/3-A
Matrix: Solid
Analysis Batch: 46831

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46824

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1130		mg/Kg		113	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1043		mg/Kg		104	70 - 130	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*82*		*70 - 130*
o-Terphenyl (Surr)	*91*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46719/1-A
Matrix: Solid
Analysis Batch: 47190

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			02/24/23 11:09	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-46719/2-A
Matrix: Solid
Analysis Batch: 47190

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	246.9		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-46719/3-A
Matrix: Solid
Analysis Batch: 47190

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	243.3		mg/Kg		97	90 - 110	1	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

GC VOA

Analysis Batch: 47000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24920-1	C-7 1'	Total/NA	Solid	8021B	47007
880-24920-2	SW-7 0-1'	Total/NA	Solid	8021B	47007
880-24920-3	C-8 3'	Total/NA	Solid	8021B	47007
880-24920-4	SW-8 0-3'	Total/NA	Solid	8021B	47007
MB 880-47001/5-A	Method Blank	Total/NA	Solid	8021B	47001
MB 880-47007/5-A	Method Blank	Total/NA	Solid	8021B	47007
LCS 880-47007/1-A	Lab Control Sample	Total/NA	Solid	8021B	47007
LCSD 880-47007/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	47007
880-24920-1 MS	C-7 1'	Total/NA	Solid	8021B	47007
880-24920-1 MSD	C-7 1'	Total/NA	Solid	8021B	47007

Prep Batch: 47001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-47001/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 47007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24920-1	C-7 1'	Total/NA	Solid	5035	
880-24920-2	SW-7 0-1'	Total/NA	Solid	5035	
880-24920-3	C-8 3'	Total/NA	Solid	5035	
880-24920-4	SW-8 0-3'	Total/NA	Solid	5035	
MB 880-47007/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-47007/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-47007/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24920-1 MS	C-7 1'	Total/NA	Solid	5035	
880-24920-1 MSD	C-7 1'	Total/NA	Solid	5035	

Analysis Batch: 47192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24920-1	C-7 1'	Total/NA	Solid	Total BTEX	
880-24920-2	SW-7 0-1'	Total/NA	Solid	Total BTEX	
880-24920-3	C-8 3'	Total/NA	Solid	Total BTEX	
880-24920-4	SW-8 0-3'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 46824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24920-1	C-7 1'	Total/NA	Solid	8015NM Prep	
880-24920-2	SW-7 0-1'	Total/NA	Solid	8015NM Prep	
880-24920-3	C-8 3'	Total/NA	Solid	8015NM Prep	
880-24920-4	SW-8 0-3'	Total/NA	Solid	8015NM Prep	
MB 880-46824/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46824/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46824/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24920-1	C-7 1'	Total/NA	Solid	8015B NM	46824
880-24920-2	SW-7 0-1'	Total/NA	Solid	8015B NM	46824
880-24920-3	C-8 3'	Total/NA	Solid	8015B NM	46824

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Analysis Batch: 46831 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24920-4	SW-8 0-3'	Total/NA	Solid	8015B NM	46824
MB 880-46824/1-A	Method Blank	Total/NA	Solid	8015B NM	46824
LCS 880-46824/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46824
LCSD 880-46824/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46824

Analysis Batch: 46975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24920-1	C-7 1'	Total/NA	Solid	8015 NM	
880-24920-2	SW-7 0-1'	Total/NA	Solid	8015 NM	
880-24920-3	C-8 3'	Total/NA	Solid	8015 NM	
880-24920-4	SW-8 0-3'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24920-1	C-7 1'	Soluble	Solid	DI Leach	
880-24920-2	SW-7 0-1'	Soluble	Solid	DI Leach	
880-24920-3	C-8 3'	Soluble	Solid	DI Leach	
880-24920-4	SW-8 0-3'	Soluble	Solid	DI Leach	
MB 880-46719/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46719/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46719/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 47190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24920-1	C-7 1'	Soluble	Solid	300.0	46719
880-24920-2	SW-7 0-1'	Soluble	Solid	300.0	46719
880-24920-3	C-8 3'	Soluble	Solid	300.0	46719
880-24920-4	SW-8 0-3'	Soluble	Solid	300.0	46719
MB 880-46719/1-A	Method Blank	Soluble	Solid	300.0	46719
LCS 880-46719/2-A	Lab Control Sample	Soluble	Solid	300.0	46719
LCSD 880-46719/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46719

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Client Sample ID: C-7 1'
Date Collected: 02/13/23 10:30
Date Received: 02/20/23 08:45

Lab Sample ID: 880-24920-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	47007	02/23/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47000	02/23/23 23:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47192	02/24/23 14:46	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46975	02/22/23 16:26	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46824	02/21/23 08:40	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46831	02/21/23 14:58	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		20			47190	02/24/23 11:42	CH	EET MID

Client Sample ID: SW-7 0-1'
Date Collected: 02/13/23 10:45
Date Received: 02/20/23 08:45

Lab Sample ID: 880-24920-2
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	47007	02/23/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47000	02/24/23 00:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47192	02/24/23 14:46	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46975	02/22/23 16:26	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46824	02/21/23 08:40	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46831	02/21/23 15:55	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		20			47190	02/24/23 11:47	CH	EET MID

Client Sample ID: C-8 3'
Date Collected: 02/13/23 11:50
Date Received: 02/20/23 08:45

Lab Sample ID: 880-24920-3
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			5.02 g	5 mL	47007	02/23/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47000	02/24/23 00:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47192	02/24/23 14:46	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46975	02/22/23 16:26	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	46824	02/21/23 08:40	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46831	02/21/23 16:16	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		10			47190	02/24/23 11:51	CH	EET MID

Client Sample ID: SW-8 0-3'
Date Collected: 02/13/23 11:30
Date Received: 02/20/23 08:45

Lab Sample ID: 880-24920-4
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			5.03 g	5 mL	47007	02/23/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47000	02/24/23 00:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47192	02/24/23 14:46	AJ	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Client Sample ID: SW-8 0-3'

Date Collected: 02/13/23 11:30
Date Received: 02/20/23 08:45

Lab Sample ID: 880-24920-4

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			46975	02/22/23 16:26	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46824	02/21/23 08:40	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46831	02/21/23 16:38	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		5			47190	02/24/23 12:29	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

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

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-24920-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-24920-1	C-7 1'	Solid	02/13/23 10:30	02/20/23 08:45
880-24920-2	SW-7 0-1'	Solid	02/13/23 10:45	02/20/23 08:45
880-24920-3	C-8 3'	Solid	02/13/23 11:50	02/20/23 08:45
880-24920-4	SW-8 0-3'	Solid	02/13/23 11:30	02/20/23 08:45

Released to Imaging: 5/31/2024 3:12:53 PM
Received by OCD: 5/8/2024 2:07:46 PM

24920 No. 2846

CHAIN-OF-CUSTODY

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

Data Reported to Mark Larson / Robert Nelson

DATE 2/17/23 PAGE 1 OF 1

PO# _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME GRAVITAS SWD

LAI PROJECT # 22-0105-03 COLLECTOR STAN BATES

TRRP report? ☐ Yes ☒ No

TIME ZONE Time zone/State: MNT / 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	ANALYSES	FIELD NOTES
C-7 1'		2/13/23	10:30	S	1				X	X	X X X	
SW-7 0-1'		2/13/23	10:45									X 202
C-8 3'		2/13/23	11:50									
SW-8 0-3'		2/13/23	11:30									

TOTAL 4

880-24920 Chain of Custody

RELINQUISHED BY (Signature) Pamela Gallegos	DATE/TIME 2/17 16:50	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME 2/20 08:45	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY

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

LABORATORY USE ONLY:
RECEIVING TEMP 5.2/4.7 THERM# IR8 -30
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☑ HAND DELIVERED

3/3/2023 (Rev. 1)

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-24920-1
SDG Number: 22-0105-03

Login Number: 24920
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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 3/9/2023 1:49:14 PM

JOB DESCRIPTION

Gravitas
SDG NUMBER 22-0105-03

JOB NUMBER

880-25188-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 5/31/2024 3:12:55 PM

my EOL

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Holly Taylor

Generated
3/9/2023 1:49:14 PM

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Laboratory Job ID: 880-25188-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
Surrogate Summary 11
QC Sample Results 12
QC Association Summary 17
Lab Chronicle 20
Certification Summary 22
Method Summary 23
Sample Summary 24
Chain of Custody 25
Receipt Checklists 26

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-25188-1
Project/Site: Gravitas SDG: 22-0105-03

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
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. Job ID: 880-25188-1
Project/Site: Gravitas SDG: 22-0105-03

Job ID: 880-25188-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-25188-1

Receipt
The samples were received on 2/27/2023 9:41 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-9 1' (880-25188-1), SW-9 0-1' (880-25188-2), C-10 2' (880-25188-3), SW-10 0-2' (880-25188-4), C-11 4' (880-25188-5) and SW-11 0-4' (880-25188-6).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: C-9 1' (880-25188-1), SW-9 0-1' (880-25188-2), C-10 2' (880-25188-3), SW-10 0-2' (880-25188-4), C-11 4' (880-25188-5), (CCV 880-48027/20), (LCS 880-47354/1-A), (890-4234-A-1-F) and (890-4234-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-47354 and analytical batch 880-48027 recovered outside control limits for the following analytes: m,p-Xylenes. These analytes were biased high in the LCSD but only an LCS or LCSD is required; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-47354/1-A), (LCSD 880-47354/2-A) and (890-4234-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SW-11 0-4' (880-25188-6), (CCV 880-48085/33), (LCS 880-48014/1-A), (LCSD 880-48014/2-A), (880-25537-A-41-I), (880-25537-A-41-G MS) and (880-25537-A-41-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: The method blank for preparation batch 880-47331 and analytical batch 880-47385 contained Gasoline Range Organics (GRO)-C6-C10 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.

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: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

Client Sample ID: C-9 1'

Lab Sample ID: 880-25188-1
Matrix: Solid
Date Collected: 02/23/23 13:10
Date Received: 02/27/23 09:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/23 14:16	03/08/23 01:02	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/23 14:16	03/08/23 01:02	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/23 14:16	03/08/23 01:02	1
m,p-Xylenes	<0.00396	U *+	0.00396		mg/Kg		03/07/23 14:16	03/08/23 01:02	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/23 14:16	03/08/23 01:02	1
Xylenes, Total	<0.00396	U *+	0.00396		mg/Kg		03/07/23 14:16	03/08/23 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*189*	*S1+*	*70 - 130*	*03/07/23 14:16*	*03/08/23 01:02*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*03/07/23 14:16*	*03/08/23 01:02*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/08/23 14:39	1

Method: SW846 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			03/01/23 14:20	1

Method: SW846 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		02/27/23 14:00	02/28/23 13:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/27/23 14:00	02/28/23 13:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/27/23 14:00	02/28/23 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*97*		*70 - 130*	*02/27/23 14:00*	*02/28/23 13:48*	*1*
o-Terphenyl (Surr)	*96*		*70 - 130*	*02/27/23 14:00*	*02/28/23 13:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8670**		101		mg/Kg			03/03/23 13:38	20

Client Sample ID: SW-9 0-1'

Lab Sample ID: 880-25188-2
Matrix: Solid
Date Collected: 02/23/23 13:40
Date Received: 02/27/23 09:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/23 14:16	03/08/23 01:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/23 14:16	03/08/23 01:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/23 14:16	03/08/23 01:28	1
m,p-Xylenes	<0.00398	U *+	0.00398		mg/Kg		03/07/23 14:16	03/08/23 01:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/23 14:16	03/08/23 01:28	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		03/07/23 14:16	03/08/23 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*195*	*S1+*	*70 - 130*	*03/07/23 14:16*	*03/08/23 01:28*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*03/07/23 14:16*	*03/08/23 01:28*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

Client Sample ID: SW-9 0-1'

Lab Sample ID: 880-25188-2
Matrix: Solid
Date Collected: 02/23/23 13:40
Date Received: 02/27/23 09:41

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/08/23 14:39	1

Method: SW846 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			03/01/23 14:20	1

Method: SW846 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		02/27/23 14:00	02/28/23 14:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/27/23 14:00	02/28/23 14:10	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/27/23 14:00	02/28/23 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*110*		*70 - 130*	*02/27/23 14:00*	*02/28/23 14:10*	*1*
o-Terphenyl (Surr)	*105*		*70 - 130*	*02/27/23 14:00*	*02/28/23 14:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2650**		99.2		mg/Kg			03/03/23 13:44	20

Client Sample ID: C-10 2'

Lab Sample ID: 880-25188-3
Matrix: Solid
Date Collected: 02/23/23 14:45
Date Received: 02/27/23 09:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/23 14:16	03/08/23 01:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/23 14:16	03/08/23 01:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/23 14:16	03/08/23 01:54	1
m,p-Xylenes	<0.00399	U *+	0.00399		mg/Kg		03/07/23 14:16	03/08/23 01:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/23 14:16	03/08/23 01:54	1
Xylenes, Total	<0.00399	U *+	0.00399		mg/Kg		03/07/23 14:16	03/08/23 01:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*182*	*S1+*	*70 - 130*	*03/07/23 14:16*	*03/08/23 01:54*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*03/07/23 14:16*	*03/08/23 01:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/08/23 14:39	1

Method: SW846 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			03/01/23 14:20	1

Method: SW846 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		02/27/23 14:00	02/28/23 14:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/27/23 14:00	02/28/23 14:31	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-25188-1
Project/Site: Gravitas SDG: 22-0105-03

Client Sample ID: C-10 2' — Lab Sample ID: 880-25188-3

Date Collected: 02/23/23 14:45 **Matrix: Solid**
Date Received: 02/27/23 09:41

Method: SW846 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		02/27/23 14:00	02/28/23 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*121*		*70 - 130*	*02/27/23 14:00*	*02/28/23 14:31*	*1*
o-Terphenyl (Surr)	*117*		*70 - 130*	*02/27/23 14:00*	*02/28/23 14:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**316**		5.05		mg/Kg			03/02/23 21:12	1

Client Sample ID: SW-10 0-2' — Lab Sample ID: 880-25188-4

Date Collected: 02/22/23 15:00 **Matrix: Solid**
Date Received: 02/27/23 09:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/23 12:10	03/07/23 22:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/23 12:10	03/07/23 22:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/23 12:10	03/07/23 22:16	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/06/23 12:10	03/07/23 22:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/23 12:10	03/07/23 22:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/23 12:10	03/07/23 22:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*03/06/23 12:10*	*03/07/23 22:16*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/23 12:10*	*03/07/23 22:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/08/23 12:33	1

Method: SW846 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			03/01/23 14:20	1

Method: SW846 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		02/27/23 14:00	02/28/23 14:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/27/23 14:00	02/28/23 14:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/27/23 14:00	02/28/23 14:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*103*		*70 - 130*	*02/27/23 14:00*	*02/28/23 14:53*	*1*
o-Terphenyl (Surr)	*102*		*70 - 130*	*02/27/23 14:00*	*02/28/23 14:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2780**		24.9		mg/Kg			03/02/23 20:57	5

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

Client Sample ID: C-11 4'

Lab Sample ID: 880-25188-5
Matrix: Solid
Date Collected: 02/24/23 11:30
Date Received: 02/27/23 09:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/07/23 14:16	03/08/23 02:47	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/07/23 14:16	03/08/23 02:47	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/07/23 14:16	03/08/23 02:47	1
m,p-Xylenes	<0.00404	U *+	0.00404		mg/Kg		03/07/23 14:16	03/08/23 02:47	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/07/23 14:16	03/08/23 02:47	1
Xylenes, Total	<0.00404	U *+	0.00404		mg/Kg		03/07/23 14:16	03/08/23 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*189*	*S1+*	*70 - 130*	*03/07/23 14:16*	*03/08/23 02:47*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*03/07/23 14:16*	*03/08/23 02:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/08/23 14:39	1

Method: SW846 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			03/01/23 14:20	1

Method: SW846 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		02/27/23 14:00	02/28/23 15:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/27/23 14:00	02/28/23 15:15	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/27/23 14:00	02/28/23 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*121*		*70 - 130*	*02/27/23 14:00*	*02/28/23 15:15*	*1*
o-Terphenyl (Surr)	*116*		*70 - 130*	*02/27/23 14:00*	*02/28/23 15:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1140**		25.0		mg/Kg			03/02/23 21:02	5

Client Sample ID: SW-11 0-4'

Lab Sample ID: 880-25188-6
Matrix: Solid
Date Collected: 02/24/23 11:45
Date Received: 02/27/23 09:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00203	U	0.00203		mg/Kg		03/07/23 10:17	03/09/23 01:59	1
Toluene	<0.00203	U	0.00203		mg/Kg		03/07/23 10:17	03/09/23 01:59	1
Ethylbenzene	<0.00203	U	0.00203		mg/Kg		03/07/23 10:17	03/09/23 01:59	1
m,p-Xylenes	<0.00405	U *+	0.00405		mg/Kg		03/07/23 10:17	03/09/23 01:59	1
o-Xylene	<0.00203	U *+	0.00203		mg/Kg		03/07/23 10:17	03/09/23 01:59	1
Xylenes, Total	<0.00405	U *+	0.00405		mg/Kg		03/07/23 10:17	03/09/23 01:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*03/07/23 10:17*	*03/09/23 01:59*	*1*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*03/07/23 10:17*	*03/09/23 01:59*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

Client Sample ID: SW-11 0-4'

Date Collected: 02/24/23 11:45
Date Received: 02/27/23 09:41

Lab Sample ID: 880-25188-6

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00405	U	0.00405		mg/Kg			03/09/23 14:18	1

Method: SW846 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			03/01/23 14:20	1

Method: SW846 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		02/27/23 14:00	02/28/23 15:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/27/23 14:00	02/28/23 15:59	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/27/23 14:00	02/28/23 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*113*		*70 - 130*	*02/27/23 14:00*	*02/28/23 15:59*	*1*
o-Terphenyl (Surr)	*109*		*70 - 130*	*02/27/23 14:00*	*02/28/23 15:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**74.6**		4.95		mg/Kg			03/02/23 21:07	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-25188-1	C-9 1'	189 S1+	86
880-25188-2	SW-9 0-1'	195 S1+	82
880-25188-3	C-10 2'	182 S1+	80
880-25188-4	SW-10 0-2'	116	108
880-25188-5	C-11 4'	189 S1+	83
880-25188-6	SW-11 0-4'	89	68 S1-
LCS 880-47354/1-A	Lab Control Sample	161 S1+	86
LCS 880-47929/1-A	Lab Control Sample	116	112
LCS 880-48014/1-A	Lab Control Sample	153 S1+	93
LCSD 880-47354/2-A	Lab Control Sample Dup	181 S1+	86
LCSD 880-47929/2-A	Lab Control Sample Dup	111	109
LCSD 880-48014/2-A	Lab Control Sample Dup	130	92
MB 880-47354/5-A	Method Blank	104	72
MB 880-47929/5-A	Method Blank	104	100
MB 880-48014/5-A	Method Blank	83	72
MB 880-48088/5-A	Method Blank	101	82

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-25188-1	C-9 1'	97	96
880-25188-2	SW-9 0-1'	110	105
880-25188-3	C-10 2'	121	117
880-25188-4	SW-10 0-2'	103	102
880-25188-5	C-11 4'	121	116
880-25188-6	SW-11 0-4'	113	109
LCS 880-47331/2-A	Lab Control Sample	77	81
LCSD 880-47331/3-A	Lab Control Sample Dup	89	85
MB 880-47331/1-A	Method Blank	105	104

Surrogate Legend

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-47354/5-A
Matrix: Solid
Analysis Batch: 48027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47354

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/27/23 14:16	03/07/23 17:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/27/23 14:16	03/07/23 17:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/27/23 14:16	03/07/23 17:36	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/27/23 14:16	03/07/23 17:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/27/23 14:16	03/07/23 17:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/27/23 14:16	03/07/23 17:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/27/23 14:16*	*03/07/23 17:36*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*02/27/23 14:16*	*03/07/23 17:36*	*1*

Lab Sample ID: LCS 880-47354/1-A
Matrix: Solid
Analysis Batch: 48027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47354

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1211		mg/Kg		121	70 - 130		
Toluene			0.100	0.1108		mg/Kg		111	70 - 130		
Ethylbenzene			0.100	0.1196		mg/Kg		120	70 - 130		
m,p-Xylenes			0.200	0.2575		mg/Kg		129	70 - 130		
o-Xylene			0.100	0.1171		mg/Kg		117	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*161*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: LCSD 880-47354/2-A
Matrix: Solid
Analysis Batch: 48027

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47354

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1298		mg/Kg		130	70 - 130	7	35
Toluene			0.100	0.1281		mg/Kg		128	70 - 130	14	35
Ethylbenzene			0.100	0.1261		mg/Kg		126	70 - 130	5	35
m,p-Xylenes			0.200	0.2727	*+	mg/Kg		136	70 - 130	6	35
o-Xylene			0.100	0.1250		mg/Kg		125	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*181*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: MB 880-47929/5-A
Matrix: Solid
Analysis Batch: 47994

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47929

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/06/23 12:10	03/07/23 13:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/06/23 12:10	03/07/23 13:19	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-47929/5-A
Matrix: Solid
Analysis Batch: 47994

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47929

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/06/23 12:10	03/07/23 13:19	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/06/23 12:10	03/07/23 13:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/06/23 12:10	03/07/23 13:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/06/23 12:10	03/07/23 13:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/06/23 12:10*	*03/07/23 13:19*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/06/23 12:10*	*03/07/23 13:19*	*1*

Lab Sample ID: LCS 880-47929/1-A
Matrix: Solid
Analysis Batch: 47994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47929

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1017		mg/Kg		102	70 - 130		
Toluene			0.100	0.1036		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1140		mg/Kg		114	70 - 130		
m,p-Xylenes			0.200	0.2451		mg/Kg		123	70 - 130		
o-Xylene			0.100	0.1197		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: LCSD 880-47929/2-A
Matrix: Solid
Analysis Batch: 47994

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47929

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08336		mg/Kg		83	70 - 130	20	35
Toluene			0.100	0.08120		mg/Kg		81	70 - 130	24	35
Ethylbenzene			0.100	0.08464		mg/Kg		85	70 - 130	30	35
m,p-Xylenes			0.200	0.1812		mg/Kg		91	70 - 130	30	35
o-Xylene			0.100	0.09081		mg/Kg		91	70 - 130	27	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: MB 880-48014/5-A
Matrix: Solid
Analysis Batch: 48085

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48014

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/23 10:17	03/08/23 22:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/23 10:17	03/08/23 22:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/23 10:17	03/08/23 22:54	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/07/23 10:17	03/08/23 22:54	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-48014/5-A
Matrix: Solid
Analysis Batch: 48085

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48014

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/23 10:17	03/08/23 22:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/23 10:17	03/08/23 22:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*03/07/23 10:17*	*03/08/23 22:54*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*03/07/23 10:17*	*03/08/23 22:54*	*1*

Lab Sample ID: LCS 880-48014/1-A
Matrix: Solid
Analysis Batch: 48085

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48014

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1104		mg/Kg		110	70 - 130		
Toluene			0.100	0.1004		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.1272		mg/Kg		127	70 - 130		
m,p-Xylenes			0.200	0.2872	*+	mg/Kg		144	70 - 130		
o-Xylene			0.100	0.1505	*+	mg/Kg		151	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*153*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 880-48014/2-A
Matrix: Solid
Analysis Batch: 48085

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48014

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1080		mg/Kg		108	70 - 130	2	35
Toluene			0.100	0.09981		mg/Kg		100	70 - 130	1	35
Ethylbenzene			0.100	0.1247		mg/Kg		125	70 - 130	2	35
m,p-Xylenes			0.200	0.2786	*+	mg/Kg		139	70 - 130	3	35
o-Xylene			0.100	0.1426	*+	mg/Kg		143	70 - 130	5	35

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

Lab Sample ID: MB 880-48088/5-A
Matrix: Solid
Analysis Batch: 48085

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48088

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/08/23 09:05	03/08/23 11:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/08/23 09:05	03/08/23 11:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/08/23 09:05	03/08/23 11:09	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/08/23 09:05	03/08/23 11:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/08/23 09:05	03/08/23 11:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/08/23 09:05	03/08/23 11:09	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	03/08/23 09:05	03/08/23 11:09	1
1,4-Difluorobenzene (Surr)	82		70 - 130	03/08/23 09:05	03/08/23 11:09	1

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

Lab Sample ID: MB 880-47331/1-A
Matrix: Solid
Analysis Batch: 47385

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47331

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		02/27/23 14:00	02/28/23 08:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/27/23 14:00	02/28/23 08:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/27/23 14:00	02/28/23 08:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	105		70 - 130	02/27/23 14:00	02/28/23 08:39	1
o-Terphenyl (Surr)	104		70 - 130	02/27/23 14:00	02/28/23 08:39	1

Lab Sample ID: LCS 880-47331/2-A
Matrix: Solid
Analysis Batch: 47385

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47331

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	809.0		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	817.2		mg/Kg		82	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	77		70 - 130
o-Terphenyl (Surr)	81		70 - 130

Lab Sample ID: LCSD 880-47331/3-A
Matrix: Solid
Analysis Batch: 47385

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47331

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	866.0		mg/Kg		87	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	875.2		mg/Kg		88	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	89		70 - 130
o-Terphenyl (Surr)	85		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-47615/1-A
Matrix: Solid
Analysis Batch: 47673

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			03/02/23 19:59	1

Lab Sample ID: LCS 880-47615/2-A
Matrix: Solid
Analysis Batch: 47673

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	256.4		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-47615/3-A
Matrix: Solid
Analysis Batch: 47673

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	256.0		mg/Kg		102	90 - 110	0	20

Lab Sample ID: MB 880-47619/1-A
Matrix: Solid
Analysis Batch: 47720

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			03/03/23 11:34	1

Lab Sample ID: LCS 880-47619/2-A
Matrix: Solid
Analysis Batch: 47720

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	243.1		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-47619/3-A
Matrix: Solid
Analysis Batch: 47720

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	243.1		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

GC VOA

Prep Batch: 47354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-1	C-9 1'	Total/NA	Solid	5035	
880-25188-2	SW-9 0-1'	Total/NA	Solid	5035	
880-25188-3	C-10 2'	Total/NA	Solid	5035	
880-25188-5	C-11 4'	Total/NA	Solid	5035	
MB 880-47354/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-47354/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-47354/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 47929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-4	SW-10 0-2'	Total/NA	Solid	5035	
MB 880-47929/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-47929/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-47929/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 47994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-4	SW-10 0-2'	Total/NA	Solid	8021B	47929
MB 880-47929/5-A	Method Blank	Total/NA	Solid	8021B	47929
LCS 880-47929/1-A	Lab Control Sample	Total/NA	Solid	8021B	47929
LCSD 880-47929/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	47929

Prep Batch: 48014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-6	SW-11 0-4'	Total/NA	Solid	5035	
MB 880-48014/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-48014/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-48014/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 48027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-1	C-9 1'	Total/NA	Solid	8021B	47354
880-25188-2	SW-9 0-1'	Total/NA	Solid	8021B	47354
880-25188-3	C-10 2'	Total/NA	Solid	8021B	47354
880-25188-5	C-11 4'	Total/NA	Solid	8021B	47354
MB 880-47354/5-A	Method Blank	Total/NA	Solid	8021B	47354
LCS 880-47354/1-A	Lab Control Sample	Total/NA	Solid	8021B	47354
LCSD 880-47354/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	47354

Analysis Batch: 48085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-6	SW-11 0-4'	Total/NA	Solid	8021B	48014
MB 880-48014/5-A	Method Blank	Total/NA	Solid	8021B	48014
MB 880-48088/5-A	Method Blank	Total/NA	Solid	8021B	48088
LCS 880-48014/1-A	Lab Control Sample	Total/NA	Solid	8021B	48014
LCSD 880-48014/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	48014

Prep Batch: 48088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-48088/5-A	Method Blank	Total/NA	Solid	5035	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

GC VOA

Analysis Batch: 48118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-1	C-9 1'	Total/NA	Solid	Total BTEX	
880-25188-2	SW-9 0-1'	Total/NA	Solid	Total BTEX	
880-25188-3	C-10 2'	Total/NA	Solid	Total BTEX	
880-25188-4	SW-10 0-2'	Total/NA	Solid	Total BTEX	
880-25188-5	C-11 4'	Total/NA	Solid	Total BTEX	
880-25188-6	SW-11 0-4'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 47331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-1	C-9 1'	Total/NA	Solid	8015NM Prep	
880-25188-2	SW-9 0-1'	Total/NA	Solid	8015NM Prep	
880-25188-3	C-10 2'	Total/NA	Solid	8015NM Prep	
880-25188-4	SW-10 0-2'	Total/NA	Solid	8015NM Prep	
880-25188-5	C-11 4'	Total/NA	Solid	8015NM Prep	
880-25188-6	SW-11 0-4'	Total/NA	Solid	8015NM Prep	
MB 880-47331/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47331/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47331/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 47385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-1	C-9 1'	Total/NA	Solid	8015B NM	47331
880-25188-2	SW-9 0-1'	Total/NA	Solid	8015B NM	47331
880-25188-3	C-10 2'	Total/NA	Solid	8015B NM	47331
880-25188-4	SW-10 0-2'	Total/NA	Solid	8015B NM	47331
880-25188-5	C-11 4'	Total/NA	Solid	8015B NM	47331
880-25188-6	SW-11 0-4'	Total/NA	Solid	8015B NM	47331
MB 880-47331/1-A	Method Blank	Total/NA	Solid	8015B NM	47331
LCS 880-47331/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47331
LCSD 880-47331/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47331

Analysis Batch: 47543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-1	C-9 1'	Total/NA	Solid	8015 NM	
880-25188-2	SW-9 0-1'	Total/NA	Solid	8015 NM	
880-25188-3	C-10 2'	Total/NA	Solid	8015 NM	
880-25188-4	SW-10 0-2'	Total/NA	Solid	8015 NM	
880-25188-5	C-11 4'	Total/NA	Solid	8015 NM	
880-25188-6	SW-11 0-4'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 47615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-3	C-10 2'	Soluble	Solid	DI Leach	
880-25188-4	SW-10 0-2'	Soluble	Solid	DI Leach	
880-25188-5	C-11 4'	Soluble	Solid	DI Leach	
880-25188-6	SW-11 0-4'	Soluble	Solid	DI Leach	
MB 880-47615/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47615/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-25188-1
Project/Site: Gravitas SDG: 22-0105-03

HPLC/IC (Continued)

Leach Batch: 47615 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-47615/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 47619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-1	C-9 1'	Soluble	Solid	DI Leach	
880-25188-2	SW-9 0-1'	Soluble	Solid	DI Leach	
MB 880-47619/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47619/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47619/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 47673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-3	C-10 2'	Soluble	Solid	300.0	47615
880-25188-4	SW-10 0-2'	Soluble	Solid	300.0	47615
880-25188-5	C-11 4'	Soluble	Solid	300.0	47615
880-25188-6	SW-11 0-4'	Soluble	Solid	300.0	47615
MB 880-47615/1-A	Method Blank	Soluble	Solid	300.0	47615
LCS 880-47615/2-A	Lab Control Sample	Soluble	Solid	300.0	47615
LCSD 880-47615/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47615

Analysis Batch: 47720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25188-1	C-9 1'	Soluble	Solid	300.0	47619
880-25188-2	SW-9 0-1'	Soluble	Solid	300.0	47619
MB 880-47619/1-A	Method Blank	Soluble	Solid	300.0	47619
LCS 880-47619/2-A	Lab Control Sample	Soluble	Solid	300.0	47619
LCSD 880-47619/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47619

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

Client Sample ID: C-9 1'

Date Collected: 02/23/23 13:10
Date Received: 02/27/23 09:41

Lab Sample ID: 880-25188-1
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			5.05 g	5 mL	47354	03/07/23 14:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48027	03/08/23 01:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48118	03/08/23 14:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47543	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 13:48	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	47619	03/02/23 09:36	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	47720	03/03/23 13:38	CH	EET MID

Client Sample ID: SW-9 0-1'

Date Collected: 02/23/23 13:40
Date Received: 02/27/23 09:41

Lab Sample ID: 880-25188-2
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	47354	03/07/23 14:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48027	03/08/23 01:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48118	03/08/23 14:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47543	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 14:10	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	47619	03/02/23 09:36	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	47720	03/03/23 13:44	CH	EET MID

Client Sample ID: C-10 2'

Date Collected: 02/23/23 14:45
Date Received: 02/27/23 09:41

Lab Sample ID: 880-25188-3
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	47354	03/07/23 14:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48027	03/08/23 01:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48118	03/08/23 14:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47543	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 14:31	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	47615	03/02/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47673	03/02/23 21:12	CH	EET MID

Client Sample ID: SW-10 0-2'

Date Collected: 02/22/23 15:00
Date Received: 02/27/23 09:41

Lab Sample ID: 880-25188-4
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			5.03 g	5 mL	47929	03/06/23 12:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47994	03/07/23 22:16	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			48118	03/08/23 12:33	AJ	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

Client Sample ID: SW-10 0-2'

Lab Sample ID: 880-25188-4
Matrix: Solid
Date Collected: 02/22/23 15:00
Date Received: 02/27/23 09:41

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			47543	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 14:53	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	47615	03/02/23 09:25	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	47673	03/02/23 20:57	CH	EET MID

Client Sample ID: C-11 4'

Lab Sample ID: 880-25188-5
Matrix: Solid
Date Collected: 02/24/23 11:30
Date Received: 02/27/23 09:41

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	47354	03/07/23 14:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48027	03/08/23 02:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48118	03/08/23 14:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47543	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 15:15	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47615	03/02/23 09:25	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	47673	03/02/23 21:02	CH	EET MID

Client Sample ID: SW-11 0-4'

Lab Sample ID: 880-25188-6
Matrix: Solid
Date Collected: 02/24/23 11:45
Date Received: 02/27/23 09:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.934 g	5 mL	48014	03/07/23 10:17	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48085	03/09/23 01:59	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			48118	03/09/23 14:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47543	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 15:59	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	47615	03/02/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47673	03/02/23 21:07	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-25188-1
Project/Site: Gravitas SDG: 22-0105-03

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-25188-1
Project/Site: Gravitas SDG: 22-0105-03

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-25188-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-25188-1	C-9 1'	Solid	02/23/23 13:10	02/27/23 09:41
880-25188-2	SW-9 0-1'	Solid	02/23/23 13:40	02/27/23 09:41
880-25188-3	C-10 2'	Solid	02/23/23 14:45	02/27/23 09:41
880-25188-4	SW-10 0-2'	Solid	02/22/23 15:00	02/27/23 09:41
880-25188-5	C-11 4'	Solid	02/24/23 11:30	02/27/23 09:41
880-25188-6	SW-11 0-4'	Solid	02/24/23 11:45	02/27/23 09:41

Page 281 of 472

25180

No. 2847

CHAIN-OF-CUSTODY

3/9/2023

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

Data Reported to

DATE _____ PAGE 1 OF 1

PO# _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME GRAVITAS

LAI PROJECT # 22-0105-03 COLLECTOR S. BATES

TRRP report? ☐ Yes ☒ No

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

TIME ZONE
Time zone/State: MST / NM

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐	TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐	HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	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 ☐	CYANIDE ☐	HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDES ☒	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
C-9 1'		2/23/23	1 10pm	S	1				X		X		X		X	X	X																									X			
SW-9 0-1		2/23/23	1:40	S	1				X		X		X		X	X	X																									X			
C-10 2'		2/23/23	2:45	S	1				X		X		X		X	X	X																									X			
SW-10 0-2'		2/23/23	3:00	S	1				X		X		X		X	X	X																									X			
C-11 4'		2/24/23	11:30	S	1				X		X		X		X	X	X																									X			
SW-11 0-4'		2/24/23	11 45	S	1				X		X		X		X	X	X																									X			

TOTAL 6

RELINQUISHED BY (Signature) Jason Hamrick DATE/TIME 2-27-23 RECEIVED BY (Signature)

RELINQUISHED BY (Signature) DATE/TIME 941 RECEIVED BY (Signature)

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

LABORATORY Eurofins

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

LABORATORY USE ONLY:
RECEIVING TEMP 0.9 THERM# IR-8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☑ HAND DELIVERED

880-25188 Chain of Custody

Page 25 of 26

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-25188-1
SDG Number: 22-0105-03

Login Number: 25188
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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 3/14/2023 2:38:02 PM

JOB DESCRIPTION

Gravitas SWD
SDG NUMBER 22-0105-03

JOB NUMBER

880-25349-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 5/31/2024 3:12:55 PM

my EOL

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Holly Taylor

Generated
3/14/2023 2:38:02 PM

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Laboratory Job ID: 880-25349-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
Surrogate Summary 8
QC Sample Results 9
QC Association Summary 12
Lab Chronicle 14
Certification Summary 15
Method Summary 16
Sample Summary 17
Chain of Custody 18
Receipt Checklists 19

Eurofins Midland
3/14/2023

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-25349-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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: Gravitas SWD

Job ID: 880-25349-1
SDG: 22-0105-03

Job ID: 880-25349-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-25349-1

Receipt
The samples were received on 3/2/2023 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.3°C

Receipt Exceptions
The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar

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

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

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-25349-1
SDG: 22-0105-03

Client Sample ID: BF-1

Date Collected: 03/01/23 11:25
Date Received: 03/02/23 09:30

Lab Sample ID: 880-25349-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/10/23 12:35	03/14/23 13:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/10/23 12:35	03/14/23 13:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/10/23 12:35	03/14/23 13:42	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		03/10/23 12:35	03/14/23 13:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/10/23 12:35	03/14/23 13:42	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/10/23 12:35	03/14/23 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/10/23 12:35*	*03/14/23 13:42*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/10/23 12:35*	*03/14/23 13:42*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/14/23 15:30	1

Method: SW846 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			03/06/23 12:05	1

Method: SW846 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		03/03/23 09:08	03/03/23 11:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/03/23 09:08	03/03/23 11:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/03/23 09:08	03/03/23 11:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*92*		*70 - 130*	*03/03/23 09:08*	*03/03/23 11:23*	*1*
o-Terphenyl (Surr)	*87*		*70 - 130*	*03/03/23 09:08*	*03/03/23 11:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**588**		25.0		mg/Kg			03/07/23 01:17	5

Client Sample ID: BF-2

Date Collected: 03/01/23 11:30
Date Received: 03/02/23 09:30

Lab Sample ID: 880-25349-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/10/23 12:35	03/14/23 14:02	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/10/23 12:35	03/14/23 14:02	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/10/23 12:35	03/14/23 14:02	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		03/10/23 12:35	03/14/23 14:02	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/10/23 12:35	03/14/23 14:02	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/10/23 12:35	03/14/23 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*03/10/23 12:35*	*03/14/23 14:02*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*03/10/23 12:35*	*03/14/23 14:02*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-25349-1
SDG: 22-0105-03

Client Sample ID: BF-2

Date Collected: 03/01/23 11:30
Date Received: 03/02/23 09:30

Lab Sample ID: 880-25349-2

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/14/23 15:30	1

Method: SW846 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			03/06/23 12:05	1

Method: SW846 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		03/03/23 09:08	03/03/23 12:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/03/23 09:08	03/03/23 12:30	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/03/23 09:08	03/03/23 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*91*		*70 - 130*	*03/03/23 09:08*	*03/03/23 12:30*	*1*
o-Terphenyl (Surr)	*80*		*70 - 130*	*03/03/23 09:08*	*03/03/23 12:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**74.5**		5.00		mg/Kg			03/07/23 01:22	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-25349-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-25349-1	BF-1	103	105										
880-25349-2	BF-2	72	72										
LCS 880-48320/1-A	Lab Control Sample	97	97										
LCSD 880-48320/2-A	Lab Control Sample Dup	94	105										
MB 880-48320/5-A	Method Blank	83	90										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-25349-1	BF-1	92	87										
880-25349-1 MS	BF-1	93	84										
880-25349-1 MSD	BF-1	102	88										
880-25349-2	BF-2	91	80										
LCS 880-47692/2-A	Lab Control Sample	94	100										
LCSD 880-47692/3-A	Lab Control Sample Dup	113	99										
MB 880-47692/1-A	Method Blank	110	112										

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-25349-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48320/5-A
Matrix: Solid
Analysis Batch: 48570

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48320

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/10/23 12:35	03/14/23 11:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/10/23 12:35	03/14/23 11:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/10/23 12:35	03/14/23 11:43	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/10/23 12:35	03/14/23 11:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/10/23 12:35	03/14/23 11:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/10/23 12:35	03/14/23 11:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*03/10/23 12:35*	*03/14/23 11:43*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/10/23 12:35*	*03/14/23 11:43*	*1*

Lab Sample ID: LCS 880-48320/1-A
Matrix: Solid
Analysis Batch: 48570

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48320

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09096		mg/Kg		91	70 - 130		
Toluene			0.100	0.08633		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.08686		mg/Kg		87	70 - 130		
m,p-Xylenes			0.200	0.1794		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.09083		mg/Kg		91	70 - 130		

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

Lab Sample ID: LCSD 880-48320/2-A
Matrix: Solid
Analysis Batch: 48570

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48320

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09452		mg/Kg		95	70 - 130	4	35
Toluene			0.100	0.08623		mg/Kg		86	70 - 130	0	35
Ethylbenzene			0.100	0.08454		mg/Kg		85	70 - 130	3	35
m,p-Xylenes			0.200	0.1705		mg/Kg		85	70 - 130	5	35
o-Xylene			0.100	0.08598		mg/Kg		86	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-25349-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-47692/1-A
Matrix: Solid
Analysis Batch: 47685

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47692

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		03/03/23 08:08	03/03/23 08:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/03/23 08:08	03/03/23 08:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/03/23 08:08	03/03/23 08:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*110*		*70 - 130*	*03/03/23 08:08*	*03/03/23 08:35*	*1*
o-Terphenyl (Surr)	*112*		*70 - 130*	*03/03/23 08:08*	*03/03/23 08:35*	*1*

Lab Sample ID: LCS 880-47692/2-A
Matrix: Solid
Analysis Batch: 47685

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47692

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	946.6		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)			999	1029		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*94*		*70 - 130*
o-Terphenyl (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-47692/3-A
Matrix: Solid
Analysis Batch: 47685

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47692

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	977.0		mg/Kg		98	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			999	1017		mg/Kg		102	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*113*		*70 - 130*
o-Terphenyl (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-25349-1 MS
Matrix: Solid
Analysis Batch: 47685

Client Sample ID: BF-1
Prep Type: Total/NA
Prep Batch: 47692

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	888.3		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	999	857.5		mg/Kg		84	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-25349-1
SDG: 22-0105-03

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

Lab Sample ID: 880-25349-1 MS
Matrix: Solid
Analysis Batch: 47685

Client Sample ID: BF-1
Prep Type: Total/NA
Prep Batch: 47692

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	93		70 - 130
o-Terphenyl (Surr)	84		70 - 130

Lab Sample ID: 880-25349-1 MSD
Matrix: Solid
Analysis Batch: 47685

Client Sample ID: BF-1
Prep Type: Total/NA
Prep Batch: 47692

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1022		mg/Kg		102	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	897.5		mg/Kg		88	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	102		70 - 130
o-Terphenyl (Surr)	88		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-47780/1-A
Matrix: Solid
Analysis Batch: 47997

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			03/06/23 22:56	1

Lab Sample ID: LCS 880-47780/2-A
Matrix: Solid
Analysis Batch: 47997

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	268.3		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-47780/3-A
Matrix: Solid
Analysis Batch: 47997

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	269.0		mg/Kg		108	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-25349-1
Project/Site: Gravitas SWD SDG: 22-0105-03

GC VOA

Prep Batch: 48320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25349-1	BF-1	Total/NA	Solid	5035	
880-25349-2	BF-2	Total/NA	Solid	5035	
MB 880-48320/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-48320/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-48320/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 48570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25349-1	BF-1	Total/NA	Solid	8021B	48320
880-25349-2	BF-2	Total/NA	Solid	8021B	48320
MB 880-48320/5-A	Method Blank	Total/NA	Solid	8021B	48320
LCS 880-48320/1-A	Lab Control Sample	Total/NA	Solid	8021B	48320
LCSD 880-48320/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	48320

Analysis Batch: 48624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25349-1	BF-1	Total/NA	Solid	Total BTEX	
880-25349-2	BF-2	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 47685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25349-1	BF-1	Total/NA	Solid	8015B NM	47692
880-25349-2	BF-2	Total/NA	Solid	8015B NM	47692
MB 880-47692/1-A	Method Blank	Total/NA	Solid	8015B NM	47692
LCS 880-47692/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47692
LCSD 880-47692/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47692
880-25349-1 MS	BF-1	Total/NA	Solid	8015B NM	47692
880-25349-1 MSD	BF-1	Total/NA	Solid	8015B NM	47692

Prep Batch: 47692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25349-1	BF-1	Total/NA	Solid	8015NM Prep	
880-25349-2	BF-2	Total/NA	Solid	8015NM Prep	
MB 880-47692/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47692/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47692/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-25349-1 MS	BF-1	Total/NA	Solid	8015NM Prep	
880-25349-1 MSD	BF-1	Total/NA	Solid	8015NM Prep	

Analysis Batch: 47926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25349-1	BF-1	Total/NA	Solid	8015 NM	
880-25349-2	BF-2	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 47780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25349-1	BF-1	Soluble	Solid	DI Leach	
880-25349-2	BF-2	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-25349-1
Project/Site: Gravitas SWD SDG: 22-0105-03

HPLC/IC (Continued)

Leach Batch: 47780 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-47780/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47780/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47780/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 47997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25349-1	BF-1	Soluble	Solid	300.0	47780
880-25349-2	BF-2	Soluble	Solid	300.0	47780
MB 880-47780/1-A	Method Blank	Soluble	Solid	300.0	47780
LCS 880-47780/2-A	Lab Control Sample	Soluble	Solid	300.0	47780
LCSD 880-47780/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47780

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-25349-1
SDG: 22-0105-03

Client Sample ID: BF-1

Date Collected: 03/01/23 11:25
Date Received: 03/02/23 09:30

Lab Sample ID: 880-25349-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	48320	03/10/23 12:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48570	03/14/23 13:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48624	03/14/23 15:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			47926	03/06/23 12:05	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47692	03/03/23 09:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47685	03/03/23 11:23	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	47780	03/03/23 16:07	CH	EET MID
Soluble	Analysis	300.0		5			47997	03/07/23 01:17	CH	EET MID

Client Sample ID: BF-2

Date Collected: 03/01/23 11:30
Date Received: 03/02/23 09:30

Lab Sample ID: 880-25349-2

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			4.97 g	5 mL	48320	03/10/23 12:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48570	03/14/23 14:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48624	03/14/23 15:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			47926	03/06/23 12:05	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47692	03/03/23 09:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47685	03/03/23 12:30	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47780	03/03/23 16:07	CH	EET MID
Soluble	Analysis	300.0		1			47997	03/07/23 01:22	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-25349-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-25349-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-25349-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-25349-1	BF-1	Solid	03/01/23 11:25	03/02/23 09:30
880-25349-2	BF-2	Solid	03/01/23 11:30	03/02/23 09:30

25349

No. 2880

CHAIN-OF-CUSTODY

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

DATE: 3/2/2023 PAGE 1 OF 1

PO#: _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME Gravitas SWD

LAI PROJECT #: 22-0105-03 COLLECTOR: RN

Data Reported to

TRRP report? ☐ Yes ☑ No

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

TIME ZONE
Time zone/State: MST/NM

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☑ 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
BF-1		3/1/23	1125	S	1				X		X		X	X	X														X	202
BF-2		1	1130	1	1				1		1		1	1	1														1	
TOTAL																														

880-25349 Chain of Custody

RELINQUISHED BY (Signature)	DATE/TIME 3/2/23 0930	RECEIVED BY (Signature) 3/2/23 0950
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 5.6/5.3 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Page 300 of 472
Received by OCD: 5/8/2024 2:07:46 PM
3/14/2023
Page 18 of 19
Released to Imaging: 5/31/2024 3:12:53 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-25349-1
SDG Number: 22-0105-03

Login Number: 25349
List Number: 1
Creator: Teel, Brianna

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 9/7/2023 11:08:25 AM

JOB DESCRIPTION

Gravitas
SDG NUMBER 22-0105-03

JOB NUMBER

880-32816-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 5/31/2024 3:12:55 PM

my EOL

Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Holly Taylor

Generated
9/7/2023 11:08:25 AM

Authorized for release by
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Client: Larson & Associates, Inc.
Project/Site: Gravitas

Laboratory Job ID: 880-32816-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 22
Lab Chronicle 26
Certification Summary 30
Method Summary 31
Sample Summary 32
Chain of Custody 33
Receipt Checklists 34

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-32816-1
Project/Site: Gravitas SDG: 22-0105-03

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD 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. Job ID: 880-32816-1
Project/Site: Gravitas SDG: 22-0105-03

Job ID: 880-32816-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-32816-1

Receipt
The samples were received on 9/5/2023 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -2.9°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SW-2 0-1' (880-32816-1), SW-9A 0-1' (880-32816-2), SW-12 0-4.5' (880-32816-3), C-3 4.5' (880-32816-4), C-4 4.5' (880-32816-5), SW-7 0-1' (880-32816-6), C-12 1' (880-32816-7), SW-1 0-1' (880-32816-8), C-13 1' (880-32816-9), C-14 1' (880-32816-10), C-15 4.5' (880-32816-11) and C-16 1' (880-32816-12).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SW-9A 0-1' (880-32816-2), SW-12 0-4.5' (880-32816-3) and (890-5190-A-4-B MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: C-12 1' (880-32816-7), SW-1 0-1' (880-32816-8) and C-13 1' (880-32816-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-61771 and analytical batch 880-61784 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW-2 0-1' (880-32816-1), SW-9A 0-1' (880-32816-2), SW-12 0-4.5' (880-32816-3), (890-5185-A-9-C), (890-5185-A-9-D MS) and (890-5185-A-9-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-61771/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-61932 and analytical batch 880-61885 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: C-4 4.5' (880-32816-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-13 1' (880-32816-9), C-14 1' (880-32816-10), C-15 4.5' (880-32816-11) and C-16 1' (880-32816-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-32833-A-15-B MDLV) and (880-32833-A-16-B MDLV). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-61932 and analytical batch 880-61885 was outside control limits. Sample non-homogeneity is suspected.

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

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Job ID: 880-32816-1 (Continued)

Laboratory: Eurofins Midland (Continued)

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: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Client Sample ID: SW-2 0-1'

Lab Sample ID: 880-32816-1
Matrix: Solid
Date Collected: 08/29/23 10:00
Date Received: 09/05/23 10:00

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 13:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 13:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 13:50	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		09/05/23 10:29	09/05/23 13:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 13:50	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/05/23 10:29	09/05/23 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*09/05/23 10:29*	*09/05/23 13:50*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*09/05/23 10:29*	*09/05/23 13:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/05/23 17:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			09/06/23 09:18	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		09/05/23 11:10	09/05/23 19:11	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		09/05/23 11:10	09/05/23 19:11	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		09/05/23 11:10	09/05/23 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*153*	*S1+*	*70 - 130*	*09/05/23 11:10*	*09/05/23 19:11*	*1*
o-Terphenyl (Surr)	*135*	*S1+*	*70 - 130*	*09/05/23 11:10*	*09/05/23 19:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**875**		49.8		mg/Kg			09/05/23 23:48	10

Client Sample ID: SW-9A 0-1'

Lab Sample ID: 880-32816-2
Matrix: Solid
Date Collected: 08/29/23 11:00
Date Received: 09/05/23 10:00

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/05/23 10:29	09/05/23 14:11	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/05/23 10:29	09/05/23 14:11	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/05/23 10:29	09/05/23 14:11	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		09/05/23 10:29	09/05/23 14:11	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/05/23 10:29	09/05/23 14:11	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		09/05/23 10:29	09/05/23 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*09/05/23 10:29*	*09/05/23 14:11*	*1*
1,4-Difluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*09/05/23 10:29*	*09/05/23 14:11*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-32816-1
Project/Site: Gravitas SDG: 22-0105-03

Client Sample ID: SW-9A 0-1' Lab Sample ID: 880-32816-2

Date Collected: 08/29/23 11:00 **Matrix: Solid**
Date Received: 09/05/23 10:00

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			09/05/23 17:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			09/06/23 09:18	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		09/05/23 11:10	09/05/23 19:33	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		09/05/23 11:10	09/05/23 19:33	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		09/05/23 11:10	09/05/23 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*148*	*S1+*	*70 - 130*	*09/05/23 11:10*	*09/05/23 19:33*	*1*
o-Terphenyl (Surr)	*131*	*S1+*	*70 - 130*	*09/05/23 11:10*	*09/05/23 19:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1440**		49.6		mg/Kg			09/06/23 00:07	10

Client Sample ID: SW-12 0-4.5' Lab Sample ID: 880-32816-3

Date Collected: 08/29/23 10:40 **Matrix: Solid**
Date Received: 09/05/23 10:00

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/05/23 10:29	09/05/23 14:32	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/05/23 10:29	09/05/23 14:32	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/05/23 10:29	09/05/23 14:32	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		09/05/23 10:29	09/05/23 14:32	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/05/23 10:29	09/05/23 14:32	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/05/23 10:29	09/05/23 14:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*09/05/23 10:29*	*09/05/23 14:32*	*1*
1,4-Difluorobenzene (Surr)	*64*	*S1-*	*70 - 130*	*09/05/23 10:29*	*09/05/23 14:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			09/05/23 17:40	1

Method: SW846 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			09/06/23 09:18	1

Method: SW846 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		09/05/23 11:10	09/05/23 19:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/05/23 11:10	09/05/23 19:56	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-32816-1
Project/Site: Gravitas SDG: 22-0105-03

Client Sample ID: SW-12 0-4.5' Lab Sample ID: 880-32816-3

Date Collected: 08/29/23 10:40 **Matrix: Solid**
Date Received: 09/05/23 10:00

Method: SW846 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		09/05/23 11:10	09/05/23 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*143*	*S1+*	*70 - 130*	*09/05/23 11:10*	*09/05/23 19:56*	*1*
o-Terphenyl (Surr)	*125*		*70 - 130*	*09/05/23 11:10*	*09/05/23 19:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**129**		5.02		mg/Kg			09/06/23 00:14	1

Client Sample ID: C-3 4.5' Lab Sample ID: 880-32816-4

Date Collected: 08/29/23 10:20 **Matrix: Solid**
Date Received: 09/05/23 10:00

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/05/23 10:29	09/05/23 14:52	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/05/23 10:29	09/05/23 14:52	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/05/23 10:29	09/05/23 14:52	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		09/05/23 10:29	09/05/23 14:52	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/05/23 10:29	09/05/23 14:52	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/05/23 10:29	09/05/23 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*09/05/23 10:29*	*09/05/23 14:52*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*09/05/23 10:29*	*09/05/23 14:52*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			09/05/23 17:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			09/07/23 10:24	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U F2	50.3		mg/Kg		09/06/23 11:07	09/06/23 12:17	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		09/06/23 11:07	09/06/23 12:17	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		09/06/23 11:07	09/06/23 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*107*		*70 - 130*	*09/06/23 11:07*	*09/06/23 12:17*	*1*
o-Terphenyl (Surr)	*111*		*70 - 130*	*09/06/23 11:07*	*09/06/23 12:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**227**		5.01		mg/Kg			09/06/23 00:20	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Client Sample ID: C-4 4.5'

Lab Sample ID: 880-32816-5
Matrix: Solid
Date Collected: 08/29/23 10:30
Date Received: 09/05/23 10:00

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 15:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 15:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 15:13	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		09/05/23 10:29	09/05/23 15:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 15:13	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/05/23 10:29	09/05/23 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*09/05/23 10:29*	*09/05/23 15:13*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*09/05/23 10:29*	*09/05/23 15:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			09/05/23 17:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			09/07/23 10:24	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		09/06/23 11:07	09/06/23 13:22	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		09/06/23 11:07	09/06/23 13:22	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		09/06/23 11:07	09/06/23 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*123*		*70 - 130*	*09/06/23 11:07*	*09/06/23 13:22*	*1*
o-Terphenyl (Surr)	*133*	*S1+*	*70 - 130*	*09/06/23 11:07*	*09/06/23 13:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**153**		4.99		mg/Kg			09/06/23 00:26	1

Client Sample ID: SW-7 0-1'

Lab Sample ID: 880-32816-6
Matrix: Solid
Date Collected: 08/30/23 08:00
Date Received: 09/05/23 10:00

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 15:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 15:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 15:33	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		09/05/23 10:29	09/05/23 15:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 15:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/05/23 10:29	09/05/23 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*09/05/23 10:29*	*09/05/23 15:33*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*09/05/23 10:29*	*09/05/23 15:33*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-32816-1
Project/Site: Gravitas SDG: 22-0105-03

Client Sample ID: SW-7 0-1'
Lab Sample ID: 880-32816-6
Date Collected: 08/30/23 08:00 **Matrix: Solid**
Date Received: 09/05/23 10:00

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/05/23 17:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			09/07/23 10:24	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		09/06/23 11:07	09/06/23 13:46	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		09/06/23 11:07	09/06/23 13:46	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		09/06/23 11:07	09/06/23 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*120*		*70 - 130*	*09/06/23 11:07*	*09/06/23 13:46*	*1*
o-Terphenyl (Surr)	*130*		*70 - 130*	*09/06/23 11:07*	*09/06/23 13:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**408**		25.2		mg/Kg			09/06/23 00:46	5

Client Sample ID: C-12 1'
Lab Sample ID: 880-32816-7
Date Collected: 08/30/23 08:15 **Matrix: Solid**
Date Received: 09/05/23 10:00

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 16:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 16:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 16:57	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		09/05/23 10:29	09/05/23 16:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 16:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/05/23 10:29	09/05/23 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*09/05/23 10:29*	*09/05/23 16:57*	*1*
1,4-Difluorobenzene (Surr)	*60*	*S1-*	*70 - 130*	*09/05/23 10:29*	*09/05/23 16:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/06/23 14:32	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			09/07/23 10:24	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		09/06/23 11:07	09/06/23 14:08	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		09/06/23 11:07	09/06/23 14:08	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-32816-1
Project/Site: Gravitas SDG: 22-0105-03

Client Sample ID: C-12 1'
Lab Sample ID: 880-32816-7
Date Collected: 08/30/23 08:15 **Matrix: Solid**
Date Received: 09/05/23 10:00

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		09/06/23 11:07	09/06/23 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*107*		*70 - 130*	*09/06/23 11:07*	*09/06/23 14:08*	*1*
o-Terphenyl (Surr)	*116*		*70 - 130*	*09/06/23 11:07*	*09/06/23 14:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**272**		25.2		mg/Kg			09/06/23 00:52	5

Client Sample ID: SW-1 0-1'
Lab Sample ID: 880-32816-8
Date Collected: 08/30/23 08:25 **Matrix: Solid**
Date Received: 09/05/23 10:00

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/05/23 10:29	09/05/23 17:18	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/05/23 10:29	09/05/23 17:18	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/05/23 10:29	09/05/23 17:18	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		09/05/23 10:29	09/05/23 17:18	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/05/23 10:29	09/05/23 17:18	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		09/05/23 10:29	09/05/23 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*09/05/23 10:29*	*09/05/23 17:18*	*1*
1,4-Difluorobenzene (Surr)	*63*	*S1-*	*70 - 130*	*09/05/23 10:29*	*09/05/23 17:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			09/06/23 14:32	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			09/07/23 10:24	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		09/06/23 11:07	09/06/23 14:31	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		09/06/23 11:07	09/06/23 14:31	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		09/06/23 11:07	09/06/23 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*120*		*70 - 130*	*09/06/23 11:07*	*09/06/23 14:31*	*1*
o-Terphenyl (Surr)	*130*		*70 - 130*	*09/06/23 11:07*	*09/06/23 14:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**353**		24.9		mg/Kg			09/06/23 00:58	5

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Client Sample ID: C-13 1'

Date Collected: 08/30/23 08:35
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-9
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 17:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 17:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 17:38	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		09/05/23 10:29	09/05/23 17:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 17:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/05/23 10:29	09/05/23 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*09/05/23 10:29*	*09/05/23 17:38*	*1*
1,4-Difluorobenzene (Surr)	*61*	*S1-*	*70 - 130*	*09/05/23 10:29*	*09/05/23 17:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			09/06/23 14:32	1

Method: SW846 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			09/07/23 10:24	1

Method: SW846 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		09/06/23 11:07	09/06/23 14:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/06/23 11:07	09/06/23 14:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/06/23 11:07	09/06/23 14:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*132*	*S1+*	*70 - 130*	*09/06/23 11:07*	*09/06/23 14:53*	*1*
o-Terphenyl (Surr)	*143*	*S1+*	*70 - 130*	*09/06/23 11:07*	*09/06/23 14:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**464**		50.4		mg/Kg			09/06/23 01:05	10

Client Sample ID: C-14 1'

Date Collected: 08/30/23 09:00
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-10
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 17:59	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 17:59	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 17:59	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		09/05/23 10:29	09/05/23 17:59	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/05/23 10:29	09/05/23 17:59	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/05/23 10:29	09/05/23 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*09/05/23 10:29*	*09/05/23 17:59*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*09/05/23 10:29*	*09/05/23 17:59*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Client Sample ID: C-14 1'

Date Collected: 08/30/23 09:00
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-10
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/06/23 14:32	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			09/07/23 10:24	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		09/06/23 11:07	09/06/23 15:15	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		09/06/23 11:07	09/06/23 15:15	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		09/06/23 11:07	09/06/23 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*145*	*S1+*	*70 - 130*	*09/06/23 11:07*	*09/06/23 15:15*	*1*
o-Terphenyl (Surr)	*158*	*S1+*	*70 - 130*	*09/06/23 11:07*	*09/06/23 15:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**58.0**		5.05		mg/Kg			09/06/23 01:11	1

Client Sample ID: C-15 4.5'

Date Collected: 08/30/23 09:15
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-11
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/05/23 10:29	09/05/23 18:19	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/05/23 10:29	09/05/23 18:19	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/05/23 10:29	09/05/23 18:19	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		09/05/23 10:29	09/05/23 18:19	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/05/23 10:29	09/05/23 18:19	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		09/05/23 10:29	09/05/23 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*09/05/23 10:29*	*09/05/23 18:19*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*09/05/23 10:29*	*09/05/23 18:19*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			09/06/23 14:32	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			09/07/23 10:24	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		09/06/23 11:07	09/06/23 15:37	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		09/06/23 11:07	09/06/23 15:37	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-32816-1
Project/Site: Gravitas SDG: 22-0105-03

Client Sample ID: C-15 4.5'
Lab Sample ID: 880-32816-11
Date Collected: 08/30/23 09:15 **Matrix: Solid**
Date Received: 09/05/23 10:00

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		09/06/23 11:07	09/06/23 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*139*	*S1+*	*70 - 130*	*09/06/23 11:07*	*09/06/23 15:37*	*1*
o-Terphenyl (Surr)	*152*	*S1+*	*70 - 130*	*09/06/23 11:07*	*09/06/23 15:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76.2**		5.00		mg/Kg			09/06/23 01:17	1

Client Sample ID: C-16 1'
Lab Sample ID: 880-32816-12
Date Collected: 08/30/23 09:30 **Matrix: Solid**
Date Received: 09/05/23 10:00

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 18:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 18:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 18:40	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		09/05/23 10:29	09/05/23 18:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 18:40	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/05/23 10:29	09/05/23 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*09/05/23 10:29*	*09/05/23 18:40*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*09/05/23 10:29*	*09/05/23 18:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			09/06/23 14:32	1

Method: SW846 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			09/07/23 10:24	1

Method: SW846 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		09/06/23 11:07	09/06/23 15:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/06/23 11:07	09/06/23 15:59	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/06/23 11:07	09/06/23 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*143*	*S1+*	*70 - 130*	*09/06/23 11:07*	*09/06/23 15:59*	*1*
o-Terphenyl (Surr)	*159*	*S1+*	*70 - 130*	*09/06/23 11:07*	*09/06/23 15:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**959**		50.2		mg/Kg			09/06/23 01:37	10

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-32816-1	SW-2 0-1'	105	79
880-32816-2	SW-9A 0-1'	102	62 S1-
880-32816-3	SW-12 0-4.5'	100	64 S1-
880-32816-4	C-3 4.5'	99	72
880-32816-5	C-4 4.5'	100	74
880-32816-6	SW-7 0-1'	105	75
880-32816-7	C-12 1'	97	60 S1-
880-32816-8	SW-1 0-1'	102	63 S1-
880-32816-9	C-13 1'	103	61 S1-
880-32816-10	C-14 1'	95	74
880-32816-11	C-15 4.5'	88	77
880-32816-12	C-16 1'	116	86
LCS 880-61799/1-A	Lab Control Sample	121	119
LCSD 880-61799/2-A	Lab Control Sample Dup	123	117
MB 880-61799/5-A	Method Blank	74	99

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-32816-1	SW-2 0-1'	153 S1+	135 S1+
880-32816-2	SW-9A 0-1'	148 S1+	131 S1+
880-32816-3	SW-12 0-4.5'	143 S1+	125
880-32816-4	C-3 4.5'	107	111
880-32816-4 MS	C-3 4.5'	129	125
880-32816-4 MSD	C-3 4.5'	119	113
880-32816-5	C-4 4.5'	123	133 S1+
880-32816-6	SW-7 0-1'	120	130
880-32816-7	C-12 1'	107	116
880-32816-8	SW-1 0-1'	120	130
880-32816-9	C-13 1'	132 S1+	143 S1+
880-32816-10	C-14 1'	145 S1+	158 S1+
880-32816-11	C-15 4.5'	139 S1+	152 S1+
880-32816-12	C-16 1'	143 S1+	159 S1+
LCS 880-61771/2-A	Lab Control Sample	124	127
LCS 880-61932/2-A	Lab Control Sample	85	92
LCSD 880-61771/3-A	Lab Control Sample Dup	135 S1+	119
LCSD 880-61932/3-A	Lab Control Sample Dup	101	112
MB 880-61771/1-A	Method Blank	164 S1+	151 S1+
MB 880-61932/1-A	Method Blank	146 S1+	165 S1+

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-61799/5-A
Matrix: Solid
Analysis Batch: 61791

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 61799

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 12:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 12:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 12:06	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		09/05/23 10:29	09/05/23 12:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/05/23 10:29	09/05/23 12:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/05/23 10:29	09/05/23 12:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*09/05/23 10:29*	*09/05/23 12:06*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*09/05/23 10:29*	*09/05/23 12:06*	*1*

Lab Sample ID: LCS 880-61799/1-A
Matrix: Solid
Analysis Batch: 61791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 61799

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1028		mg/Kg		103	70 - 130		
Toluene			0.100	0.1080		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1097		mg/Kg		110	70 - 130		
m,p-Xylenes			0.200	0.2472		mg/Kg		124	70 - 130		
o-Xylene			0.100	0.1205		mg/Kg		121	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*

Lab Sample ID: LCSD 880-61799/2-A
Matrix: Solid
Analysis Batch: 61791

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 61799

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1042		mg/Kg		104	70 - 130	1	35
Toluene			0.100	0.1144		mg/Kg		114	70 - 130	6	35
Ethylbenzene			0.100	0.1143		mg/Kg		114	70 - 130	4	35
m,p-Xylenes			0.200	0.2559		mg/Kg		128	70 - 130	3	35
o-Xylene			0.100	0.1254		mg/Kg		125	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-61771/1-A
Matrix: Solid
Analysis Batch: 61784

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 61771

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		09/01/23 15:18	09/05/23 08:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/01/23 15:18	09/05/23 08:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/01/23 15:18	09/05/23 08:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*164*	*S1+*	*70 - 130*	*09/01/23 15:18*	*09/05/23 08:20*	*1*
o-Terphenyl (Surr)	*151*	*S1+*	*70 - 130*	*09/01/23 15:18*	*09/05/23 08:20*	*1*

Lab Sample ID: LCS 880-61771/2-A
Matrix: Solid
Analysis Batch: 61784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 61771

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1128		mg/Kg		113	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1049		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*124*		*70 - 130*
o-Terphenyl (Surr)	*127*		*70 - 130*

Lab Sample ID: LCSD 880-61771/3-A
Matrix: Solid
Analysis Batch: 61784

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 61771

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1176		mg/Kg		118	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1013		mg/Kg		101	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*135*	*S1+*	*70 - 130*
o-Terphenyl (Surr)	*119*		*70 - 130*

Lab Sample ID: MB 880-61932/1-A
Matrix: Solid
Analysis Batch: 61885

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 61932

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		09/06/23 08:00	09/06/23 08:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/06/23 08:00	09/06/23 08:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/06/23 08:00	09/06/23 08:46	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-61932/1-A
Matrix: Solid
Analysis Batch: 61885

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 61932

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	146	S1+	70 - 130	09/06/23 08:00	09/06/23 08:46	1
o-Terphenyl (Surr)	165	S1+	70 - 130	09/06/23 08:00	09/06/23 08:46	1

Lab Sample ID: LCS 880-61932/2-A
Matrix: Solid
Analysis Batch: 61885

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 61932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	991.3		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	1000	816.5		mg/Kg		82	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	85		70 - 130
o-Terphenyl (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-61932/3-A
Matrix: Solid
Analysis Batch: 61885

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 61932

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	852.9		mg/Kg		85	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	1000	986.1		mg/Kg		99	70 - 130	19	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	101		70 - 130
o-Terphenyl (Surr)	112		70 - 130

Lab Sample ID: 880-32816-4 MS
Matrix: Solid
Analysis Batch: 61885

Client Sample ID: C-3 4.5'
Prep Type: Total/NA
Prep Batch: 61932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.3	U F2	998	1201		mg/Kg		119	70 - 130
Diesel Range Organics (Over C10-C28)	<50.3	U	998	1220		mg/Kg		118	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	129		70 - 130
o-Terphenyl (Surr)	125		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

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

Lab Sample ID: 880-32816-4 MSD
Matrix: Solid
Analysis Batch: 61885

Client Sample ID: C-3 4.5'
Prep Type: Total/NA
Prep Batch: 61932

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.3	U F2	998	962.8	F2	mg/Kg		95	70 - 130	22	20
Diesel Range Organics (Over C10-C28)	<50.3	U	998	1116		mg/Kg		108	70 - 130	9	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*119*		*70 - 130*
o-Terphenyl (Surr)	*113*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-61820/1-A
Matrix: Solid
Analysis Batch: 61852

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			09/05/23 23:29	1

Lab Sample ID: LCS 880-61820/2-A
Matrix: Solid
Analysis Batch: 61852

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	253.8		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-61820/3-A
Matrix: Solid
Analysis Batch: 61852

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	253.8		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-32816-1 MS
Matrix: Solid
Analysis Batch: 61852

Client Sample ID: SW-2 0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	875		2490	3424		mg/Kg		102	90 - 110		

Lab Sample ID: 880-32816-1 MSD
Matrix: Solid
Analysis Batch: 61852

Client Sample ID: SW-2 0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	875		2490	3426		mg/Kg		102	90 - 110	0	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-32816-11 MS
Matrix: Solid
Analysis Batch: 61852

Client Sample ID: C-15 4.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	76.2		250	333.3		mg/Kg		103	90 - 110		

Lab Sample ID: 880-32816-11 MSD
Matrix: Solid
Analysis Batch: 61852

Client Sample ID: C-15 4.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	76.2		250	333.1		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

GC VOA

Analysis Batch: 61791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-1	SW-2 0-1'	Total/NA	Solid	8021B	61799
880-32816-2	SW-9A 0-1'	Total/NA	Solid	8021B	61799
880-32816-3	SW-12 0-4.5'	Total/NA	Solid	8021B	61799
880-32816-4	C-3 4.5'	Total/NA	Solid	8021B	61799
880-32816-5	C-4 4.5'	Total/NA	Solid	8021B	61799
880-32816-6	SW-7 0-1'	Total/NA	Solid	8021B	61799
880-32816-7	C-12 1'	Total/NA	Solid	8021B	61799
880-32816-8	SW-1 0-1'	Total/NA	Solid	8021B	61799
880-32816-9	C-13 1'	Total/NA	Solid	8021B	61799
880-32816-10	C-14 1'	Total/NA	Solid	8021B	61799
880-32816-11	C-15 4.5'	Total/NA	Solid	8021B	61799
880-32816-12	C-16 1'	Total/NA	Solid	8021B	61799
MB 880-61799/5-A	Method Blank	Total/NA	Solid	8021B	61799
LCS 880-61799/1-A	Lab Control Sample	Total/NA	Solid	8021B	61799
LCSD 880-61799/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	61799

Prep Batch: 61799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-1	SW-2 0-1'	Total/NA	Solid	5035	
880-32816-2	SW-9A 0-1'	Total/NA	Solid	5035	
880-32816-3	SW-12 0-4.5'	Total/NA	Solid	5035	
880-32816-4	C-3 4.5'	Total/NA	Solid	5035	
880-32816-5	C-4 4.5'	Total/NA	Solid	5035	
880-32816-6	SW-7 0-1'	Total/NA	Solid	5035	
880-32816-7	C-12 1'	Total/NA	Solid	5035	
880-32816-8	SW-1 0-1'	Total/NA	Solid	5035	
880-32816-9	C-13 1'	Total/NA	Solid	5035	
880-32816-10	C-14 1'	Total/NA	Solid	5035	
880-32816-11	C-15 4.5'	Total/NA	Solid	5035	
880-32816-12	C-16 1'	Total/NA	Solid	5035	
MB 880-61799/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-61799/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-61799/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 61881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-1	SW-2 0-1'	Total/NA	Solid	Total BTEX	
880-32816-2	SW-9A 0-1'	Total/NA	Solid	Total BTEX	
880-32816-3	SW-12 0-4.5'	Total/NA	Solid	Total BTEX	
880-32816-4	C-3 4.5'	Total/NA	Solid	Total BTEX	
880-32816-5	C-4 4.5'	Total/NA	Solid	Total BTEX	
880-32816-6	SW-7 0-1'	Total/NA	Solid	Total BTEX	
880-32816-7	C-12 1'	Total/NA	Solid	Total BTEX	
880-32816-8	SW-1 0-1'	Total/NA	Solid	Total BTEX	
880-32816-9	C-13 1'	Total/NA	Solid	Total BTEX	
880-32816-10	C-14 1'	Total/NA	Solid	Total BTEX	
880-32816-11	C-15 4.5'	Total/NA	Solid	Total BTEX	
880-32816-12	C-16 1'	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

GC Semi VOA

Prep Batch: 61771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-1	SW-2 0-1'	Total/NA	Solid	8015NM Prep	
880-32816-2	SW-9A 0-1'	Total/NA	Solid	8015NM Prep	
880-32816-3	SW-12 0-4.5'	Total/NA	Solid	8015NM Prep	
MB 880-61771/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-61771/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-61771/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 61784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-1	SW-2 0-1'	Total/NA	Solid	8015B NM	61771
880-32816-2	SW-9A 0-1'	Total/NA	Solid	8015B NM	61771
880-32816-3	SW-12 0-4.5'	Total/NA	Solid	8015B NM	61771
MB 880-61771/1-A	Method Blank	Total/NA	Solid	8015B NM	61771
LCS 880-61771/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	61771
LCSD 880-61771/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	61771

Analysis Batch: 61885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-4	C-3 4.5'	Total/NA	Solid	8015B NM	61932
880-32816-5	C-4 4.5'	Total/NA	Solid	8015B NM	61932
880-32816-6	SW-7 0-1'	Total/NA	Solid	8015B NM	61932
880-32816-7	C-12 1'	Total/NA	Solid	8015B NM	61932
880-32816-8	SW-1 0-1'	Total/NA	Solid	8015B NM	61932
880-32816-9	C-13 1'	Total/NA	Solid	8015B NM	61932
880-32816-10	C-14 1'	Total/NA	Solid	8015B NM	61932
880-32816-11	C-15 4.5'	Total/NA	Solid	8015B NM	61932
880-32816-12	C-16 1'	Total/NA	Solid	8015B NM	61932
MB 880-61932/1-A	Method Blank	Total/NA	Solid	8015B NM	61932
LCS 880-61932/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	61932
LCSD 880-61932/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	61932
880-32816-4 MS	C-3 4.5'	Total/NA	Solid	8015B NM	61932
880-32816-4 MSD	C-3 4.5'	Total/NA	Solid	8015B NM	61932

Analysis Batch: 61910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-1	SW-2 0-1'	Total/NA	Solid	8015 NM	
880-32816-2	SW-9A 0-1'	Total/NA	Solid	8015 NM	
880-32816-3	SW-12 0-4.5'	Total/NA	Solid	8015 NM	
880-32816-4	C-3 4.5'	Total/NA	Solid	8015 NM	
880-32816-5	C-4 4.5'	Total/NA	Solid	8015 NM	
880-32816-6	SW-7 0-1'	Total/NA	Solid	8015 NM	
880-32816-7	C-12 1'	Total/NA	Solid	8015 NM	
880-32816-8	SW-1 0-1'	Total/NA	Solid	8015 NM	
880-32816-9	C-13 1'	Total/NA	Solid	8015 NM	
880-32816-10	C-14 1'	Total/NA	Solid	8015 NM	
880-32816-11	C-15 4.5'	Total/NA	Solid	8015 NM	
880-32816-12	C-16 1'	Total/NA	Solid	8015 NM	

Prep Batch: 61932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-4	C-3 4.5'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Prep Batch: 61932 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-5	C-4 4.5'	Total/NA	Solid	8015NM Prep	
880-32816-6	SW-7 0-1'	Total/NA	Solid	8015NM Prep	
880-32816-7	C-12 1'	Total/NA	Solid	8015NM Prep	
880-32816-8	SW-1 0-1'	Total/NA	Solid	8015NM Prep	
880-32816-9	C-13 1'	Total/NA	Solid	8015NM Prep	
880-32816-10	C-14 1'	Total/NA	Solid	8015NM Prep	
880-32816-11	C-15 4.5'	Total/NA	Solid	8015NM Prep	
880-32816-12	C-16 1'	Total/NA	Solid	8015NM Prep	
MB 880-61932/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-61932/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-61932/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-32816-4 MS	C-3 4.5'	Total/NA	Solid	8015NM Prep	
880-32816-4 MSD	C-3 4.5'	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 61820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-1	SW-2 0-1'	Soluble	Solid	DI Leach	
880-32816-2	SW-9A 0-1'	Soluble	Solid	DI Leach	
880-32816-3	SW-12 0-4.5'	Soluble	Solid	DI Leach	
880-32816-4	C-3 4.5'	Soluble	Solid	DI Leach	
880-32816-5	C-4 4.5'	Soluble	Solid	DI Leach	
880-32816-6	SW-7 0-1'	Soluble	Solid	DI Leach	
880-32816-7	C-12 1'	Soluble	Solid	DI Leach	
880-32816-8	SW-1 0-1'	Soluble	Solid	DI Leach	
880-32816-9	C-13 1'	Soluble	Solid	DI Leach	
880-32816-10	C-14 1'	Soluble	Solid	DI Leach	
880-32816-11	C-15 4.5'	Soluble	Solid	DI Leach	
880-32816-12	C-16 1'	Soluble	Solid	DI Leach	
MB 880-61820/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-61820/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-61820/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-32816-1 MS	SW-2 0-1'	Soluble	Solid	DI Leach	
880-32816-1 MSD	SW-2 0-1'	Soluble	Solid	DI Leach	
880-32816-11 MS	C-15 4.5'	Soluble	Solid	DI Leach	
880-32816-11 MSD	C-15 4.5'	Soluble	Solid	DI Leach	

Analysis Batch: 61852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-1	SW-2 0-1'	Soluble	Solid	300.0	61820
880-32816-2	SW-9A 0-1'	Soluble	Solid	300.0	61820
880-32816-3	SW-12 0-4.5'	Soluble	Solid	300.0	61820
880-32816-4	C-3 4.5'	Soluble	Solid	300.0	61820
880-32816-5	C-4 4.5'	Soluble	Solid	300.0	61820
880-32816-6	SW-7 0-1'	Soluble	Solid	300.0	61820
880-32816-7	C-12 1'	Soluble	Solid	300.0	61820
880-32816-8	SW-1 0-1'	Soluble	Solid	300.0	61820
880-32816-9	C-13 1'	Soluble	Solid	300.0	61820
880-32816-10	C-14 1'	Soluble	Solid	300.0	61820
880-32816-11	C-15 4.5'	Soluble	Solid	300.0	61820

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-32816-1
Project/Site: Gravitas SDG: 22-0105-03

HPLC/IC (Continued)

Analysis Batch: 61852 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32816-12	C-16 1'	Soluble	Solid	300.0	61820
MB 880-61820/1-A	Method Blank	Soluble	Solid	300.0	61820
LCS 880-61820/2-A	Lab Control Sample	Soluble	Solid	300.0	61820
LCSD 880-61820/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	61820
880-32816-1 MS	SW-2 0-1'	Soluble	Solid	300.0	61820
880-32816-1 MSD	SW-2 0-1'	Soluble	Solid	300.0	61820
880-32816-11 MS	C-15 4.5'	Soluble	Solid	300.0	61820
880-32816-11 MSD	C-15 4.5'	Soluble	Solid	300.0	61820

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Client Sample ID: SW-2 0-1'

Lab Sample ID: 880-32816-1
Matrix: Solid
Date Collected: 08/29/23 10:00
Date Received: 09/05/23 10:00

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	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 13:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/05/23 17:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/06/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	61771	09/05/23 11:10	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61784	09/05/23 19:11	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		10			61852	09/05/23 23:48	CH	EET MID

Client Sample ID: SW-9A 0-1'

Lab Sample ID: 880-32816-2
Matrix: Solid
Date Collected: 08/29/23 11:00
Date Received: 09/05/23 10:00

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	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 14:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/05/23 17:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/06/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	61771	09/05/23 11:10	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61784	09/05/23 19:33	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		10			61852	09/06/23 00:07	CH	EET MID

Client Sample ID: SW-12 0-4.5'

Lab Sample ID: 880-32816-3
Matrix: Solid
Date Collected: 08/29/23 10:40
Date Received: 09/05/23 10:00

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	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 14:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/05/23 17:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/06/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	61771	09/05/23 11:10	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61784	09/05/23 19:56	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		1			61852	09/06/23 00:14	CH	EET MID

Client Sample ID: C-3 4.5'

Lab Sample ID: 880-32816-4
Matrix: Solid
Date Collected: 08/29/23 10:20
Date Received: 09/05/23 10:00

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	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 14:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/05/23 17:40	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Client Sample ID: C-3 4.5'

Date Collected: 08/29/23 10:20
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-4
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			61910	09/07/23 10:24	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	61932	09/06/23 11:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61885	09/06/23 12:17	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		1			61852	09/06/23 00:20	CH	EET MID

Client Sample ID: C-4 4.5'

Date Collected: 08/29/23 10:30
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-5
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			4.99 g	5 mL	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 15:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/05/23 17:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/07/23 10:24	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	61932	09/06/23 11:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61885	09/06/23 13:22	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		1			61852	09/06/23 00:26	CH	EET MID

Client Sample ID: SW-7 0-1'

Date Collected: 08/30/23 08:00
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-6
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	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 15:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/05/23 17:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/07/23 10:24	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	61932	09/06/23 11:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61885	09/06/23 13:46	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		5			61852	09/06/23 00:46	CH	EET MID

Client Sample ID: C-12 1'

Date Collected: 08/30/23 08:15
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-7
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			5.02 g	5 mL	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 16:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/06/23 14:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/07/23 10:24	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	61932	09/06/23 11:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61885	09/06/23 14:08	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Client Sample ID: C-12 1'

Date Collected: 08/30/23 08:15
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-7
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			4.97 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		5			61852	09/06/23 00:52	CH	EET MID

Client Sample ID: SW-1 0-1'

Date Collected: 08/30/23 08:25
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-8
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			5.05 g	5 mL	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 17:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/06/23 14:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/07/23 10:24	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	61932	09/06/23 11:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61885	09/06/23 14:31	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		5			61852	09/06/23 00:58	CH	EET MID

Client Sample ID: C-13 1'

Date Collected: 08/30/23 08:35
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-9
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	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 17:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/06/23 14:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/07/23 10:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	61932	09/06/23 11:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61885	09/06/23 14:53	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		10			61852	09/06/23 01:05	CH	EET MID

Client Sample ID: C-14 1'

Date Collected: 08/30/23 09:00
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-10
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	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 17:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/06/23 14:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/07/23 10:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	61932	09/06/23 11:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61885	09/06/23 15:15	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		1			61852	09/06/23 01:11	CH	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Client Sample ID: C-15 4.5'

Date Collected: 08/30/23 09:15
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 18:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/06/23 14:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/07/23 10:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	61932	09/06/23 11:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61885	09/06/23 15:37	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		1			61852	09/06/23 01:17	CH	EET MID

Client Sample ID: C-16 1'

Date Collected: 08/30/23 09:30
Date Received: 09/05/23 10:00

Lab Sample ID: 880-32816-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	61799	09/05/23 10:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	61791	09/05/23 18:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			61881	09/06/23 14:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			61910	09/07/23 10:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	61932	09/06/23 11:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	61885	09/06/23 15:59	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	61820	09/05/23 13:13	SMC	EET MID
Soluble	Analysis	300.0		10			61852	09/06/23 01:37	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-32816-1
Project/Site: Gravitas SDG: 22-0105-03

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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-32816-1
Project/Site: Gravitas SDG: 22-0105-03

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-32816-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-32816-1	SW-2 0-1'	Solid	08/29/23 10:00	09/05/23 10:00
880-32816-2	SW-9A 0-1'	Solid	08/29/23 11:00	09/05/23 10:00
880-32816-3	SW-12 0-4.5'	Solid	08/29/23 10:40	09/05/23 10:00
880-32816-4	C-3 4.5'	Solid	08/29/23 10:20	09/05/23 10:00
880-32816-5	C-4 4.5'	Solid	08/29/23 10:30	09/05/23 10:00
880-32816-6	SW-7 0-1'	Solid	08/30/23 08:00	09/05/23 10:00
880-32816-7	C-12 1'	Solid	08/30/23 08:15	09/05/23 10:00
880-32816-8	SW-1 0-1'	Solid	08/30/23 08:25	09/05/23 10:00
880-32816-9	C-13 1'	Solid	08/30/23 08:35	09/05/23 10:00
880-32816-10	C-14 1'	Solid	08/30/23 09:00	09/05/23 10:00
880-32816-11	C-15 4.5'	Solid	08/30/23 09:15	09/05/23 10:00
880-32816-12	C-16 1'	Solid	08/30/23 09:30	09/05/23 10:00

Page 334 of 472

32816

No. 2765

CHAIN-OF-CUSTODY

9/7/2023

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

DATE 9/11/2023 PAGE 1 OF 1

PO# _____ LAB WORK ORDER#. _____

PROJECT LOCATION OR NAME. GRAVITAS 1

LAI PROJECT # 22-0105-03 COLLECTOR ETHAN BATES

Data Reported to ROBERT NELSON, MPLC CARLSON

TRRP report? ☐ Yes ☒ No

TIME ZONE Time zone/State

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

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

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | 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 ☒	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
SW-2 0-1'		8/29/23	~~10:00~~ 10:00	S	1				X		X		X	X	X													X		202
SW-9A 0-1'		8/29/23	11:00	S	1																									
SW 12 0-4.5'		8/29/23	10:40	S	1																									
C-3 4.5'		8/29/23	10:20	S	1																									
C-4 4.5'		8/29/23	10:30	S	1																									
SW-7 0-1'		8/30/23	8:00	S	1																									
C-12 1'		8/30/23	8:15	S	1																									
SW-1 0-1'		8/30/23	8:25	S	1																									
C-13 1'		8/30/23	8:35	S	1																									
C-14 1'		8/30/23	9:00	S	1																									
C-15 4.5'		8/30/23	9:15	S	1																									
C-16 1'		8/30/23	9:30	S	1																									

TOTAL 12

880-32816 Chain of Custody

RELINQUISHED BY (Signature) DATE/TIME 9/5 10:00 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 -26 | -29 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☒ HAND DELIVERED

Page 33 of 34

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-32816-1
SDG Number: 22-0105-03

Login Number: 32816
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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 9/27/2023 12:21:57 PM

JOB DESCRIPTION

Gravitas
SDG NUMBER 2766

JOB NUMBER

880-33524-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

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Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Holly Taylor

Generated
9/27/2023 12:21:57 PM

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Laboratory Job ID: 880-33524-1
SDG: 2766

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
Surrogate Summary 8
QC Sample Results 9
QC Association Summary 12
Lab Chronicle 14
Certification Summary 15
Method Summary 16
Sample Summary 17
Chain of Custody 18
Receipt Checklists 19

Eurofins Midland
9/27/2023

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

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
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. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

Job ID: 880-33524-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-33524-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/22/2023 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-11 5' (880-33524-1) and SW-10 0-2' (880-33524-2).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-63286 and analytical batch 880-63282 was outside the upper control limits.

Method 8021B: The method blank for preparation batch 880-63020 and analytical batch 880-63282 contained o-Xylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; 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
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-63095 and analytical batch 880-63030 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-63030/31), (CCV 880-63030/47), (CCV 880-63030/58) and (LCS 880-63095/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-11 5' (880-33524-1), SW-10 0-2' (880-33524-2), (890-5314-A-1-F MS) and (890-5314-A-1-G MSD). 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.

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

Released to Imaging: 5/31/2024 3:12:53 PM

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

Client Sample ID: C-11 5' Lab Sample ID: 880-33524-1

Date Collected: 09/19/23 10:50 **Matrix: Solid**
Date Received: 09/22/23 09:45

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/26/23 11:32	09/27/23 04:57	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/26/23 11:32	09/27/23 04:57	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/26/23 11:32	09/27/23 04:57	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		09/26/23 11:32	09/27/23 04:57	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/26/23 11:32	09/27/23 04:57	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/26/23 11:32	09/27/23 04:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*09/26/23 11:32*	*09/27/23 04:57*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*09/26/23 11:32*	*09/27/23 04:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			09/27/23 04:57	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			09/23/23 03:56	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		09/22/23 14:56	09/23/23 03:56	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		09/22/23 14:56	09/23/23 03:56	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		09/22/23 14:56	09/23/23 03:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*134*	*S1+*	*70 - 130*	*09/22/23 14:56*	*09/23/23 03:56*	*1*
o-Terphenyl (Surr)	*125*		*70 - 130*	*09/22/23 14:56*	*09/23/23 03:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6910**		49.5		mg/Kg			09/26/23 22:31	10

Client Sample ID: SW-10 0-2' Lab Sample ID: 880-33524-2

Date Collected: 09/19/23 12:30 **Matrix: Solid**
Date Received: 09/22/23 09:45

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:32	09/27/23 05:17	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:32	09/27/23 05:17	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:32	09/27/23 05:17	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		09/26/23 11:32	09/27/23 05:17	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:32	09/27/23 05:17	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/26/23 11:32	09/27/23 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*09/26/23 11:32*	*09/27/23 05:17*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*09/26/23 11:32*	*09/27/23 05:17*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

Client Sample ID: SW-10 0-2' **Lab Sample ID: 880-33524-2**
Date Collected: 09/19/23 12:30 **Matrix: Solid**
Date Received: 09/22/23 09:45

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/27/23 05:17	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			09/23/23 04:17	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		09/22/23 14:56	09/23/23 04:17	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		09/22/23 14:56	09/23/23 04:17	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		09/22/23 14:56	09/23/23 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*129*		*70 - 130*	*09/22/23 14:56*	*09/23/23 04:17*	*1*
o-Terphenyl (Surr)	*119*		*70 - 130*	*09/22/23 14:56*	*09/23/23 04:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3000**		24.8		mg/Kg			09/26/23 22:37	5

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-33524-1	C-11 5'	92	115
880-33524-2	SW-10 0-2'	106	114
LCS 880-63020/1-A	Lab Control Sample	108	98
LCSD 880-63020/2-A	Lab Control Sample Dup	107	97
MB 880-63020/5-A	Method Blank	117	126
MB 880-63286/5-A	Method Blank	124	137 S1+

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-33524-1	C-11 5'	134 S1+	125
880-33524-2	SW-10 0-2'	129	119
LCS 880-63095/2-A	Lab Control Sample	112	150 S1+
LCSD 880-63095/3-A	Lab Control Sample Dup	104	110
MB 880-63095/1-A	Method Blank	201 S1+	198 S1+

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-33524-1
SDG: 2766

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-63020/5-A
Matrix: Solid
Analysis Batch: 63282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63020

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/21/23 17:02	09/26/23 22:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/21/23 17:02	09/26/23 22:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/21/23 17:02	09/26/23 22:52	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		09/21/23 17:02	09/26/23 22:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/21/23 17:02	09/26/23 22:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/21/23 17:02	09/26/23 22:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*09/21/23 17:02*	*09/26/23 22:52*	*1*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*	*09/21/23 17:02*	*09/26/23 22:52*	*1*

Lab Sample ID: LCS 880-63020/1-A
Matrix: Solid
Analysis Batch: 63282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 63020

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07564		mg/Kg		76	70 - 130		
Toluene			0.100	0.07658		mg/Kg		77	70 - 130		
Ethylbenzene			0.100	0.07573		mg/Kg		76	70 - 130		
m,p-Xylenes			0.200	0.1737		mg/Kg		87	70 - 130		
o-Xylene			0.100	0.08460		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-63020/2-A
Matrix: Solid
Analysis Batch: 63282

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 63020

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08419		mg/Kg		84	70 - 130	11	35
Toluene			0.100	0.08114		mg/Kg		81	70 - 130	6	35
Ethylbenzene			0.100	0.08199		mg/Kg		82	70 - 130	8	35
m,p-Xylenes			0.200	0.1847		mg/Kg		92	70 - 130	6	35
o-Xylene			0.100	0.08975		mg/Kg		90	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 880-63286/5-A
Matrix: Solid
Analysis Batch: 63282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63286

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/26/23 09:26	09/26/23 11:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/26/23 09:26	09/26/23 11:15	1

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

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

Lab Sample ID: MB 880-63286/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 63282 **Prep Batch: 63286**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/26/23 09:26	09/26/23 11:15	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		09/26/23 09:26	09/26/23 11:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/26/23 09:26	09/26/23 11:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/26/23 09:26	09/26/23 11:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*09/26/23 09:26*	*09/26/23 11:15*	*1*
1,4-Difluorobenzene (Surr)	*137*	*S1+*	*70 - 130*	*09/26/23 09:26*	*09/26/23 11:15*	*1*

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

Lab Sample ID: MB 880-63095/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 63030 **Prep Batch: 63095**

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		09/22/23 14:56	09/22/23 19:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/22/23 14:56	09/22/23 19:27	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/22/23 14:56	09/22/23 19:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*201*	*S1+*	*70 - 130*	*09/22/23 14:56*	*09/22/23 19:27*	*1*
o-Terphenyl (Surr)	*198*	*S1+*	*70 - 130*	*09/22/23 14:56*	*09/22/23 19:27*	*1*

Lab Sample ID: LCS 880-63095/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 63030 **Prep Batch: 63095**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	935.8		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	982.0		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*112*		*70 - 130*
o-Terphenyl (Surr)	*150*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-63095/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 63030 **Prep Batch: 63095**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	934.6		mg/Kg		93	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	985.5		mg/Kg		99	70 - 130	0	20

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

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

Lab Sample ID: LCSD 880-63095/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 63030 **Prep Batch: 63095**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	104		70 - 130
o-Terphenyl (Surr)	110		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-63117/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 63346

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/26/23 21:04	1

Lab Sample ID: LCS 880-63117/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 63346

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	242.8		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-63117/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 63346

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	243.3		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

GC VOA

Prep Batch: 63020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-33524-1	C-11 5'	Total/NA	Solid	5035	
880-33524-2	SW-10 0-2'	Total/NA	Solid	5035	
MB 880-63020/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-63020/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-63020/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 63282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-33524-1	C-11 5'	Total/NA	Solid	8021B	63020
880-33524-2	SW-10 0-2'	Total/NA	Solid	8021B	63020
MB 880-63020/5-A	Method Blank	Total/NA	Solid	8021B	63020
MB 880-63286/5-A	Method Blank	Total/NA	Solid	8021B	63286
LCS 880-63020/1-A	Lab Control Sample	Total/NA	Solid	8021B	63020
LCSD 880-63020/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	63020

Prep Batch: 63286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-63286/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 63443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-33524-1	C-11 5'	Total/NA	Solid	Total BTEX	
880-33524-2	SW-10 0-2'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 63030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-33524-1	C-11 5'	Total/NA	Solid	8015B NM	63095
880-33524-2	SW-10 0-2'	Total/NA	Solid	8015B NM	63095
MB 880-63095/1-A	Method Blank	Total/NA	Solid	8015B NM	63095
LCS 880-63095/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	63095
LCSD 880-63095/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	63095

Prep Batch: 63095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-33524-1	C-11 5'	Total/NA	Solid	8015NM Prep	
880-33524-2	SW-10 0-2'	Total/NA	Solid	8015NM Prep	
MB 880-63095/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-63095/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-63095/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 63227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-33524-1	C-11 5'	Total/NA	Solid	8015 NM	
880-33524-2	SW-10 0-2'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 63117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-33524-1	C-11 5'	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

HPLC/IC (Continued)

Leach Batch: 63117 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-33524-2	SW-10 0-2'	Soluble	Solid	DI Leach	
MB 880-63117/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-63117/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-63117/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 63346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-33524-1	C-11 5'	Soluble	Solid	300.0	63117
880-33524-2	SW-10 0-2'	Soluble	Solid	300.0	63117
MB 880-63117/1-A	Method Blank	Soluble	Solid	300.0	63117
LCS 880-63117/2-A	Lab Control Sample	Soluble	Solid	300.0	63117
LCSD 880-63117/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	63117

Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

Client Sample ID: C-11 5' Lab Sample ID: 880-33524-1

Date Collected: 09/19/23 10:50 **Matrix: Solid**
Date Received: 09/22/23 09:45

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	63020	09/26/23 11:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63282	09/27/23 04:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63443	09/27/23 04:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			63227	09/23/23 03:56	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	63095	09/22/23 14:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63030	09/23/23 03:56	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	63117	09/22/23 17:40	AG	EET MID
Soluble	Analysis	300.0		10			63346	09/26/23 22:31	CH	EET MID

Client Sample ID: SW-10 0-2' Lab Sample ID: 880-33524-2

Date Collected: 09/19/23 12:30 **Matrix: Solid**
Date Received: 09/22/23 09:45

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	63020	09/26/23 11:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63282	09/27/23 05:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63443	09/27/23 05:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			63227	09/23/23 04:17	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	63095	09/22/23 14:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63030	09/23/23 04:17	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	63117	09/22/23 17:40	AG	EET MID
Soluble	Analysis	300.0		5			63346	09/26/23 22:37	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-33524-1
Project/Site: Gravitas SDG: 2766

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-33524-1
SDG: 2766

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-33524-1	C-11 5'	Solid	09/19/23 10:50	09/22/23 09:45
880-33524-2	SW-10 0-2'	Solid	09/19/23 12:30	09/22/23 09:45

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Page 353 of 472

524 No. 2766

CHAIN-OF-CUSTODY

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

DATE: 9/22/2023 PAGE 1 OF 1

PO# _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME GRAVITAS

LAI PROJECT # 22-0105-03 COLLECTOR STAN BATES

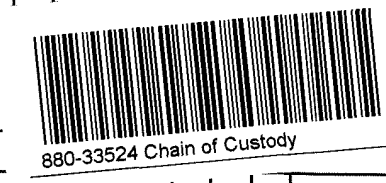
Data Reported to ROBERT NELSON / MIKE LARSON

TRRP report? ☐ Yes ☒ No

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

TIME ZONE
Time zone/State
MWT

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 ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
C-11 - 5'		9/19/23	10:50	S	1				X		X	X	X	X															X		202
SW-10 0-2'		9/19/23	12:30	S	1				X		X	X	X	X															X		
TOTAL																															



RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
	9/22/23 0945	
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 1-3/1.0 THERM# IR8 -36
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Page 18 of 19
9/27/2023
Received by OCD: 5/8/2024 2:07:46 PM
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Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-33524-1
SDG Number: 2766

Login Number: 33524
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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

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JOB DESCRIPTION

Gravitas SWD
SDG NUMBER 22-0105-03

JOB NUMBER

880-34572-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

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my EOL

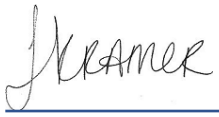
Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Revision 1

Authorized for release by
Jessica Kramer, Project Manager
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Designee for
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Laboratory Job ID: 880-34572-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 7
Surrogate Summary 13
QC Sample Results 14
QC Association Summary 19
Lab Chronicle 23
Certification Summary 26
Method Summary 27
Sample Summary 28
Chain of Custody 29
Receipt Checklists 30

Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Job ID: 880-34572-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-34572-1

REVISION

The report being provided is a revision of the original report sent on 10/24/2023. The report (revision 1) is being revised due to to report the result for the reanalysis of Cl for sample 8 per Robert Nelson (email).

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/18/2023 8:24 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -2.8°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-11 7' (880-34572-1), SW-10, 0-2' (880-34572-2), SW-3, 0-4.1' (880-34572-3), SW-4, 0-4.1' (880-34572-4), SW-5, 0-4.5' (880-34572-5), SW-6, 0-4.5' (880-34572-6), SW-2, 0-1' (880-34572-7) and SW-9A, 0-1' (880-34572-8).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SW-2, 0-1' (880-34572-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-65044 and analytical batch 880-65026 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-64907 and analytical batch 880-64930 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-11 7' (880-34572-1), (890-5458-A-9-A), (890-5458-A-9-B MS) and (890-5458-A-9-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW-10, 0-2' (880-34572-2), SW-3, 0-4.1' (880-34572-3), SW-4, 0-4.1' (880-34572-4), SW-5, 0-4.5' (880-34572-5), SW-6, 0-4.5' (880-34572-6), SW-2, 0-1' (880-34572-7) and SW-9A, 0-1' (880-34572-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-64930/31), (CCV 880-64930/47) and (CCV 880-64930/58). Evidence of matrix interferences is not obvious.

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Job ID: 880-34572-1 (Continued)

Laboratory: Eurofins Midland (Continued)

Method 8015MOD_NM: The laboratory control sample duplicate (LCSD) for preparation batch 880-64907 and analytical batch 880-64930 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28). Since only an acceptable LCS is required per the method, the data has been qualified and reported.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-64930 recovered above the upper control limit for Diesel Range Organics (Over C10-C28). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-64930/58).

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: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Client Sample ID: C-11 7'

Date Collected: 10/16/23 10:00
Date Received: 10/18/23 08:24

Lab Sample ID: 880-34572-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/20/23 02:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/20/23 02:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/20/23 02:50	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		10/19/23 13:28	10/20/23 02:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/20/23 02:50	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/19/23 13:28	10/20/23 02:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*10/19/23 13:28*	*10/20/23 02:50*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*10/19/23 13:28*	*10/20/23 02:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/20/23 02:50	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			10/19/23 01:02	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		10/18/23 11:42	10/19/23 01:02	1
Diesel Range Organics (Over C10-C28)	<49.7	U *+	49.7		mg/Kg		10/18/23 11:42	10/19/23 01:02	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		10/18/23 11:42	10/19/23 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*150*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 01:02*	*1*
o-Terphenyl (Surr)	*127*		*70 - 130*	*10/18/23 11:42*	*10/19/23 01:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**77.3**		5.02		mg/Kg			10/23/23 17:52	1

Client Sample ID: SW-10, 0-2'

Date Collected: 10/16/23 10:10
Date Received: 10/18/23 08:24

Lab Sample ID: 880-34572-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		10/19/23 13:28	10/20/23 03:11	1
Toluene	<0.00198	U	0.00198		mg/Kg		10/19/23 13:28	10/20/23 03:11	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		10/19/23 13:28	10/20/23 03:11	1
m,p-Xylenes	<0.00397	U	0.00397		mg/Kg		10/19/23 13:28	10/20/23 03:11	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		10/19/23 13:28	10/20/23 03:11	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		10/19/23 13:28	10/20/23 03:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*10/19/23 13:28*	*10/20/23 03:11*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*10/19/23 13:28*	*10/20/23 03:11*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Client Sample ID: SW-10, 0-2'

Lab Sample ID: 880-34572-2
Matrix: Solid
Date Collected: 10/16/23 10:10
Date Received: 10/18/23 08:24

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			10/20/23 03:11	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			10/19/23 01:46	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		10/18/23 11:42	10/19/23 01:46	1
Diesel Range Organics (Over C10-C28)	<49.6	U *+	49.6		mg/Kg		10/18/23 11:42	10/19/23 01:46	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		10/18/23 11:42	10/19/23 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*150*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 01:46*	*1*
o-Terphenyl (Surr)	*125*		*70 - 130*	*10/18/23 11:42*	*10/19/23 01:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	138		4.99		mg/Kg			10/23/23 17:58	1

Client Sample ID: SW-3, 0-4.1'

Lab Sample ID: 880-34572-3
Matrix: Solid
Date Collected: 10/16/23 10:20
Date Received: 10/18/23 08:24

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		10/19/23 13:28	10/20/23 05:01	1
Toluene	<0.00202	U	0.00202		mg/Kg		10/19/23 13:28	10/20/23 05:01	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		10/19/23 13:28	10/20/23 05:01	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		10/19/23 13:28	10/20/23 05:01	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		10/19/23 13:28	10/20/23 05:01	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		10/19/23 13:28	10/20/23 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*10/19/23 13:28*	*10/20/23 05:01*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*10/19/23 13:28*	*10/20/23 05:01*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			10/20/23 05:01	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			10/19/23 02:07	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		10/18/23 11:42	10/19/23 02:07	1
Diesel Range Organics (Over C10-C28)	<50.3	U *+	50.3		mg/Kg		10/18/23 11:42	10/19/23 02:07	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Client Sample ID: SW-3, 0-4.1'

Lab Sample ID: 880-34572-3
Matrix: Solid
Date Collected: 10/16/23 10:20
Date Received: 10/18/23 08:24

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		10/18/23 11:42	10/19/23 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*161*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 02:07*	*1*
o-Terphenyl (Surr)	*135*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 02:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**672**		4.98		mg/Kg			10/23/23 18:04	1

Client Sample ID: SW-4, 0-4.1'

Lab Sample ID: 880-34572-4
Matrix: Solid
Date Collected: 10/16/23 10:30
Date Received: 10/18/23 08:24

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/20/23 05:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/20/23 05:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/20/23 05:21	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		10/19/23 13:28	10/20/23 05:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/20/23 05:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/19/23 13:28	10/20/23 05:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*10/19/23 13:28*	*10/20/23 05:21*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*10/19/23 13:28*	*10/20/23 05:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			10/20/23 05:21	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			10/19/23 02:28	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		10/18/23 11:42	10/19/23 02:28	1
Diesel Range Organics (Over C10-C28)	<50.5	U *+	50.5		mg/Kg		10/18/23 11:42	10/19/23 02:28	1
Oll Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		10/18/23 11:42	10/19/23 02:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*153*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 02:28*	*1*
o-Terphenyl (Surr)	*129*		*70 - 130*	*10/18/23 11:42*	*10/19/23 02:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**459**		5.00		mg/Kg			10/23/23 18:09	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Client Sample ID: SW-5, 0-4.5'

Lab Sample ID: 880-34572-5
Matrix: Solid
Date Collected: 10/16/23 10:40
Date Received: 10/18/23 08:24

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/19/23 13:28	10/20/23 05:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/19/23 13:28	10/20/23 05:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/19/23 13:28	10/20/23 05:42	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		10/19/23 13:28	10/20/23 05:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/19/23 13:28	10/20/23 05:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/19/23 13:28	10/20/23 05:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*10/19/23 13:28*	*10/20/23 05:42*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*10/19/23 13:28*	*10/20/23 05:42*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/20/23 05:42	1

Method: SW846 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			10/19/23 02:49	1

Method: SW846 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		10/18/23 11:42	10/19/23 02:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		10/18/23 11:42	10/19/23 02:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/18/23 11:42	10/19/23 02:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*163*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 02:49*	*1*
o-Terphenyl (Surr)	*136*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 02:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**679**		4.97		mg/Kg			10/23/23 18:15	1

Client Sample ID: SW-6, 0-4.5'

Lab Sample ID: 880-34572-6
Matrix: Solid
Date Collected: 10/16/23 10:50
Date Received: 10/18/23 08:24

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/19/23 13:06	10/20/23 05:50	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/19/23 13:06	10/20/23 05:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/19/23 13:06	10/20/23 05:50	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		10/19/23 13:06	10/20/23 05:50	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/19/23 13:06	10/20/23 05:50	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/19/23 13:06	10/20/23 05:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*10/19/23 13:06*	*10/20/23 05:50*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*10/19/23 13:06*	*10/20/23 05:50*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Client Sample ID: SW-6, 0-4.5'

Lab Sample ID: 880-34572-6
Matrix: Solid
Date Collected: 10/16/23 10:50
Date Received: 10/18/23 08:24

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/20/23 05:50	1

Method: SW846 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			10/19/23 03:10	1

Method: SW846 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		10/18/23 11:42	10/19/23 03:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9		mg/Kg		10/18/23 11:42	10/19/23 03:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/18/23 11:42	10/19/23 03:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*165*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 03:10*	*1*
o-Terphenyl (Surr)	*138*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 03:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		5.03		mg/Kg			10/23/23 18:21	1

Client Sample ID: SW-2, 0-1'

Lab Sample ID: 880-34572-7
Matrix: Solid
Date Collected: 10/17/23 08:00
Date Received: 10/18/23 08:24

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:06	10/20/23 06:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:06	10/20/23 06:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:06	10/20/23 06:11	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		10/19/23 13:06	10/20/23 06:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:06	10/20/23 06:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/19/23 13:06	10/20/23 06:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*10/19/23 13:06*	*10/20/23 06:11*	*1*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*10/19/23 13:06*	*10/20/23 06:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			10/20/23 06:11	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			10/19/23 03:31	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		10/18/23 11:42	10/19/23 03:31	1
Diesel Range Organics (Over C10-C28)	<49.6	U *+	49.6		mg/Kg		10/18/23 11:42	10/19/23 03:31	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Client Sample ID: SW-2, 0-1'

Lab Sample ID: 880-34572-7
Date Collected: 10/17/23 08:00
Matrix: Solid
Date Received: 10/18/23 08:24

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		10/18/23 11:42	10/19/23 03:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*151*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 03:31*	*1*
o-Terphenyl (Surr)	*127*		*70 - 130*	*10/18/23 11:42*	*10/19/23 03:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**126**		5.00		mg/Kg			10/23/23 18:26	1

Client Sample ID: SW-9A, 0-1'

Lab Sample ID: 880-34572-8
Date Collected: 10/17/23 09:00
Matrix: Solid
Date Received: 10/18/23 08:24

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/19/23 13:28	10/20/23 06:03	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/19/23 13:28	10/20/23 06:03	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/19/23 13:28	10/20/23 06:03	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		10/19/23 13:28	10/20/23 06:03	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		10/19/23 13:28	10/20/23 06:03	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/19/23 13:28	10/20/23 06:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*10/19/23 13:28*	*10/20/23 06:03*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*10/19/23 13:28*	*10/20/23 06:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/20/23 06:03	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			10/19/23 03:52	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		10/18/23 11:42	10/19/23 03:52	1
Diesel Range Organics (Over C10-C28)	<49.6	U *+	49.6		mg/Kg		10/18/23 11:42	10/19/23 03:52	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		10/18/23 11:42	10/19/23 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*151*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 03:52*	*1*
o-Terphenyl (Surr)	*134*	*S1+*	*70 - 130*	*10/18/23 11:42*	*10/19/23 03:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55.0**		5.01		mg/Kg			10/26/23 15:23	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

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)
880-34572-1	C-11 7'	113	103
880-34572-2	SW-10, 0-2'	111	102
880-34572-3	SW-3, 0-4.1'	91	96
880-34572-4	SW-4, 0-4.1'	100	98
880-34572-5	SW-5, 0-4.5'	103	105
880-34572-6	SW-6, 0-4.5'	104	77
880-34572-7	SW-2, 0-1'	98	68 S1-
880-34572-8	SW-9A, 0-1'	103	101
LCS 880-65043/1-A	Lab Control Sample	126	102
LCS 880-65044/1-A	Lab Control Sample	112	107
LCSD 880-65043/2-A	Lab Control Sample Dup	127	109
LCSD 880-65044/2-A	Lab Control Sample Dup	113	98
MB 880-64991/5-A	Method Blank	108	122
MB 880-64998/5-A	Method Blank	77	91
MB 880-65043/5-A	Method Blank	80	86
MB 880-65044/5-A	Method Blank	103	132 S1+

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)
880-34572-1	C-11 7'	150 S1+	127
880-34572-2	SW-10, 0-2'	150 S1+	125
880-34572-3	SW-3, 0-4.1'	161 S1+	135 S1+
880-34572-4	SW-4, 0-4.1'	153 S1+	129
880-34572-5	SW-5, 0-4.5'	163 S1+	136 S1+
880-34572-6	SW-6, 0-4.5'	165 S1+	138 S1+
880-34572-7	SW-2, 0-1'	151 S1+	127
880-34572-8	SW-9A, 0-1'	151 S1+	134 S1+
LCS 880-64907/2-A	Lab Control Sample	115	109
LCSD 880-64907/3-A	Lab Control Sample Dup	115	106
MB 880-64907/1-A	Method Blank	194 S1+	164 S1+

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-64991/5-A
Matrix: Solid
Analysis Batch: 65026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 64991

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/18/23 14:36	10/19/23 12:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/18/23 14:36	10/19/23 12:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/18/23 14:36	10/19/23 12:02	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		10/18/23 14:36	10/19/23 12:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/18/23 14:36	10/19/23 12:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/18/23 14:36	10/19/23 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*10/18/23 14:36*	*10/19/23 12:02*	*1*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*	*10/18/23 14:36*	*10/19/23 12:02*	*1*

Lab Sample ID: MB 880-64998/5-A
Matrix: Solid
Analysis Batch: 65025

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 64998

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/18/23 15:14	10/19/23 11:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/18/23 15:14	10/19/23 11:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/18/23 15:14	10/19/23 11:37	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		10/18/23 15:14	10/19/23 11:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/18/23 15:14	10/19/23 11:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/18/23 15:14	10/19/23 11:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*10/18/23 15:14*	*10/19/23 11:37*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*10/18/23 15:14*	*10/19/23 11:37*	*1*

Lab Sample ID: MB 880-65043/5-A
Matrix: Solid
Analysis Batch: 65025

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 65043

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:06	10/19/23 22:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:06	10/19/23 22:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:06	10/19/23 22:15	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		10/19/23 13:06	10/19/23 22:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:06	10/19/23 22:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/19/23 13:06	10/19/23 22:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*10/19/23 13:06*	*10/19/23 22:15*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*10/19/23 13:06*	*10/19/23 22:15*	*1*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-65043/1-A
Matrix: Solid
Analysis Batch: 65025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 65043

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09647		mg/Kg		96	70 - 130		
Toluene			0.100	0.09660		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.1011		mg/Kg		101	70 - 130		
m,p-Xylenes			0.200	0.2215		mg/Kg		111	70 - 130		
o-Xylene			0.100	0.1225		mg/Kg		123	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-65043/2-A
Matrix: Solid
Analysis Batch: 65025

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 65043

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1038		mg/Kg		104	70 - 130	7	35
Toluene			0.100	0.1051		mg/Kg		105	70 - 130	8	35
Ethylbenzene			0.100	0.1105		mg/Kg		110	70 - 130	9	35
m,p-Xylenes			0.200	0.2397		mg/Kg		120	70 - 130	8	35
o-Xylene			0.100	0.1260		mg/Kg		126	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: MB 880-65044/5-A
Matrix: Solid
Analysis Batch: 65026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 65044

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/19/23 23:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/19/23 23:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/19/23 23:38	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		10/19/23 13:28	10/19/23 23:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/19/23 13:28	10/19/23 23:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/19/23 13:28	10/19/23 23:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*10/19/23 13:28*	*10/19/23 23:38*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*10/19/23 13:28*	*10/19/23 23:38*	*1*

Lab Sample ID: LCS 880-65044/1-A
Matrix: Solid
Analysis Batch: 65026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 65044

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1076		mg/Kg		108	70 - 130		
Toluene			0.100	0.09843		mg/Kg		98	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-65044/1-A
Matrix: Solid
Analysis Batch: 65026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 65044

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.100	0.1055		mg/Kg		106	70 - 130
m,p-Xylenes	0.200	0.1945		mg/Kg		97	70 - 130
o-Xylene	0.100	0.08893		mg/Kg		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-65044/2-A
Matrix: Solid
Analysis Batch: 65026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 65044

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1072		mg/Kg		107	70 - 130	0	35
Toluene	0.100	0.09005		mg/Kg		90	70 - 130	9	35
Ethylbenzene	0.100	0.1070		mg/Kg		107	70 - 130	1	35
m,p-Xylenes	0.200	0.2119		mg/Kg		106	70 - 130	9	35
o-Xylene	0.100	0.1029		mg/Kg		103	70 - 130	15	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-64907/1-A
Matrix: Solid
Analysis Batch: 64930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 64907

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		10/17/23 16:16	10/18/23 20:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/17/23 16:16	10/18/23 20:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/17/23 16:16	10/18/23 20:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*194*	*S1+*	*70 - 130*	*10/17/23 16:16*	*10/18/23 20:05*	*1*
o-Terphenyl (Surr)	*164*	*S1+*	*70 - 130*	*10/17/23 16:16*	*10/18/23 20:05*	*1*

Lab Sample ID: LCS 880-64907/2-A
Matrix: Solid
Analysis Batch: 64930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 64907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	791.7		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1239		mg/Kg		124	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-64907/2-A
Matrix: Solid
Analysis Batch: 64930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 64907

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	115		70 - 130
o-Terphenyl (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-64907/3-A
Matrix: Solid
Analysis Batch: 64930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 64907

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	894.2		mg/Kg		89	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	1391	*+	mg/Kg		139	70 - 130	12	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	115		70 - 130
o-Terphenyl (Surr)	106		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-64957/1-A
Matrix: Solid
Analysis Batch: 65358

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			10/23/23 15:37	1

Lab Sample ID: LCS 880-64957/2-A
Matrix: Solid
Analysis Batch: 65358

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	242.5		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-64957/3-A
Matrix: Solid
Analysis Batch: 65358

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	243.8		mg/Kg		98	90 - 110	1	20

Lab Sample ID: MB 880-65392/1-A
Matrix: Solid
Analysis Batch: 65472

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			10/25/23 12:21	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-65392/2-A
Matrix: Solid
Analysis Batch: 65472

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	244.9		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-65392/3-A
Matrix: Solid
Analysis Batch: 65472

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	246.0		mg/Kg		98	90 - 110	0	20

Lab Sample ID: MB 880-65614/1-A
Matrix: Solid
Analysis Batch: 65660

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			10/26/23 11:31	1

Lab Sample ID: LCS 880-65614/2-A
Matrix: Solid
Analysis Batch: 65660

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	243.5		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-65614/3-A
Matrix: Solid
Analysis Batch: 65660

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	242.9		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 880-34572-8 MS
Matrix: Solid
Analysis Batch: 65660

Client Sample ID: SW-9A, 0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	55.0		251	304.9		mg/Kg		100	90 - 110		

Lab Sample ID: 880-34572-8 MSD
Matrix: Solid
Analysis Batch: 65660

Client Sample ID: SW-9A, 0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	55.0		251	305.0		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

GC VOA

Prep Batch: 64991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-64991/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 64998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-64998/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 65025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-6	SW-6, 0-4.5'	Total/NA	Solid	8021B	65043
880-34572-7	SW-2, 0-1'	Total/NA	Solid	8021B	65043
MB 880-64998/5-A	Method Blank	Total/NA	Solid	8021B	64998
MB 880-65043/5-A	Method Blank	Total/NA	Solid	8021B	65043
LCS 880-65043/1-A	Lab Control Sample	Total/NA	Solid	8021B	65043
LCSD 880-65043/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	65043

Analysis Batch: 65026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-1	C-11 7'	Total/NA	Solid	8021B	65044
880-34572-2	SW-10, 0-2'	Total/NA	Solid	8021B	65044
880-34572-3	SW-3, 0-4.1'	Total/NA	Solid	8021B	65044
880-34572-4	SW-4, 0-4.1'	Total/NA	Solid	8021B	65044
880-34572-5	SW-5, 0-4.5'	Total/NA	Solid	8021B	65044
880-34572-8	SW-9A, 0-1'	Total/NA	Solid	8021B	65044
MB 880-64991/5-A	Method Blank	Total/NA	Solid	8021B	64991
MB 880-65044/5-A	Method Blank	Total/NA	Solid	8021B	65044
LCS 880-65044/1-A	Lab Control Sample	Total/NA	Solid	8021B	65044
LCSD 880-65044/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	65044

Prep Batch: 65043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-6	SW-6, 0-4.5'	Total/NA	Solid	5035	
880-34572-7	SW-2, 0-1'	Total/NA	Solid	5035	
MB 880-65043/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-65043/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-65043/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 65044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-1	C-11 7'	Total/NA	Solid	5035	
880-34572-2	SW-10, 0-2'	Total/NA	Solid	5035	
880-34572-3	SW-3, 0-4.1'	Total/NA	Solid	5035	
880-34572-4	SW-4, 0-4.1'	Total/NA	Solid	5035	
880-34572-5	SW-5, 0-4.5'	Total/NA	Solid	5035	
880-34572-8	SW-9A, 0-1'	Total/NA	Solid	5035	
MB 880-65044/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-65044/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-65044/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 65202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-1	C-11 7'	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

GC VOA (Continued)

Analysis Batch: 65202 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-2	SW-10, 0-2'	Total/NA	Solid	Total BTEX	
880-34572-3	SW-3, 0-4.1'	Total/NA	Solid	Total BTEX	
880-34572-4	SW-4, 0-4.1'	Total/NA	Solid	Total BTEX	
880-34572-5	SW-5, 0-4.5'	Total/NA	Solid	Total BTEX	
880-34572-6	SW-6, 0-4.5'	Total/NA	Solid	Total BTEX	
880-34572-7	SW-2, 0-1'	Total/NA	Solid	Total BTEX	
880-34572-8	SW-9A, 0-1'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 64907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-1	C-11 7'	Total/NA	Solid	8015NM Prep	
880-34572-2	SW-10, 0-2'	Total/NA	Solid	8015NM Prep	
880-34572-3	SW-3, 0-4.1'	Total/NA	Solid	8015NM Prep	
880-34572-4	SW-4, 0-4.1'	Total/NA	Solid	8015NM Prep	
880-34572-5	SW-5, 0-4.5'	Total/NA	Solid	8015NM Prep	
880-34572-6	SW-6, 0-4.5'	Total/NA	Solid	8015NM Prep	
880-34572-7	SW-2, 0-1'	Total/NA	Solid	8015NM Prep	
880-34572-8	SW-9A, 0-1'	Total/NA	Solid	8015NM Prep	
MB 880-64907/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-64907/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-64907/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 64930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-1	C-11 7'	Total/NA	Solid	8015B NM	64907
880-34572-2	SW-10, 0-2'	Total/NA	Solid	8015B NM	64907
880-34572-3	SW-3, 0-4.1'	Total/NA	Solid	8015B NM	64907
880-34572-4	SW-4, 0-4.1'	Total/NA	Solid	8015B NM	64907
880-34572-5	SW-5, 0-4.5'	Total/NA	Solid	8015B NM	64907
880-34572-6	SW-6, 0-4.5'	Total/NA	Solid	8015B NM	64907
880-34572-7	SW-2, 0-1'	Total/NA	Solid	8015B NM	64907
880-34572-8	SW-9A, 0-1'	Total/NA	Solid	8015B NM	64907
MB 880-64907/1-A	Method Blank	Total/NA	Solid	8015B NM	64907
LCS 880-64907/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	64907
LCSD 880-64907/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	64907

Analysis Batch: 65074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-1	C-11 7'	Total/NA	Solid	8015 NM	
880-34572-2	SW-10, 0-2'	Total/NA	Solid	8015 NM	
880-34572-3	SW-3, 0-4.1'	Total/NA	Solid	8015 NM	
880-34572-4	SW-4, 0-4.1'	Total/NA	Solid	8015 NM	
880-34572-5	SW-5, 0-4.5'	Total/NA	Solid	8015 NM	
880-34572-6	SW-6, 0-4.5'	Total/NA	Solid	8015 NM	
880-34572-7	SW-2, 0-1'	Total/NA	Solid	8015 NM	
880-34572-8	SW-9A, 0-1'	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

HPLC/IC

Leach Batch: 64957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-1	C-11 7'	Soluble	Solid	DI Leach	
880-34572-2	SW-10, 0-2'	Soluble	Solid	DI Leach	
880-34572-3	SW-3, 0-4.1'	Soluble	Solid	DI Leach	
880-34572-4	SW-4, 0-4.1'	Soluble	Solid	DI Leach	
880-34572-5	SW-5, 0-4.5'	Soluble	Solid	DI Leach	
880-34572-6	SW-6, 0-4.5'	Soluble	Solid	DI Leach	
880-34572-7	SW-2, 0-1'	Soluble	Solid	DI Leach	
MB 880-64957/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-64957/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-64957/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 65358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-1	C-11 7'	Soluble	Solid	300.0	64957
880-34572-2	SW-10, 0-2'	Soluble	Solid	300.0	64957
880-34572-3	SW-3, 0-4.1'	Soluble	Solid	300.0	64957
880-34572-4	SW-4, 0-4.1'	Soluble	Solid	300.0	64957
880-34572-5	SW-5, 0-4.5'	Soluble	Solid	300.0	64957
880-34572-6	SW-6, 0-4.5'	Soluble	Solid	300.0	64957
880-34572-7	SW-2, 0-1'	Soluble	Solid	300.0	64957
MB 880-64957/1-A	Method Blank	Soluble	Solid	300.0	64957
LCS 880-64957/2-A	Lab Control Sample	Soluble	Solid	300.0	64957
LCSD 880-64957/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	64957

Leach Batch: 65392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-65392/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-65392/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-65392/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 65472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-65392/1-A	Method Blank	Soluble	Solid	300.0	65392
LCS 880-65392/2-A	Lab Control Sample	Soluble	Solid	300.0	65392
LCSD 880-65392/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	65392

Leach Batch: 65614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-8	SW-9A, 0-1'	Soluble	Solid	DI Leach	
MB 880-65614/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-65614/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-65614/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-34572-8 MS	SW-9A, 0-1'	Soluble	Solid	DI Leach	
880-34572-8 MSD	SW-9A, 0-1'	Soluble	Solid	DI Leach	

Analysis Batch: 65660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-8	SW-9A, 0-1'	Soluble	Solid	300.0	65614
MB 880-65614/1-A	Method Blank	Soluble	Solid	300.0	65614
LCS 880-65614/2-A	Lab Control Sample	Soluble	Solid	300.0	65614
LCSD 880-65614/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	65614

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

HPLC/IC (Continued)

Analysis Batch: 65660 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34572-8 MS	SW-9A, 0-1'	Soluble	Solid	300.0	65614
880-34572-8 MSD	SW-9A, 0-1'	Soluble	Solid	300.0	65614

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Client Sample ID: C-11 7'

Date Collected: 10/16/23 10:00
Date Received: 10/18/23 08:24

Lab Sample ID: 880-34572-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	65044	10/19/23 13:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65026	10/20/23 02:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			65202	10/20/23 02:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			65074	10/19/23 01:02	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	64907	10/18/23 11:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	64930	10/19/23 01:02	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	64957	10/18/23 11:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	65358	10/23/23 17:52	CH	EET MID

Client Sample ID: SW-10, 0-2'

Date Collected: 10/16/23 10:10
Date Received: 10/18/23 08:24

Lab Sample ID: 880-34572-2

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			5.04 g	5 mL	65044	10/19/23 13:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65026	10/20/23 03:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			65202	10/20/23 03:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			65074	10/19/23 01:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	64907	10/18/23 11:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	64930	10/19/23 01:46	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	64957	10/18/23 11:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	65358	10/23/23 17:58	CH	EET MID

Client Sample ID: SW-3, 0-4.1'

Date Collected: 10/16/23 10:20
Date Received: 10/18/23 08:24

Lab Sample ID: 880-34572-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	65044	10/19/23 13:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65026	10/20/23 05:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			65202	10/20/23 05:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			65074	10/19/23 02:07	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	64907	10/18/23 11:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	64930	10/19/23 02:07	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	64957	10/18/23 11:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	65358	10/23/23 18:04	CH	EET MID

Client Sample ID: SW-4, 0-4.1'

Date Collected: 10/16/23 10:30
Date Received: 10/18/23 08:24

Lab Sample ID: 880-34572-4

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	65044	10/19/23 13:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65026	10/20/23 05:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			65202	10/20/23 05:21	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Client Sample ID: SW-4, 0-4.1'
Date Collected: 10/16/23 10:30
Date Received: 10/18/23 08:24

Lab Sample ID: 880-34572-4
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			65074	10/19/23 02:28	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	64907	10/18/23 11:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	64930	10/19/23 02:28	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	64957	10/18/23 11:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	65358	10/23/23 18:09	CH	EET MID

Client Sample ID: SW-5, 0-4.5'
Date Collected: 10/16/23 10:40
Date Received: 10/18/23 08:24

Lab Sample ID: 880-34572-5
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			5.02 g	5 mL	65044	10/19/23 13:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65026	10/20/23 05:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			65202	10/20/23 05:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			65074	10/19/23 02:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	64907	10/18/23 11:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	64930	10/19/23 02:49	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	64957	10/18/23 11:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	65358	10/23/23 18:15	CH	EET MID

Client Sample ID: SW-6, 0-4.5'
Date Collected: 10/16/23 10:50
Date Received: 10/18/23 08:24

Lab Sample ID: 880-34572-6
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			5.02 g	5 mL	65043	10/19/23 13:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65025	10/20/23 05:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			65202	10/20/23 05:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			65074	10/19/23 03:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	64907	10/18/23 11:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	64930	10/19/23 03:10	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	64957	10/18/23 11:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	65358	10/23/23 18:21	CH	EET MID

Client Sample ID: SW-2, 0-1'
Date Collected: 10/17/23 08:00
Date Received: 10/18/23 08:24

Lab Sample ID: 880-34572-7
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			5.00 g	5 mL	65043	10/19/23 13:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65025	10/20/23 06:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			65202	10/20/23 06:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			65074	10/19/23 03:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	64907	10/18/23 11:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	64930	10/19/23 03:31	SM	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Client Sample ID: SW-2, 0-1'

Lab Sample ID: 880-34572-7
Matrix: Solid
Date Collected: 10/17/23 08:00
Date Received: 10/18/23 08:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.00 g	50 mL	64957	10/18/23 11:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	65358	10/23/23 18:26	CH	EET MID

Client Sample ID: SW-9A, 0-1'

Lab Sample ID: 880-34572-8
Matrix: Solid
Date Collected: 10/17/23 09:00
Date Received: 10/18/23 08:24

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	65044	10/19/23 13:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65026	10/20/23 06:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			65202	10/20/23 06:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			65074	10/19/23 03:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	64907	10/18/23 11:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	64930	10/19/23 03:52	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	65614	10/26/23 10:31	CH	EET MID
Soluble	Analysis	300.0		1			65660	10/26/23 15:23	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

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	T104704400-23-26	06-30-24

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: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

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

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-34572-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-34572-1	C-11 7'	Solid	10/16/23 10:00	10/18/23 08:24
880-34572-2	SW-10, 0-2'	Solid	10/16/23 10:10	10/18/23 08:24
880-34572-3	SW-3, 0-4.1'	Solid	10/16/23 10:20	10/18/23 08:24
880-34572-4	SW-4, 0-4.1'	Solid	10/16/23 10:30	10/18/23 08:24
880-34572-5	SW-5, 0-4.5'	Solid	10/16/23 10:40	10/18/23 08:24
880-34572-6	SW-6, 0-4.5'	Solid	10/16/23 10:50	10/18/23 08:24
880-34572-7	SW-2, 0-1'	Solid	10/17/23 08:00	10/18/23 08:24
880-34572-8	SW-9A, 0-1'	Solid	10/17/23 09:00	10/18/23 08:24

Page 383 of 472

34572 No. 3178

CHAIN-OF-CUSTODY

10/27/2023 (Rev. 1)

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

Data Reported to: Robert Nelson

DATE: 10-17-2023 PAGE 1 OF 1

PO#: _____ LAB WORK ORDER#: _____

PROJECT LOCATION OR NAME: Gravitas SWD

LAI PROJECT #: 22-0105-03 COLLECTOR: KB

TRRP report? ☐ Yes ☒ No

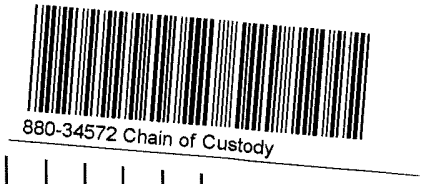
TIME ZONE: Time zone/State: mst/NM

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

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

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | 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	TRPH	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	VOC 8260	SVOC 8270	8081 PESTICIDES	8082 PCBS	TCLP - METALS (RCRA)	TCLP - PEST	TOTAL METALS (RCRA)	LEAD - TOTAL	RCI	TDS	pH	CHLORIDES	FIELD NOTES
C-11 7'		10-16-23	1000	S	1				X		X		X	X	X												X	202
SW-1, 0-2'			1010																									
SW-3, 0-4.1'			1020																									
SW-4, 0-4.1'			1030																									
SW-5, 0-4.5'			1040																									
SW-6, 0-4.5'			1050																									
SW-2, 0-1'		10-17-23	0800																									
SW-9A, 0-1'		10-17-23	0900																									
TOTAL																												



RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
	10/18/23 0824	
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 -2.6 / -2.8 THERM# TW28 +.20
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☑ HAND DELIVERED

Page 29 of 30

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-34572-1
SDG Number: 22-0105-03

Login Number: 34572
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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 11/28/2023 11:24:31 AM

JOB DESCRIPTION

Gravitas SWD
22-0105-03

JOB NUMBER

880-35973-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 5/31/2024 3:12:55 PM

my EOL

Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Holly Taylor

Generated
11/28/2023 11:24:31 AM

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Laboratory Job ID: 880-35973-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 6
Surrogate Summary 7
QC Sample Results 8
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 18

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-35973-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
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. Job ID: 880-35973-1
Project/Site: Gravitas SWD SDG: 22-0105-03

Job ID: 880-35973-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-35973-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 11/17/2023 4:17 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: C-16 - 2' (880-35973-1).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: C-16 - 2' (880-35973-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-67423 and analytical batch 880-67486 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-16 - 2' (880-35973-1), (890-5640-A-25-B), (890-5640-A-25-C MS) and (890-5640-A-25-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-67423 and analytical batch 880-67486 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; 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.

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: Gravitas SWD

Job ID: 880-35973-1
SDG: 22-0105-03

Client Sample ID: C-16 - 2'

Date Collected: 11/16/23 13:45
Date Received: 11/17/23 16:17

Lab Sample ID: 880-35973-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:19	11/27/23 13:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:19	11/27/23 13:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:19	11/27/23 13:59	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		11/21/23 16:19	11/27/23 13:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:19	11/27/23 13:59	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/21/23 16:19	11/27/23 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*11/21/23 16:19*	*11/27/23 13:59*	*1*
1,4-Difluorobenzene (Surr)	*53*	*S1-*	*70 - 130*	*11/21/23 16:19*	*11/27/23 13:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/27/23 13:59	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			11/22/23 03:49	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		11/20/23 12:22	11/22/23 03:49	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		11/20/23 12:22	11/22/23 03:49	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		11/20/23 12:22	11/22/23 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*150*	*S1+*	*70 - 130*	*11/20/23 12:22*	*11/22/23 03:49*	*1*
o-Terphenyl (Surr)	*134*	*S1+*	*70 - 130*	*11/20/23 12:22*	*11/22/23 03:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68.2**		5.02		mg/Kg			11/23/23 08:50	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-35973-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-35973-1	C-16 - 2'	102	53 S1-										
880-35973-1 MS	C-16 - 2'	114	106										
880-35973-1 MSD	C-16 - 2'	117	97										
LCS 880-67582/1-A	Lab Control Sample	109	103										
LCSD 880-67582/2-A	Lab Control Sample Dup	111	103										
MB 880-67582/5-A	Method Blank	72	72										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-35973-1	C-16 - 2'	150 S1+	134 S1+										
LCS 880-67423/2-A	Lab Control Sample	82	88										
LCSD 880-67423/3-A	Lab Control Sample Dup	98	103										
MB 880-67423/1-A	Method Blank	131 S1+	118										

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-35973-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-67582/5-A
Matrix: Solid
Analysis Batch: 67690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67582

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:19	11/27/23 11:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:19	11/27/23 11:27	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:19	11/27/23 11:27	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		11/21/23 16:19	11/27/23 11:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:19	11/27/23 11:27	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/21/23 16:19	11/27/23 11:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*11/21/23 16:19*	*11/27/23 11:27*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*11/21/23 16:19*	*11/27/23 11:27*	*1*

Lab Sample ID: LCS 880-67582/1-A
Matrix: Solid
Analysis Batch: 67690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67582

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09952		mg/Kg		100	70 - 130		
Toluene			0.100	0.09407		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.1039		mg/Kg		104	70 - 130		
m,p-Xylenes			0.200	0.2180		mg/Kg		109	70 - 130		
o-Xylene			0.100	0.1042		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-67582/2-A
Matrix: Solid
Analysis Batch: 67690

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67582

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09394		mg/Kg		94	70 - 130	6	35
Toluene			0.100	0.08565		mg/Kg		86	70 - 130	9	35
Ethylbenzene			0.100	0.09515		mg/Kg		95	70 - 130	9	35
m,p-Xylenes			0.200	0.1979		mg/Kg		99	70 - 130	10	35
o-Xylene			0.100	0.09447		mg/Kg		94	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-35973-1 MS
Matrix: Solid
Analysis Batch: 67690

Client Sample ID: C-16 - 2'
Prep Type: Total/NA
Prep Batch: 67582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0996	0.08406		mg/Kg		84	70 - 130		
Toluene	<0.00200	U	0.0996	0.07639		mg/Kg		76	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-35973-1
SDG: 22-0105-03

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

Lab Sample ID: 880-35973-1 MS
Matrix: Solid
Analysis Batch: 67690

Client Sample ID: C-16 - 2'
Prep Type: Total/NA
Prep Batch: 67582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0996	0.08490		mg/Kg		85	70 - 130
m,p-Xylenes	<0.00401	U	0.199	0.1762		mg/Kg		88	70 - 130
o-Xylene	<0.00200	U	0.0996	0.08410		mg/Kg		84	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-35973-1 MSD
Matrix: Solid
Analysis Batch: 67690

Client Sample ID: C-16 - 2'
Prep Type: Total/NA
Prep Batch: 67582

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0998	0.07624		mg/Kg		76	70 - 130	10	35
Toluene	<0.00200	U	0.0998	0.07310		mg/Kg		73	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.0998	0.08278		mg/Kg		83	70 - 130	3	35
m,p-Xylenes	<0.00401	U	0.200	0.1684		mg/Kg		84	70 - 130	5	35
o-Xylene	<0.00200	U	0.0998	0.08049		mg/Kg		81	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-67423/1-A
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67423

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		11/20/23 12:22	11/21/23 20:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/20/23 12:22	11/21/23 20:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/20/23 12:22	11/21/23 20:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*131*	*S1+*	*70 - 130*	*11/20/23 12:22*	*11/21/23 20:08*	*1*
o-Terphenyl (Surr)	*118*		*70 - 130*	*11/20/23 12:22*	*11/21/23 20:08*	*1*

Lab Sample ID: LCS 880-67423/2-A
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67423

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	992.9		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)			1000	934.2		mg/Kg		93	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-35973-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-67423/2-A
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67423

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	82		70 - 130
o-Terphenyl (Surr)	88		70 - 130

Lab Sample ID: LCSD 880-67423/3-A
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67423

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1022		mg/Kg		102	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1021		mg/Kg		102	70 - 130	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	98		70 - 130
o-Terphenyl (Surr)	103		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-67543/1-A
Matrix: Solid
Analysis Batch: 67661

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			11/23/23 07:05	1

Lab Sample ID: LCS 880-67543/2-A
Matrix: Solid
Analysis Batch: 67661

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	257.9		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-67543/3-A
Matrix: Solid
Analysis Batch: 67661

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	260.2		mg/Kg		104	90 - 110	1	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-35973-1
SDG: 22-0105-03

GC VOA

Prep Batch: 67582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35973-1	C-16 - 2'	Total/NA	Solid	5035	
MB 880-67582/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-67582/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-67582/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-35973-1 MS	C-16 - 2'	Total/NA	Solid	5035	
880-35973-1 MSD	C-16 - 2'	Total/NA	Solid	5035	

Analysis Batch: 67690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35973-1	C-16 - 2'	Total/NA	Solid	8021B	67582
MB 880-67582/5-A	Method Blank	Total/NA	Solid	8021B	67582
LCS 880-67582/1-A	Lab Control Sample	Total/NA	Solid	8021B	67582
LCSD 880-67582/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	67582
880-35973-1 MS	C-16 - 2'	Total/NA	Solid	8021B	67582
880-35973-1 MSD	C-16 - 2'	Total/NA	Solid	8021B	67582

Analysis Batch: 67784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35973-1	C-16 - 2'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 67423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35973-1	C-16 - 2'	Total/NA	Solid	8015NM Prep	
MB 880-67423/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-67423/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-67423/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 67486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35973-1	C-16 - 2'	Total/NA	Solid	8015B NM	67423
MB 880-67423/1-A	Method Blank	Total/NA	Solid	8015B NM	67423
LCS 880-67423/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	67423
LCSD 880-67423/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	67423

Analysis Batch: 67613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35973-1	C-16 - 2'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 67543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35973-1	C-16 - 2'	Soluble	Solid	DI Leach	
MB 880-67543/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-67543/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-67543/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 67661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35973-1	C-16 - 2'	Soluble	Solid	300.0	67543

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-35973-1
SDG: 22-0105-03

HPLC/IC (Continued)

Analysis Batch: 67661 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-67543/1-A	Method Blank	Soluble	Solid	300.0	67543
LCS 880-67543/2-A	Lab Control Sample	Soluble	Solid	300.0	67543
LCSD 880-67543/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	67543

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-35973-1
SDG: 22-0105-03

Client Sample ID: C-16 - 2'
Date Collected: 11/16/23 13:45
Date Received: 11/17/23 16:17

Lab Sample ID: 880-35973-1
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			4.99 g	5 mL	67582	11/21/23 16:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67690	11/27/23 13:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67784	11/27/23 13:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			67613	11/22/23 03:49	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	67423	11/20/23 12:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/22/23 03:49	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	67543	11/21/23 11:10	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67661	11/23/23 08:50	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-35973-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-35973-1
Project/Site: Gravitas SWD SDG: 22-0105-03

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-35973-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-35973-1	C-16 - 2'	Solid	11/16/23 13:45	11/17/23 16:17

Page 401 of 472

35973 No. 3208

CHAIN-OF-CUSTODY

11/28/2023

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

DATE 11/17/2023 PAGE 1 OF 1

PO# _____ LAB WORK ORDER#. _____

PROJECT LOCATION OR NAME GRAVITAS SWD

LAI PROJECT # 22-0105-03 COLLECTOR. STAN BATES

Data Reported to ROBERT NELSON / MARC LARSON

TRRP report? ☐ Yes ☒ No

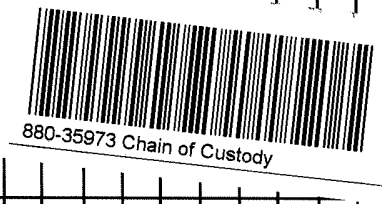
TIME ZONE Time zone/State MST/NM

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

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

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☒ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | 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-16 - 2'		11/16/23	1'45	S	1				X	X			X	X	X														X			
TOTAL																																



RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
	11/17/23 1617	
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 -.2 | 10.0 THERM# _____
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Page 17 of 18

Received by OCD: 5/8/2024 2:07:46 PM

Released to Imaging: 5/31/2024 3:12:53 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-35973-1
SDG Number: 22-0105-03

Login Number: 35973
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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 2/23/2024 2:54:39 PM Revision 1

JOB DESCRIPTION

Gravitas
22-0105-03

JOB NUMBER

880-38960-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 5/31/2024 3:12:55 PM

my EOL

Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Holly Taylor

Generated
2/23/2024 2:54:39 PM
Revision 1

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Laboratory Job ID: 880-38960-1
SDG: 22-0105-03

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Client Sample Results 7
Surrogate Summary 18
QC Sample Results 20
QC Association Summary 27
Lab Chronicle 32
Certification Summary 37
Method Summary 38
Sample Summary 39
Chain of Custody 40
Receipt Checklists 41

Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Larson & Associates, Inc. Job ID: 880-38960-1
Project: Gravitas

Job ID: 880-38960-1 Eurofins Midland

Job Narrative
880-38960-1

REVISION
The report being provided is a revision of the original report sent on 2/21/2024. The report (revision 1) is being revised to report the results for the reanalysis of Cl per Robert Nelson.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/6/2024 9:19 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: D-5 3-4' (880-38960-1), D-5 4-5' (880-38960-2), D-5 5-6' (880-38960-3), D-5 6-7' (880-38960-4), D-5 7-8' (880-38960-5), D-5 8-9' (880-38960-6), D-5 9-10' (880-38960-7), D-2 0-1' (880-38960-8), D-3 0-1' (880-38960-9), D-4 0-1' (880-38960-10), D-1 0-1' (880-38960-11), D-7 0-1' (880-38960-12), D-6 5.5-6.5 (880-38960-13) and D-6 6.5-7.5 (880-38960-14).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-73182/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-73182 and analytical batch 880-73209 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 8021B: The surrogate recovery for the blank associated with preparation batch 880-73629 and analytical batch 880-73610 was outside the control limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: D-5 3-4' (880-38960-1) and (880-39540-A-1-D). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-73632 and analytical batch 880-73611 recovered outside control limits for the following analytes: m,p-Xylenes. Since only an acceptable LCS is required per the method, the data has been qualified and reported.

Method 8021B: Reanalysis of the following samples were performed outside of the analytical holding time due to failing QC parameters in initial run: D-5 3-4' (880-38960-1), D-5 4-5' (880-38960-2), D-5 5-6' (880-38960-3), D-5 6-7' (880-38960-4), D-5 7-8' (880-38960-5), D-5 8-9' (880-38960-6), D-5 9-10' (880-38960-7), D-2 0-1' (880-38960-8) and D-3 0-1' (880-38960-9).

Method 8021B: Reanalysis of the following sample was performed outside of the analytical holding time due to failing QC parameters in initial run: D-4 0-1' (880-38960-10).

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72497 and analytical batch 880-72812 was outside the upper control limits.

Case Narrative

Client: Larson & Associates, Inc. Job ID: 880-38960-1
Project: Gravitas

Job ID: 880-38960-1 (Continued) Eurofins Midland

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: D-5 8-9' (880-38960-6), D-5 9-10' (880-38960-7), D-3 0-1' (880-38960-9), D-1 0-1' (880-38960-11), (880-38945-A-1-B), (880-38945-A-1-C MS) and (880-38945-A-1-D MSD). 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.

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: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-5 3-4'

Date Collected: 02/02/24 10:40
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 14:40	1
Toluene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 14:40	1
Ethylbenzene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 14:40	1
m,p-Xylenes	<0.00403	U H	0.00403		mg/Kg		02/20/24 10:04	02/20/24 14:40	1
o-Xylene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 14:40	1
Xylenes, Total	<0.00403	U H	0.00403		mg/Kg		02/20/24 10:04	02/20/24 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/20/24 10:04*	*02/20/24 14:40*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/20/24 10:04*	*02/20/24 14:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/20/24 14:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/11/24 13:18	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/06/24 12:29	02/11/24 13:18	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/06/24 12:29	02/11/24 13:18	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/06/24 12:29	02/11/24 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*108*		*70 - 130*	*02/06/24 12:29*	*02/11/24 13:18*	*1*
o-Terphenyl (Surr)	*89*		*70 - 130*	*02/06/24 12:29*	*02/11/24 13:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8900**		50.2		mg/Kg			02/09/24 02:24	10

Client Sample ID: D-5 4-5'

Date Collected: 02/02/24 10:47
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U H	0.00199		mg/Kg		02/20/24 10:04	02/20/24 16:50	1
Toluene	<0.00199	U H	0.00199		mg/Kg		02/20/24 10:04	02/20/24 16:50	1
Ethylbenzene	<0.00199	U H	0.00199		mg/Kg		02/20/24 10:04	02/20/24 16:50	1
m,p-Xylenes	<0.00398	U H	0.00398		mg/Kg		02/20/24 10:04	02/20/24 16:50	1
o-Xylene	<0.00199	U H	0.00199		mg/Kg		02/20/24 10:04	02/20/24 16:50	1
Xylenes, Total	<0.00398	U H	0.00398		mg/Kg		02/20/24 10:04	02/20/24 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*02/20/24 10:04*	*02/20/24 16:50*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/20/24 10:04*	*02/20/24 16:50*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-5 4-5'
Date Collected: 02/02/24 10:47
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/20/24 16:50	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/11/24 13:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/06/24 12:29	02/11/24 13:40	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/06/24 12:29	02/11/24 13:40	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/06/24 12:29	02/11/24 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*125*		*70 - 130*	*02/06/24 12:29*	*02/11/24 13:40*	*1*
o-Terphenyl (Surr)	*105*		*70 - 130*	*02/06/24 12:29*	*02/11/24 13:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8000**		101		mg/Kg			02/09/24 02:45	20

Client Sample ID: D-5 5-6'
Date Collected: 02/02/24 10:55
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:04	02/20/24 17:10	1
Toluene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:04	02/20/24 17:10	1
Ethylbenzene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:04	02/20/24 17:10	1
m,p-Xylenes	<0.00400	U H	0.00400		mg/Kg		02/20/24 10:04	02/20/24 17:10	1
o-Xylene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:04	02/20/24 17:10	1
Xylenes, Total	<0.00400	U H	0.00400		mg/Kg		02/20/24 10:04	02/20/24 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*02/20/24 10:04*	*02/20/24 17:10*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/20/24 10:04*	*02/20/24 17:10*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/20/24 17:10	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/11/24 14:02	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/06/24 12:29	02/11/24 14:02	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/06/24 12:29	02/11/24 14:02	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-5 5-6'

Date Collected: 02/02/24 10:55
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-3

Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/06/24 12:29	02/11/24 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*102*		*70 - 130*	*02/06/24 12:29*	*02/11/24 14:02*	*1*
o-Terphenyl (Surr)	*87*		*70 - 130*	*02/06/24 12:29*	*02/11/24 14:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6060**		101		mg/Kg			02/09/24 02:52	20

Client Sample ID: D-5 6-7'

Date Collected: 02/02/24 11:15
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-4

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:04	02/20/24 17:31	1
Toluene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:04	02/20/24 17:31	1
Ethylbenzene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:04	02/20/24 17:31	1
m,p-Xylenes	<0.00400	U H	0.00400		mg/Kg		02/20/24 10:04	02/20/24 17:31	1
o-Xylene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:04	02/20/24 17:31	1
Xylenes, Total	<0.00400	U H	0.00400		mg/Kg		02/20/24 10:04	02/20/24 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*02/20/24 10:04*	*02/20/24 17:31*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/20/24 10:04*	*02/20/24 17:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/20/24 17:31	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/11/24 14:24	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/06/24 12:29	02/11/24 14:24	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/06/24 12:29	02/11/24 14:24	1
Oll Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/06/24 12:29	02/11/24 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*119*		*70 - 130*	*02/06/24 12:29*	*02/11/24 14:24*	*1*
o-Terphenyl (Surr)	*100*		*70 - 130*	*02/06/24 12:29*	*02/11/24 14:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6000**		101		mg/Kg			02/09/24 02:58	20

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-5 7-8'

Date Collected: 02/02/24 11:26
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-5

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 17:52	1
Toluene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 17:52	1
Ethylbenzene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 17:52	1
m,p-Xylenes	<0.00404	U H	0.00404		mg/Kg		02/20/24 10:04	02/20/24 17:52	1
o-Xylene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 17:52	1
Xylenes, Total	<0.00404	U H	0.00404		mg/Kg		02/20/24 10:04	02/20/24 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*02/20/24 10:04*	*02/20/24 17:52*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/20/24 10:04*	*02/20/24 17:52*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/20/24 17:52	1

Method: SW846 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			02/11/24 15:08	1

Method: SW846 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		02/06/24 12:29	02/11/24 15:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/06/24 12:29	02/11/24 15:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/06/24 12:29	02/11/24 15:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*108*		*70 - 130*	*02/06/24 12:29*	*02/11/24 15:08*	*1*
o-Terphenyl (Surr)	*88*		*70 - 130*	*02/06/24 12:29*	*02/11/24 15:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1550**		49.7		mg/Kg			02/09/24 03:05	10

Client Sample ID: D-5 8-9'

Date Collected: 02/02/24 11:45
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-6

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U H	0.00201		mg/Kg		02/20/24 10:04	02/20/24 18:13	1
Toluene	<0.00201	U H	0.00201		mg/Kg		02/20/24 10:04	02/20/24 18:13	1
Ethylbenzene	<0.00201	U H	0.00201		mg/Kg		02/20/24 10:04	02/20/24 18:13	1
m,p-Xylenes	<0.00402	U H	0.00402		mg/Kg		02/20/24 10:04	02/20/24 18:13	1
o-Xylene	<0.00201	U H	0.00201		mg/Kg		02/20/24 10:04	02/20/24 18:13	1
Xylenes, Total	<0.00402	U H	0.00402		mg/Kg		02/20/24 10:04	02/20/24 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*02/20/24 10:04*	*02/20/24 18:13*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*02/20/24 10:04*	*02/20/24 18:13*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-5 8-9'

Date Collected: 02/02/24 11:45
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-6

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/20/24 18:13	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/11/24 15:31	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/06/24 12:29	02/11/24 15:31	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/06/24 12:29	02/11/24 15:31	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/06/24 12:29	02/11/24 15:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*89*		*70 - 130*	*02/06/24 12:29*	*02/11/24 15:31*	*1*
o-Terphenyl (Surr)	*67*	*S1-*	*70 - 130*	*02/06/24 12:29*	*02/11/24 15:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7590**		99.2		mg/Kg			02/16/24 13:54	20

Client Sample ID: D-5 9-10'

Date Collected: 02/02/24 12:04
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-7

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 18:34	1
Toluene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 18:34	1
Ethylbenzene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 18:34	1
m,p-Xylenes	<0.00403	U H	0.00403		mg/Kg		02/20/24 10:04	02/20/24 18:34	1
o-Xylene	<0.00202	U H	0.00202		mg/Kg		02/20/24 10:04	02/20/24 18:34	1
Xylenes, Total	<0.00403	U H	0.00403		mg/Kg		02/20/24 10:04	02/20/24 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*02/20/24 10:04*	*02/20/24 18:34*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/20/24 10:04*	*02/20/24 18:34*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/20/24 18:34	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/11/24 15:54	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/06/24 12:29	02/11/24 15:54	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/06/24 12:29	02/11/24 15:54	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-5 9-10'

Date Collected: 02/02/24 12:04
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-7

Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/06/24 12:29	02/11/24 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*78*		*70 - 130*	*02/06/24 12:29*	*02/11/24 15:54*	*1*
o-Terphenyl (Surr)	*64*	*S1-*	*70 - 130*	*02/06/24 12:29*	*02/11/24 15:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**502**		5.04		mg/Kg			02/16/24 21:20	1

Client Sample ID: D-2 0-1'

Date Collected: 02/02/24 12:32
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-8

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U H	0.00199		mg/Kg		02/20/24 10:04	02/20/24 18:55	1
Toluene	<0.00199	U H	0.00199		mg/Kg		02/20/24 10:04	02/20/24 18:55	1
Ethylbenzene	<0.00199	U H	0.00199		mg/Kg		02/20/24 10:04	02/20/24 18:55	1
m,p-Xylenes	<0.00398	U H	0.00398		mg/Kg		02/20/24 10:04	02/20/24 18:55	1
o-Xylene	<0.00199	U H	0.00199		mg/Kg		02/20/24 10:04	02/20/24 18:55	1
Xylenes, Total	<0.00398	U H	0.00398		mg/Kg		02/20/24 10:04	02/20/24 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*02/20/24 10:04*	*02/20/24 18:55*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/20/24 10:04*	*02/20/24 18:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/20/24 18:55	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/11/24 16:17	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/06/24 12:29	02/11/24 16:17	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/06/24 12:29	02/11/24 16:17	1
Oll Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/06/24 12:29	02/11/24 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*88*		*70 - 130*	*02/06/24 12:29*	*02/11/24 16:17*	*1*
o-Terphenyl (Surr)	*72*		*70 - 130*	*02/06/24 12:29*	*02/11/24 16:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**200**		5.03		mg/Kg			02/16/24 21:27	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-3 0-1'

Date Collected: 02/02/24 12:54
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-9

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U H	0.00198		mg/Kg		02/20/24 10:04	02/20/24 19:15	1
Toluene	<0.00198	U H	0.00198		mg/Kg		02/20/24 10:04	02/20/24 19:15	1
Ethylbenzene	<0.00198	U H	0.00198		mg/Kg		02/20/24 10:04	02/20/24 19:15	1
m,p-Xylenes	<0.00396	U H	0.00396		mg/Kg		02/20/24 10:04	02/20/24 19:15	1
o-Xylene	<0.00198	U H	0.00198		mg/Kg		02/20/24 10:04	02/20/24 19:15	1
Xylenes, Total	<0.00396	U H	0.00396		mg/Kg		02/20/24 10:04	02/20/24 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*02/20/24 10:04*	*02/20/24 19:15*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/20/24 10:04*	*02/20/24 19:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/20/24 19:15	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/11/24 16:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/06/24 12:29	02/11/24 16:40	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/06/24 12:29	02/11/24 16:40	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/06/24 12:29	02/11/24 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*74*		*70 - 130*	*02/06/24 12:29*	*02/11/24 16:40*	*1*
o-Terphenyl (Surr)	*59*	*S1-*	*70 - 130*	*02/06/24 12:29*	*02/11/24 16:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**111**		5.02		mg/Kg			02/16/24 21:34	1

Client Sample ID: D-4 0-1'

Date Collected: 02/02/24 13:15
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-10

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:08	02/20/24 18:27	1
Toluene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:08	02/20/24 18:27	1
Ethylbenzene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:08	02/20/24 18:27	1
m,p-Xylenes	<0.00400	U *+ H	0.00400		mg/Kg		02/20/24 10:08	02/20/24 18:27	1
o-Xylene	<0.00200	U H	0.00200		mg/Kg		02/20/24 10:08	02/20/24 18:27	1
Xylenes, Total	<0.00400	U H	0.00400		mg/Kg		02/20/24 10:08	02/20/24 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*02/20/24 10:08*	*02/20/24 18:27*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/20/24 10:08*	*02/20/24 18:27*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-4 0-1'

Date Collected: 02/02/24 13:15
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-10
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/20/24 18:27	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/11/24 17:02	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/06/24 12:29	02/11/24 17:02	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/06/24 12:29	02/11/24 17:02	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/06/24 12:29	02/11/24 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*98*		*70 - 130*	*02/06/24 12:29*	*02/11/24 17:02*	*1*
o-Terphenyl (Surr)	*81*		*70 - 130*	*02/06/24 12:29*	*02/11/24 17:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**155**		5.02		mg/Kg			02/16/24 21:40	1

Client Sample ID: D-1 0-1'

Date Collected: 02/05/24 10:55
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-11
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/14/24 15:51	02/16/24 04:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/14/24 15:51	02/16/24 04:07	1
Ethylbenzene	<0.00200	U *+	0.00200		mg/Kg		02/14/24 15:51	02/16/24 04:07	1
m,p-Xylenes	<0.00400	U *+	0.00400		mg/Kg		02/14/24 15:51	02/16/24 04:07	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		02/14/24 15:51	02/16/24 04:07	1
Xylenes, Total	<0.00400	U *+	0.00400		mg/Kg		02/14/24 15:51	02/16/24 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/14/24 15:51*	*02/16/24 04:07*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/14/24 15:51*	*02/16/24 04:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/16/24 04:07	1

Method: SW846 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			02/11/24 17:25	1

Method: SW846 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		02/06/24 12:29	02/11/24 17:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/06/24 12:29	02/11/24 17:25	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-1 0-1'
Date Collected: 02/05/24 10:55
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-11
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/06/24 12:29	02/11/24 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*83*		*70 - 130*	*02/06/24 12:29*	*02/11/24 17:25*	*1*
o-Terphenyl (Surr)	*66*	*S1-*	*70 - 130*	*02/06/24 12:29*	*02/11/24 17:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**97.2**		5.00		mg/Kg			02/16/24 21:47	1

Client Sample ID: D-7 0-1'
Date Collected: 02/05/24 11:07
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-12
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/14/24 15:51	02/16/24 04:28	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/14/24 15:51	02/16/24 04:28	1
Ethylbenzene	<0.00202	U *+	0.00202		mg/Kg		02/14/24 15:51	02/16/24 04:28	1
m,p-Xylenes	<0.00404	U *+	0.00404		mg/Kg		02/14/24 15:51	02/16/24 04:28	1
o-Xylene	<0.00202	U *+	0.00202		mg/Kg		02/14/24 15:51	02/16/24 04:28	1
Xylenes, Total	<0.00404	U *+	0.00404		mg/Kg		02/14/24 15:51	02/16/24 04:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*02/14/24 15:51*	*02/16/24 04:28*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/14/24 15:51*	*02/16/24 04:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/16/24 04:28	1

Method: SW846 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			02/11/24 17:47	1

Method: SW846 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		02/06/24 12:29	02/11/24 17:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/24 12:29	02/11/24 17:47	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/24 12:29	02/11/24 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*101*		*70 - 130*	*02/06/24 12:29*	*02/11/24 17:47*	*1*
o-Terphenyl (Surr)	*83*		*70 - 130*	*02/06/24 12:29*	*02/11/24 17:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**137**		4.97		mg/Kg			02/16/24 22:07	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-6 5.5-6.5

Date Collected: 02/05/24 11:32
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-13

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/14/24 15:51	02/16/24 04:49	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/14/24 15:51	02/16/24 04:49	1
Ethylbenzene	<0.00201	U *+	0.00201		mg/Kg		02/14/24 15:51	02/16/24 04:49	1
m,p-Xylenes	<0.00402	U *+	0.00402		mg/Kg		02/14/24 15:51	02/16/24 04:49	1
o-Xylene	<0.00201	U *+	0.00201		mg/Kg		02/14/24 15:51	02/16/24 04:49	1
Xylenes, Total	<0.00402	U *+	0.00402		mg/Kg		02/14/24 15:51	02/16/24 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*02/14/24 15:51*	*02/16/24 04:49*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/14/24 15:51*	*02/16/24 04:49*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/16/24 04:49	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/11/24 18:09	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/06/24 12:29	02/11/24 18:09	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/06/24 12:29	02/11/24 18:09	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/06/24 12:29	02/11/24 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*95*		*70 - 130*	*02/06/24 12:29*	*02/11/24 18:09*	*1*
o-Terphenyl (Surr)	*79*		*70 - 130*	*02/06/24 12:29*	*02/11/24 18:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**208**		4.96		mg/Kg			02/16/24 22:14	1

Client Sample ID: D-6 6.5-7.5

Date Collected: 02/05/24 12:02
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-14

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/14/24 15:51	02/16/24 05:09	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/14/24 15:51	02/16/24 05:09	1
Ethylbenzene	<0.00202	U *+	0.00202		mg/Kg		02/14/24 15:51	02/16/24 05:09	1
m,p-Xylenes	<0.00403	U *+	0.00403		mg/Kg		02/14/24 15:51	02/16/24 05:09	1
o-Xylene	<0.00202	U *+	0.00202		mg/Kg		02/14/24 15:51	02/16/24 05:09	1
Xylenes, Total	<0.00403	U *+	0.00403		mg/Kg		02/14/24 15:51	02/16/24 05:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*02/14/24 15:51*	*02/16/24 05:09*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/14/24 15:51*	*02/16/24 05:09*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-6 6.5-7.5

Date Collected: 02/05/24 12:02
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-14

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/16/24 05:09	1

Method: SW846 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			02/11/24 18:32	1

Method: SW846 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		02/06/24 12:29	02/11/24 18:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/24 12:29	02/11/24 18:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/24 12:29	02/11/24 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*86*		*70 - 130*	*02/06/24 12:29*	*02/11/24 18:32*	*1*
o-Terphenyl (Surr)	*71*		*70 - 130*	*02/06/24 12:29*	*02/11/24 18:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**184**		4.99		mg/Kg			02/16/24 22:35	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

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)
880-38960-1	D-5 3-4'	65 S1-	101
880-38960-2	D-5 4-5'	78	88
880-38960-3	D-5 5-6'	79	101
880-38960-4	D-5 6-7'	86	92
880-38960-5	D-5 7-8'	72	90
880-38960-6	D-5 8-9'	83	82
880-38960-7	D-5 9-10'	86	92
880-38960-8	D-2 0-1'	88	95
880-38960-9	D-3 0-1'	86	83
880-38960-10	D-4 0-1'	126	101
880-38960-11	D-1 0-1'	108	92
880-38960-12	D-7 0-1'	109	92
880-38960-13	D-6 5.5-6.5	117	90
880-38960-14	D-6 6.5-7.5	114	90
LCS 880-73182/1-A	Lab Control Sample	152 S1+	99
LCS 880-73629/1-A	Lab Control Sample	99	124
LCS 880-73632/1-A	Lab Control Sample	101	94
LCSD 880-73182/2-A	Lab Control Sample Dup	114	94
LCSD 880-73629/2-A	Lab Control Sample Dup	104	114
LCSD 880-73632/2-A	Lab Control Sample Dup	122	102
MB 880-73182/5-A	Method Blank	79	92
MB 880-73222/5-A	Method Blank	82	94
MB 880-73629/5-A	Method Blank	67 S1-	102
MB 880-73632/5-A	Method Blank	125	107

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)
880-38960-1	D-5 3-4'	108	89
880-38960-2	D-5 4-5'	125	105
880-38960-3	D-5 5-6'	102	87
880-38960-4	D-5 6-7'	119	100
880-38960-5	D-5 7-8'	108	88
880-38960-6	D-5 8-9'	89	67 S1-
880-38960-7	D-5 9-10'	78	64 S1-
880-38960-8	D-2 0-1'	88	72
880-38960-9	D-3 0-1'	74	59 S1-
880-38960-10	D-4 0-1'	98	81
880-38960-11	D-1 0-1'	83	66 S1-
880-38960-12	D-7 0-1'	101	83
880-38960-13	D-6 5.5-6.5	95	79
880-38960-14	D-6 6.5-7.5	86	71
LCS 880-72497/2-A	Lab Control Sample	110	106

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-38960-1
Project/Site: Gravitas SDG: 22-0105-03

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCSD 880-72497/3-A	Lab Control Sample Dup	113	113								
MB 880-72497/1-A	Method Blank	191 S1+	167 S1+								

Surrogate Legend

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

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73182/5-A
Matrix: Solid
Analysis Batch: 73209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73182

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/14/24 15:51	02/15/24 21:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/14/24 15:51	02/15/24 21:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/14/24 15:51	02/15/24 21:55	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/14/24 15:51	02/15/24 21:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/14/24 15:51	02/15/24 21:55	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/14/24 15:51	02/15/24 21:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*02/14/24 15:51*	*02/15/24 21:55*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/14/24 15:51*	*02/15/24 21:55*	*1*

Lab Sample ID: LCS 880-73182/1-A
Matrix: Solid
Analysis Batch: 73209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73182

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08103		mg/Kg		81	70 - 130		
Toluene			0.100	0.1170		mg/Kg		117	70 - 130		
Ethylbenzene			0.100	0.1346	*+	mg/Kg		135	70 - 130		
m,p-Xylenes			0.200	0.3013	*+	mg/Kg		151	70 - 130		
o-Xylene			0.100	0.1527	*+	mg/Kg		153	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*152*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-73182/2-A
Matrix: Solid
Analysis Batch: 73209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73182

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1006		mg/Kg		101	70 - 130	22	35
Toluene			0.100	0.1125		mg/Kg		112	70 - 130	4	35
Ethylbenzene			0.100	0.1051		mg/Kg		105	70 - 130	25	35
m,p-Xylenes			0.200	0.2118		mg/Kg		106	70 - 130	35	35
o-Xylene			0.100	0.1074		mg/Kg		107	70 - 130	35	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: MB 880-73222/5-A
Matrix: Solid
Analysis Batch: 73209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73222

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 08:59	02/15/24 11:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 08:59	02/15/24 11:17	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-73222/5-A
Matrix: Solid
Analysis Batch: 73209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73222

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 08:59	02/15/24 11:17	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/15/24 08:59	02/15/24 11:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 08:59	02/15/24 11:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 08:59	02/15/24 11:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*02/15/24 08:59*	*02/15/24 11:17*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/15/24 08:59*	*02/15/24 11:17*	*1*

Lab Sample ID: MB 880-73629/5-A
Matrix: Solid
Analysis Batch: 73610

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73629

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/20/24 10:04	02/20/24 11:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/20/24 10:04	02/20/24 11:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/20/24 10:04	02/20/24 11:52	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/20/24 10:04	02/20/24 11:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/20/24 10:04	02/20/24 11:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/20/24 10:04	02/20/24 11:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*02/20/24 10:04*	*02/20/24 11:52*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/20/24 10:04*	*02/20/24 11:52*	*1*

Lab Sample ID: LCS 880-73629/1-A
Matrix: Solid
Analysis Batch: 73610

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73629

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09553		mg/Kg		96	70 - 130		
Toluene			0.100	0.08594		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.09011		mg/Kg		90	70 - 130		
m,p-Xylenes			0.200	0.1851		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.08909		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*

Lab Sample ID: LCSD 880-73629/2-A
Matrix: Solid
Analysis Batch: 73610

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73629

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09530		mg/Kg		95	70 - 130	0	35
Toluene			0.100	0.08625		mg/Kg		86	70 - 130	0	35
Ethylbenzene			0.100	0.09381		mg/Kg		94	70 - 130	4	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

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

Lab Sample ID: LCSD 880-73629/2-A
Matrix: Solid
Analysis Batch: 73610

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73629

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m,p-Xylenes			0.200	0.1905		mg/Kg		95	70 - 130	3	35
o-Xylene			0.100	0.09036		mg/Kg		90	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: MB 880-73632/5-A
Matrix: Solid
Analysis Batch: 73611

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73632

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/20/24 10:08	02/20/24 11:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/20/24 10:08	02/20/24 11:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/20/24 10:08	02/20/24 11:59	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/20/24 10:08	02/20/24 11:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/20/24 10:08	02/20/24 11:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/20/24 10:08	02/20/24 11:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*02/20/24 10:08*	*02/20/24 11:59*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/20/24 10:08*	*02/20/24 11:59*	*1*

Lab Sample ID: LCS 880-73632/1-A
Matrix: Solid
Analysis Batch: 73611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73632

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1119		mg/Kg		112	70 - 130		
Toluene			0.100	0.1027		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.1143		mg/Kg		114	70 - 130		
m,p-Xylenes			0.200	0.2139		mg/Kg		107	70 - 130		
o-Xylene			0.100	0.1033		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 880-73632/2-A
Matrix: Solid
Analysis Batch: 73611

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73632

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1195		mg/Kg		119	70 - 130	7	35
Toluene			0.100	0.1021		mg/Kg		102	70 - 130	1	35
Ethylbenzene			0.100	0.1227		mg/Kg		123	70 - 130	7	35
m,p-Xylenes			0.200	0.2610	*+	mg/Kg		131	70 - 130	20	35
o-Xylene			0.100	0.1213		mg/Kg		121	70 - 130	16	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

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

Lab Sample ID: MB 880-72497/1-A
Matrix: Solid
Analysis Batch: 72812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72497

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		02/06/24 12:29	02/11/24 07:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/06/24 12:29	02/11/24 07:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/06/24 12:29	02/11/24 07:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	191	S1+	70 - 130	02/06/24 12:29	02/11/24 07:47	1
o-Terphenyl (Surr)	167	S1+	70 - 130	02/06/24 12:29	02/11/24 07:47	1

Lab Sample ID: LCS 880-72497/2-A
Matrix: Solid
Analysis Batch: 72812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72497

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1015		mg/Kg		102	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	951.7		mg/Kg		95	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	110		70 - 130
o-Terphenyl (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-72497/3-A
Matrix: Solid
Analysis Batch: 72812

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72497

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1028		mg/Kg		103	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	992.5		mg/Kg		99	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	113		70 - 130
o-Terphenyl (Surr)	113		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-72576/1-A
Matrix: Solid
Analysis Batch: 72643

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			02/09/24 02:04	1

Lab Sample ID: LCS 880-72576/2-A
Matrix: Solid
Analysis Batch: 72643

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.8		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-72576/3-A
Matrix: Solid
Analysis Batch: 72643

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	258.3		mg/Kg		103	90 - 110	1	20

Lab Sample ID: 880-38960-1 MS
Matrix: Solid
Analysis Batch: 72643

Client Sample ID: D-5 3-4'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	8900		2510	11350		mg/Kg		98	90 - 110		

Lab Sample ID: 880-38960-1 MSD
Matrix: Solid
Analysis Batch: 72643

Client Sample ID: D-5 3-4'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8900		2510	11300		mg/Kg		96	90 - 110	0	20

Lab Sample ID: 880-38960-11 MS
Matrix: Solid
Analysis Batch: 72643

Client Sample ID: D-1 0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	732		2510	3103		mg/Kg		95	90 - 110		

Lab Sample ID: 880-38960-11 MSD
Matrix: Solid
Analysis Batch: 72643

Client Sample ID: D-1 0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	732		2510	3115		mg/Kg		95	90 - 110	0	20

Lab Sample ID: MB 880-73247/1-A
Matrix: Solid
Analysis Batch: 73282

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			02/16/24 12:33	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 880-73247/2-A
Matrix: Solid
Analysis Batch: 73282

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	256.0		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-73247/3-A
Matrix: Solid
Analysis Batch: 73282

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	256.9		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 880-38960-1 MS
Matrix: Solid
Analysis Batch: 73282

Client Sample ID: D-5 3-4'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	11300		5040	16550		mg/Kg		104	90 - 110		

Lab Sample ID: 880-38960-1 MSD
Matrix: Solid
Analysis Batch: 73282

Client Sample ID: D-5 3-4'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11300		5040	16730		mg/Kg		108	90 - 110	1	20

Lab Sample ID: 880-38960-11 MS
Matrix: Solid
Analysis Batch: 73282

Client Sample ID: D-1 0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	97.2		250	326.5		mg/Kg		92	90 - 110		

Lab Sample ID: 880-38960-11 MSD
Matrix: Solid
Analysis Batch: 73282

Client Sample ID: D-1 0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	97.2		250	325.0		mg/Kg		91	90 - 110	0	20

Lab Sample ID: MB 880-73473/1-A
Matrix: Solid
Analysis Batch: 73579

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			02/19/24 20:23	1

Lab Sample ID: LCS 880-73473/2-A
Matrix: Solid
Analysis Batch: 73579

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	244.5		mg/Kg		98	90 - 110		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-73473/3-A
Matrix: Solid
Analysis Batch: 73579

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	245.0		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 880-38960-7 MS
Matrix: Solid
Analysis Batch: 73579

Client Sample ID: D-5 9-10'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	337		249	571.6		mg/Kg		94	90 - 110		

Lab Sample ID: 880-38960-7 MSD
Matrix: Solid
Analysis Batch: 73579

Client Sample ID: D-5 9-10'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	337		249	574.3		mg/Kg		95	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

GC VOA

Prep Batch: 73182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-11	D-1 0-1'	Total/NA	Solid	5035	
880-38960-12	D-7 0-1'	Total/NA	Solid	5035	
880-38960-13	D-6 5.5-6.5	Total/NA	Solid	5035	
880-38960-14	D-6 6.5-7.5	Total/NA	Solid	5035	
MB 880-73182/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73182/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73182/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 73209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-11	D-1 0-1'	Total/NA	Solid	8021B	73182
880-38960-12	D-7 0-1'	Total/NA	Solid	8021B	73182
880-38960-13	D-6 5.5-6.5	Total/NA	Solid	8021B	73182
880-38960-14	D-6 6.5-7.5	Total/NA	Solid	8021B	73182
MB 880-73182/5-A	Method Blank	Total/NA	Solid	8021B	73182
MB 880-73222/5-A	Method Blank	Total/NA	Solid	8021B	73222
LCS 880-73182/1-A	Lab Control Sample	Total/NA	Solid	8021B	73182
LCSD 880-73182/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73182

Prep Batch: 73222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73222/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 73367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-1	D-5 3-4'	Total/NA	Solid	Total BTEX	
880-38960-2	D-5 4-5'	Total/NA	Solid	Total BTEX	
880-38960-3	D-5 5-6'	Total/NA	Solid	Total BTEX	
880-38960-4	D-5 6-7'	Total/NA	Solid	Total BTEX	
880-38960-5	D-5 7-8'	Total/NA	Solid	Total BTEX	
880-38960-6	D-5 8-9'	Total/NA	Solid	Total BTEX	
880-38960-7	D-5 9-10'	Total/NA	Solid	Total BTEX	
880-38960-8	D-2 0-1'	Total/NA	Solid	Total BTEX	
880-38960-9	D-3 0-1'	Total/NA	Solid	Total BTEX	
880-38960-10	D-4 0-1'	Total/NA	Solid	Total BTEX	
880-38960-11	D-1 0-1'	Total/NA	Solid	Total BTEX	
880-38960-12	D-7 0-1'	Total/NA	Solid	Total BTEX	
880-38960-13	D-6 5.5-6.5	Total/NA	Solid	Total BTEX	
880-38960-14	D-6 6.5-7.5	Total/NA	Solid	Total BTEX	

Analysis Batch: 73610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-1	D-5 3-4'	Total/NA	Solid	8021B	73629
880-38960-2	D-5 4-5'	Total/NA	Solid	8021B	73629
880-38960-3	D-5 5-6'	Total/NA	Solid	8021B	73629
880-38960-4	D-5 6-7'	Total/NA	Solid	8021B	73629
880-38960-5	D-5 7-8'	Total/NA	Solid	8021B	73629
880-38960-6	D-5 8-9'	Total/NA	Solid	8021B	73629
880-38960-7	D-5 9-10'	Total/NA	Solid	8021B	73629
880-38960-8	D-2 0-1'	Total/NA	Solid	8021B	73629
880-38960-9	D-3 0-1'	Total/NA	Solid	8021B	73629

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

GC VOA (Continued)

Analysis Batch: 73610 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73629/5-A	Method Blank	Total/NA	Solid	8021B	73629
LCS 880-73629/1-A	Lab Control Sample	Total/NA	Solid	8021B	73629
LCSD 880-73629/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73629

Analysis Batch: 73611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-10	D-4 0-1'	Total/NA	Solid	8021B	73632
MB 880-73632/5-A	Method Blank	Total/NA	Solid	8021B	73632
LCS 880-73632/1-A	Lab Control Sample	Total/NA	Solid	8021B	73632
LCSD 880-73632/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73632

Prep Batch: 73629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-1	D-5 3-4'	Total/NA	Solid	5035	
880-38960-2	D-5 4-5'	Total/NA	Solid	5035	
880-38960-3	D-5 5-6'	Total/NA	Solid	5035	
880-38960-4	D-5 6-7'	Total/NA	Solid	5035	
880-38960-5	D-5 7-8'	Total/NA	Solid	5035	
880-38960-6	D-5 8-9'	Total/NA	Solid	5035	
880-38960-7	D-5 9-10'	Total/NA	Solid	5035	
880-38960-8	D-2 0-1'	Total/NA	Solid	5035	
880-38960-9	D-3 0-1'	Total/NA	Solid	5035	
MB 880-73629/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73629/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73629/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 73632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-10	D-4 0-1'	Total/NA	Solid	5035	
MB 880-73632/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73632/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73632/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 72497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-1	D-5 3-4'	Total/NA	Solid	8015NM Prep	
880-38960-2	D-5 4-5'	Total/NA	Solid	8015NM Prep	
880-38960-3	D-5 5-6'	Total/NA	Solid	8015NM Prep	
880-38960-4	D-5 6-7'	Total/NA	Solid	8015NM Prep	
880-38960-5	D-5 7-8'	Total/NA	Solid	8015NM Prep	
880-38960-6	D-5 8-9'	Total/NA	Solid	8015NM Prep	
880-38960-7	D-5 9-10'	Total/NA	Solid	8015NM Prep	
880-38960-8	D-2 0-1'	Total/NA	Solid	8015NM Prep	
880-38960-9	D-3 0-1'	Total/NA	Solid	8015NM Prep	
880-38960-10	D-4 0-1'	Total/NA	Solid	8015NM Prep	
880-38960-11	D-1 0-1'	Total/NA	Solid	8015NM Prep	
880-38960-12	D-7 0-1'	Total/NA	Solid	8015NM Prep	
880-38960-13	D-6 5.5-6.5	Total/NA	Solid	8015NM Prep	
880-38960-14	D-6 6.5-7.5	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Prep Batch: 72497 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-72497/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72497/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72497/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 72812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-1	D-5 3-4'	Total/NA	Solid	8015B NM	72497
880-38960-2	D-5 4-5'	Total/NA	Solid	8015B NM	72497
880-38960-3	D-5 5-6'	Total/NA	Solid	8015B NM	72497
880-38960-4	D-5 6-7'	Total/NA	Solid	8015B NM	72497
880-38960-5	D-5 7-8'	Total/NA	Solid	8015B NM	72497
880-38960-6	D-5 8-9'	Total/NA	Solid	8015B NM	72497
880-38960-7	D-5 9-10'	Total/NA	Solid	8015B NM	72497
880-38960-8	D-2 0-1'	Total/NA	Solid	8015B NM	72497
880-38960-9	D-3 0-1'	Total/NA	Solid	8015B NM	72497
880-38960-10	D-4 0-1'	Total/NA	Solid	8015B NM	72497
880-38960-11	D-1 0-1'	Total/NA	Solid	8015B NM	72497
880-38960-12	D-7 0-1'	Total/NA	Solid	8015B NM	72497
880-38960-13	D-6 5.5-6.5	Total/NA	Solid	8015B NM	72497
880-38960-14	D-6 6.5-7.5	Total/NA	Solid	8015B NM	72497
MB 880-72497/1-A	Method Blank	Total/NA	Solid	8015B NM	72497
LCS 880-72497/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72497
LCSD 880-72497/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72497

Analysis Batch: 72965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-1	D-5 3-4'	Total/NA	Solid	8015 NM	
880-38960-2	D-5 4-5'	Total/NA	Solid	8015 NM	
880-38960-3	D-5 5-6'	Total/NA	Solid	8015 NM	
880-38960-4	D-5 6-7'	Total/NA	Solid	8015 NM	
880-38960-5	D-5 7-8'	Total/NA	Solid	8015 NM	
880-38960-6	D-5 8-9'	Total/NA	Solid	8015 NM	
880-38960-7	D-5 9-10'	Total/NA	Solid	8015 NM	
880-38960-8	D-2 0-1'	Total/NA	Solid	8015 NM	
880-38960-9	D-3 0-1'	Total/NA	Solid	8015 NM	
880-38960-10	D-4 0-1'	Total/NA	Solid	8015 NM	
880-38960-11	D-1 0-1'	Total/NA	Solid	8015 NM	
880-38960-12	D-7 0-1'	Total/NA	Solid	8015 NM	
880-38960-13	D-6 5.5-6.5	Total/NA	Solid	8015 NM	
880-38960-14	D-6 6.5-7.5	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 72576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-1	D-5 3-4'	Soluble	Solid	DI Leach	
880-38960-2	D-5 4-5'	Soluble	Solid	DI Leach	
880-38960-3	D-5 5-6'	Soluble	Solid	DI Leach	
880-38960-4	D-5 6-7'	Soluble	Solid	DI Leach	
880-38960-5	D-5 7-8'	Soluble	Solid	DI Leach	
MB 880-72576/1-A	Method Blank	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

HPLC/IC (Continued)

Leach Batch: 72576 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-72576/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72576/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-38960-1 MS	D-5 3-4'	Soluble	Solid	DI Leach	
880-38960-1 MSD	D-5 3-4'	Soluble	Solid	DI Leach	
880-38960-11 MS	D-1 0-1'	Soluble	Solid	DI Leach	
880-38960-11 MSD	D-1 0-1'	Soluble	Solid	DI Leach	

Analysis Batch: 72643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-1	D-5 3-4'	Soluble	Solid	300.0	72576
880-38960-2	D-5 4-5'	Soluble	Solid	300.0	72576
880-38960-3	D-5 5-6'	Soluble	Solid	300.0	72576
880-38960-4	D-5 6-7'	Soluble	Solid	300.0	72576
880-38960-5	D-5 7-8'	Soluble	Solid	300.0	72576
MB 880-72576/1-A	Method Blank	Soluble	Solid	300.0	72576
LCS 880-72576/2-A	Lab Control Sample	Soluble	Solid	300.0	72576
LCSD 880-72576/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72576
880-38960-1 MS	D-5 3-4'	Soluble	Solid	300.0	72576
880-38960-1 MSD	D-5 3-4'	Soluble	Solid	300.0	72576
880-38960-11 MS	D-1 0-1'	Soluble	Solid	300.0	72576
880-38960-11 MSD	D-1 0-1'	Soluble	Solid	300.0	72576

Leach Batch: 73247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-6	D-5 8-9'	Soluble	Solid	DI Leach	
880-38960-7	D-5 9-10'	Soluble	Solid	DI Leach	
880-38960-8	D-2 0-1'	Soluble	Solid	DI Leach	
880-38960-9	D-3 0-1'	Soluble	Solid	DI Leach	
880-38960-10	D-4 0-1'	Soluble	Solid	DI Leach	
880-38960-11	D-1 0-1'	Soluble	Solid	DI Leach	
880-38960-12	D-7 0-1'	Soluble	Solid	DI Leach	
880-38960-13	D-6 5.5-6.5	Soluble	Solid	DI Leach	
880-38960-14	D-6 6.5-7.5	Soluble	Solid	DI Leach	
MB 880-73247/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73247/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73247/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-38960-1 MS	D-5 3-4'	Soluble	Solid	DI Leach	
880-38960-1 MSD	D-5 3-4'	Soluble	Solid	DI Leach	
880-38960-11 MS	D-1 0-1'	Soluble	Solid	DI Leach	
880-38960-11 MSD	D-1 0-1'	Soluble	Solid	DI Leach	

Analysis Batch: 73282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-6	D-5 8-9'	Soluble	Solid	300.0	73247
880-38960-7	D-5 9-10'	Soluble	Solid	300.0	73247
880-38960-8	D-2 0-1'	Soluble	Solid	300.0	73247
880-38960-9	D-3 0-1'	Soluble	Solid	300.0	73247
880-38960-10	D-4 0-1'	Soluble	Solid	300.0	73247
880-38960-11	D-1 0-1'	Soluble	Solid	300.0	73247
880-38960-12	D-7 0-1'	Soluble	Solid	300.0	73247
880-38960-13	D-6 5.5-6.5	Soluble	Solid	300.0	73247

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

HPLC/IC (Continued)

Analysis Batch: 73282 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38960-14	D-6 6.5-7.5	Soluble	Solid	300.0	73247
MB 880-73247/1-A	Method Blank	Soluble	Solid	300.0	73247
LCS 880-73247/2-A	Lab Control Sample	Soluble	Solid	300.0	73247
LCSD 880-73247/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73247
880-38960-1 MS	D-5 3-4'	Soluble	Solid	300.0	73247
880-38960-1 MSD	D-5 3-4'	Soluble	Solid	300.0	73247
880-38960-11 MS	D-1 0-1'	Soluble	Solid	300.0	73247
880-38960-11 MSD	D-1 0-1'	Soluble	Solid	300.0	73247

Leach Batch: 73473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73473/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73473/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73473/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-38960-7 MS	D-5 9-10'	Soluble	Solid	DI Leach	
880-38960-7 MSD	D-5 9-10'	Soluble	Solid	DI Leach	

Analysis Batch: 73579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73473/1-A	Method Blank	Soluble	Solid	300.0	73473
LCS 880-73473/2-A	Lab Control Sample	Soluble	Solid	300.0	73473
LCSD 880-73473/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73473
880-38960-7 MS	D-5 9-10'	Soluble	Solid	300.0	73473
880-38960-7 MSD	D-5 9-10'	Soluble	Solid	300.0	73473

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-5 3-4'
Date Collected: 02/02/24 10:40
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73629	02/20/24 10:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73610	02/20/24 14:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/20/24 14:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 13:18	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 13:18	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72576	02/07/24 12:49	SMC	EET MID
Soluble	Analysis	300.0		10			72643	02/09/24 02:24	CH	EET MID

Client Sample ID: D-5 4-5'
Date Collected: 02/02/24 10:47
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-2
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	73629	02/20/24 10:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73610	02/20/24 16:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/20/24 16:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 13:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 13:40	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	72576	02/07/24 12:49	SMC	EET MID
Soluble	Analysis	300.0		20			72643	02/09/24 02:45	CH	EET MID

Client Sample ID: D-5 5-6'
Date Collected: 02/02/24 10:55
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73629	02/20/24 10:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73610	02/20/24 17:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/20/24 17:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 14:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 14:02	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72576	02/07/24 12:49	SMC	EET MID
Soluble	Analysis	300.0		20			72643	02/09/24 02:52	CH	EET MID

Client Sample ID: D-5 6-7'
Date Collected: 02/02/24 11:15
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-4
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	73629	02/20/24 10:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73610	02/20/24 17:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/20/24 17:31	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-5 6-7'
Date Collected: 02/02/24 11:15
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-4
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			72965	02/11/24 14:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 14:24	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72576	02/07/24 12:49	SMC	EET MID
Soluble	Analysis	300.0		20			72643	02/09/24 02:58	CH	EET MID

Client Sample ID: D-5 7-8'
Date Collected: 02/02/24 11:26
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-5
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			4.95 g	5 mL	73629	02/20/24 10:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73610	02/20/24 17:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/20/24 17:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 15:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 15:08	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	72576	02/07/24 12:49	SMC	EET MID
Soluble	Analysis	300.0		10			72643	02/09/24 03:05	CH	EET MID

Client Sample ID: D-5 8-9'
Date Collected: 02/02/24 11:45
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-6
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			4.98 g	5 mL	73629	02/20/24 10:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73610	02/20/24 18:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/20/24 18:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 15:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 15:31	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73247	02/15/24 11:42	SMC	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	73282	02/16/24 13:54	CH	EET MID

Client Sample ID: D-5 9-10'
Date Collected: 02/02/24 12:04
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-7
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			4.96 g	5 mL	73629	02/20/24 10:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73610	02/20/24 18:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/20/24 18:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 15:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 15:54	SM	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-5 9-10'
Date Collected: 02/02/24 12:04
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-7
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			4.96 g	50 mL	73247	02/15/24 11:42	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73282	02/16/24 21:20	CH	EET MID

Client Sample ID: D-2 0-1'
Date Collected: 02/02/24 12:32
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-8
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			5.03 g	5 mL	73629	02/20/24 10:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73610	02/20/24 18:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/20/24 18:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 16:17	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 16:17	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73247	02/15/24 11:42	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73282	02/16/24 21:27	CH	EET MID

Client Sample ID: D-3 0-1'
Date Collected: 02/02/24 12:54
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-9
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	73629	02/20/24 10:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73610	02/20/24 19:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/20/24 19:15	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 16:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 16:40	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73247	02/15/24 11:42	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73282	02/16/24 21:34	CH	EET MID

Client Sample ID: D-4 0-1'
Date Collected: 02/02/24 13:15
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-10
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	73632	02/20/24 10:08	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/20/24 18:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/20/24 18:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 17:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 17:02	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73247	02/15/24 11:42	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73282	02/16/24 21:40	CH	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-1 0-1'
Date Collected: 02/05/24 10:55
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73182	02/14/24 15:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73209	02/16/24 04:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/16/24 04:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 17:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 17:25	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73247	02/15/24 11:42	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73282	02/16/24 21:47	CH	EET MID

Client Sample ID: D-7 0-1'
Date Collected: 02/05/24 11:07
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73182	02/14/24 15:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73209	02/16/24 04:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/16/24 04:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 17:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 17:47	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73247	02/15/24 11:42	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73282	02/16/24 22:07	CH	EET MID

Client Sample ID: D-6 5.5-6.5
Date Collected: 02/05/24 11:32
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	73182	02/14/24 15:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73209	02/16/24 04:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/16/24 04:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			72965	02/11/24 18:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 18:09	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73247	02/15/24 11:42	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73282	02/16/24 22:14	CH	EET MID

Client Sample ID: D-6 6.5-7.5
Date Collected: 02/05/24 12:02
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73182	02/14/24 15:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73209	02/16/24 05:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73367	02/16/24 05:09	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Client Sample ID: D-6 6.5-7.5

Date Collected: 02/05/24 12:02
Date Received: 02/06/24 09:19

Lab Sample ID: 880-38960-14

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			72965	02/11/24 18:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72497	02/06/24 12:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 18:32	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73247	02/15/24 11:42	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73282	02/16/24 22:35	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

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	T104704400-23-26	06-30-24

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: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

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

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas

Job ID: 880-38960-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-38960-1	D-5 3-4'	Solid	02/02/24 10:40	02/06/24 09:19
880-38960-2	D-5 4-5'	Solid	02/02/24 10:47	02/06/24 09:19
880-38960-3	D-5 5-6'	Solid	02/02/24 10:55	02/06/24 09:19
880-38960-4	D-5 6-7'	Solid	02/02/24 11:15	02/06/24 09:19
880-38960-5	D-5 7-8'	Solid	02/02/24 11:26	02/06/24 09:19
880-38960-6	D-5 8-9'	Solid	02/02/24 11:45	02/06/24 09:19
880-38960-7	D-5 9-10'	Solid	02/02/24 12:04	02/06/24 09:19
880-38960-8	D-2 0-1'	Solid	02/02/24 12:32	02/06/24 09:19
880-38960-9	D-3 0-1'	Solid	02/02/24 12:54	02/06/24 09:19
880-38960-10	D-4 0-1'	Solid	02/02/24 13:15	02/06/24 09:19
880-38960-11	D-1 0-1'	Solid	02/05/24 10:55	02/06/24 09:19
880-38960-12	D-7 0-1'	Solid	02/05/24 11:07	02/06/24 09:19
880-38960-13	D-6 5.5-6.5	Solid	02/05/24 11:32	02/06/24 09:19
880-38960-14	D-6 6.5-7.5	Solid	02/05/24 12:02	02/06/24 09:19

Released to Imaging: 5/31/2024 3:12:53 PM
Received by OCD: 5/8/2024 2:07:46 PM

38960

No. 3050

CHAIN-OF-CUSTODY

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

DATE 2/5/2024 PAGE 1 OF 1

PO# _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME Gramitas

LAI PROJECT # 22-0105-03 COLLECTOR DS/RN

Data Reported to Mark Larson / Robert Nelson

TRRP report? ☐ Yes ☑ No

TIME ZONE Time zone/State: MNT/NM

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

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

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

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESSERVED	BTEX	TRPH	GASOLINE MOD 8015	DIESEL - MOD 8015	TCLP - METALS (RCRA)	TOTAL METALS (RCRA)	LEAD - TOTAL	TDS	pH	CHLORIDE	FIELD NOTES
D-S 3-4'		2/2/24	1040	S	1				X		X		X	X	X					X	
D S 4-5'			1047																		
D S 5-6'			1055																		
D-S 6-7'			1115																		
D S 7-8'			1126																		
D-S 8-9'			1145																		
D-S 9-10'			1204																		
D-2 0-1			1232																		
D-3 0-1			1254																		
D-4 0-1			1315																		
D-1 0-1		2/5/24	1055																		
D-7 0-1			1107																		
D-6 5.5-6.5			1132																		
D-6 6.5-7.5			1202																		

TOTAL 14

880-38960 Chain of Custody

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
[signature]	2/6 919	[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 2.3/2.2 THERM# IR8 -10
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-38960-1
SDG Number: 22-0105-03

Login Number: 38960
List Number: 1
Creator: Wheeler, Jazmine

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	

Appendix F

Photographic Documentation

Gravitas SWD, viewing to the northwest.

Impacted soil on the pad, viewing to the west.

Impacted soil on the pad, near transfer and electric lines, viewing to the south.

Impacted soil on pad, near transfer lines, viewing to the east.

Impacted soil on pad, near transfer pumps, viewing to the north.

Impacted soil on the pad, near transfer pumps and lines, viewing to the west.

Impacted soil on the pad, near transfer lines, viewing to the north.

Impacted soil on the pad, near transfer lines, viewing to the south.

Impacted soil on the pad, near transfer and electric lines, viewing to the west.

Impacted soil on the pad, near transfer lines, viewing to the south.

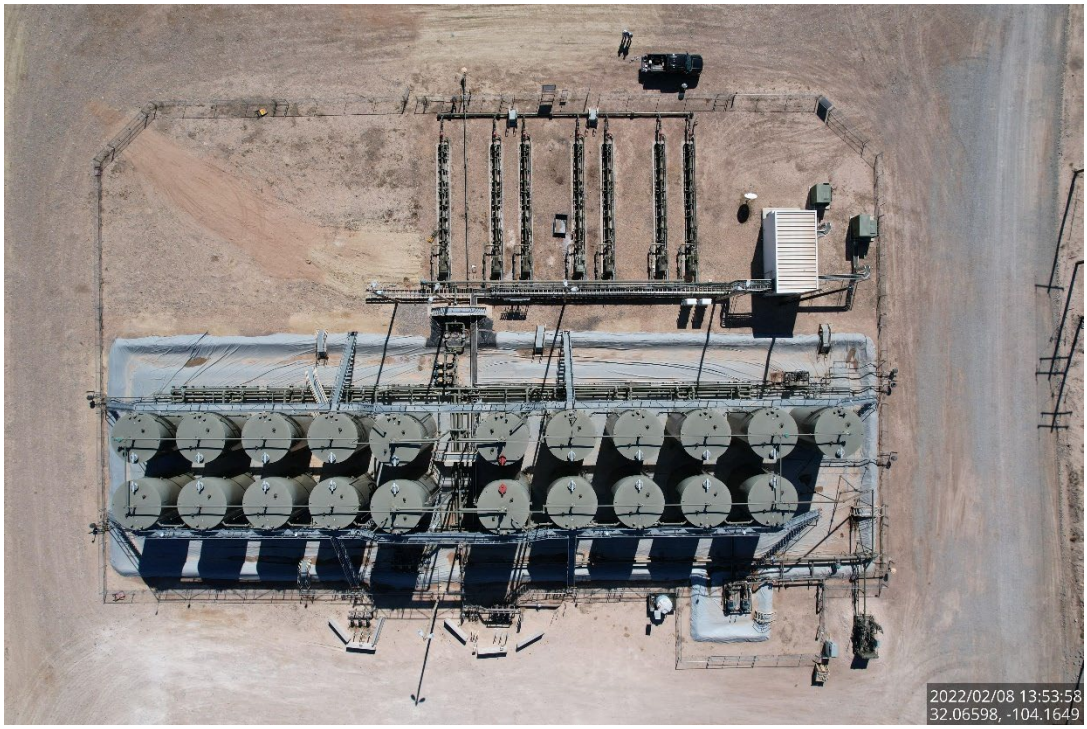
Impacted soil on the pad, near transfer lines, viewing to the north.

Impacted soil on the pad, near transfer pumps, viewing to the north.

Impacted soil on the pad, near transfer pumps, viewing to the northeast.

Impacted soil on the pad, near transfer lines, viewing to the northwest.

Impacted soil on the pad, near transfer lines, viewing to the south.



Aerial image of impacted soil on the pad, vertical view.

Aerial image of impacted soil on the pad, vertical view.

Aerial image of impacted soil on the pad, viewing to the north.

Aerial image of impacted soil on the pad, vertical view.

Excavated area on the pad, near transfer lines and pumps, viewing to the northwest.

Excavated area on the pad, near transfer line supports, viewing to the west.

Excavated area on the pad, near transfer pumps, viewing to the north.

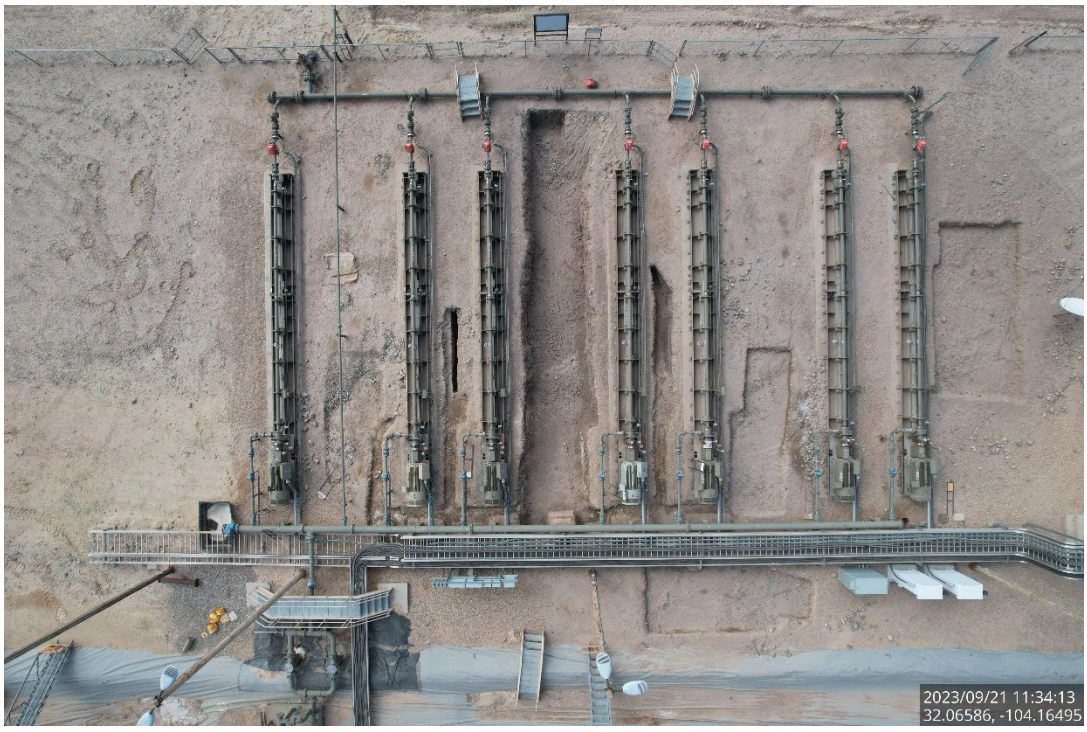
Excavated area on the pad, near a transfer line support, viewing to the northwest.

Excavated area on the pad, near transfer and electrical line supports, viewing to the east.

Excavated area on the pad, near transfer pumps and lines, viewing to the west.

Aerial image of excavation, viewing to the north.

Aerial image of the excavation, viewing to the south.



Aerial image of the excavation, vertical view.

Aerial image of the excavation, vertical view.

Aerial image of the excavation, viewing to the north.

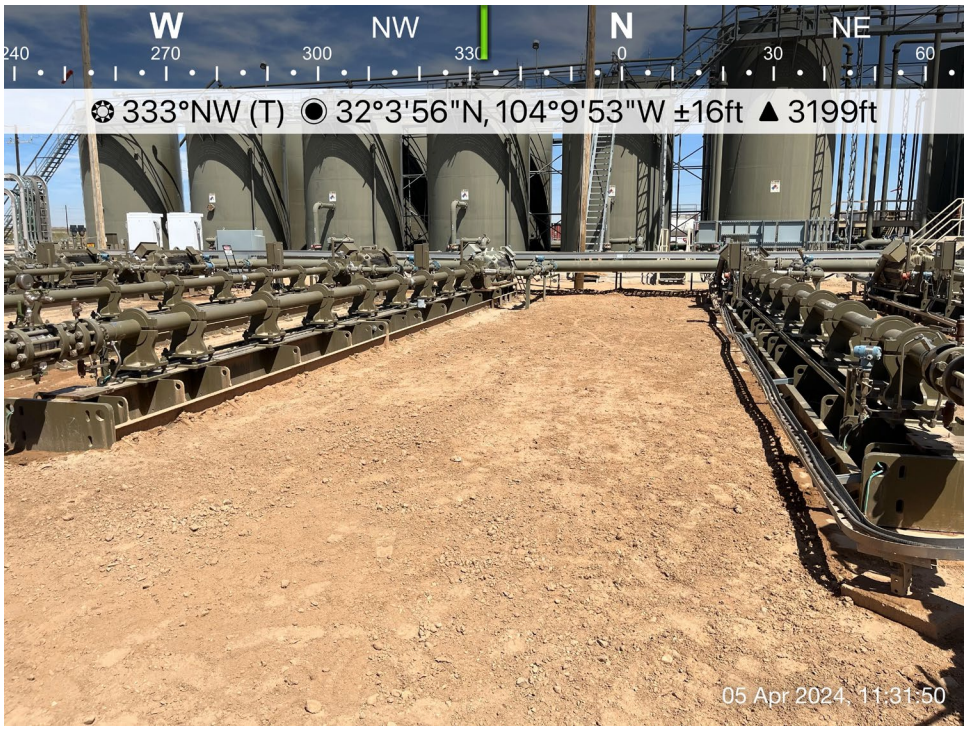
Aerial image of the excavation, viewing to the north.

Aerial image of the excavation, viewing to the north.

Aerial image of the excavation, viewing to the north.

Aerial image of the excavation, vertical view.

Backfilled excavation viewing north



Backfilled excavation viewing northwest

Backfilled excavation viewing north

Backfilled excavation viewing north

Backfilled excavation viewing east

Backfilled excavation viewing southeast

Backfilled excavation viewing east

Backfilled excavation viewing west

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QUESTIONS

Action 342109

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 342109
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2202552560**
Incident Name	**NAPP2202552560 GRAVITAS SWD 2 @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Deferral Request Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	GRAVITAS SWD 2
Date Release Discovered	01/23/2022
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Corrosion | Valve | Produced Water | Released: 15 BBL | Recovered: 0 BBL | Lost: 15 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
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	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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.

I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 05/08/2024

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 342109
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Less than or equal 25 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	15900
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	10/01/2022
On what date will (or did) the final sampling or liner inspection occur	02/05/2024
On what date will (or was) the remediation complete(d)	03/11/2024
What is the estimated surface area (in square feet) that will be reclaimed	2311
What is the estimated volume (in cubic yards) that will be reclaimed	148
What is the estimated surface area (in square feet) that will be remediated	2311
What is the estimated volume (in cubic yards) that will be remediated	148
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 342109
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	R360 Artesia LLC LANDFARM [fEEM0112340644]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 05/08/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 342109
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	H-Pumps and Piping. Structures are intact.
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	987
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	40
Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	
Enter the facility ID (f#) on which this deferral should be granted	*Not answered.*
Enter the well API (30-) on which this deferral should be granted	30-015-43892 GRAVITAS 2 STATE SWD #002
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 05/08/2024

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 342109
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**342150**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**02/05/2024**
What was the (estimated) number of samples that were to be gathered	**12**
What was the sampling surface area in square feet	**2311**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 342109

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
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CONDITIONS

Created By	Condition	Condition Date
nvelez	Deferral is approved. Remediation Due date will be left open until the site has been plugged and abandoned or a major facility deconstruction takes place.	5/31/2024