# Tracking Number: nAB1902541117/nAB1906052173/nAB1909160291
# Remediation and Closure Report
# Culebra Bluff SE 5 32 Fed Com 3
# Brine Water, Oil Based Drilling Mud and Diesel Fuel Releases
## Eddy County, New Mexico

Latitude: N 32.240410°
Longitude: W -104.010122°

LAI Project No. 19-0180-07

April 26, 2024

Prepared for:
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# 1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this closure report on behalf of Chevron USA Inc. (Chevron) for submittal to the New Mexico Oil Conservation Division (OCD) District II for diesel-based mud, brine water and oil-based mud releases at the Culebra Bluff SE 5 32 Fed Com 3 (Site) located in Unit N (SE/4, SW/4), Section 5, Township 24 South, Range 29 East in Eddy County New Mexico. The geodetic position is North 32.240410° and West -104.010122°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

## *1.1 Background*

The diesel-based mud release (nAB1902541117) was discovered on January 10, 2019, due to a 3" transfer hose swedge fitting popping out and causing a release to secondary containment (lined drill pad). Chevron reported that approximately 16 barrels (bbls) of water and diesel-based mud were released with 16 bbls recovered. The affected area measured approximately 873 square feet. The initial C-141 was submitted to the NMOCD District II on January 24, 2019.

The brine water release (nAB1906052173) was discovered on February 1, 2019, due to a tank overfilling while transferring brine water from a vacuum truck to a storage tank. Chevron reported that approximately 10 bbls of brine water was released, with 7 bbls recovered. The affected area measured approximately 857 square feet. The initial C-141 was submitted to the NMOCD District II on February 21, 2019.

The oil based mud release (nAB1909160291) was discovered on February 20, 2019, due to the cuttings box door not being properly secured, which resulted in 27.30 bbls of oil-based mud being released to the secondary containment (lined drill pad). Chevron reported that 27.30 bbls of oil-based mud was recovered. The affected area measured approximately 1,157 square feet. The initial C-141 was submitted to the NMOCD District II on February 26, 2019. Appendix A presents the C-141's for the three (3) releases (nAB1902541117/nAB1906052173/nAB1909160291).

## *1.2 Physical Setting*

The physical setting is as follows:

- The surface elevation is approximately 3,017 feet above mean sea level (msl).
- The surface topography decreases to the west.
- There are no surface water features within 1,000 feet of the Site.
- Karst data provided by the USGS describes the site as "Medium Risk" potential.
- The soils are designated as "Upton gravelly loam, 0 to 9 percent slopes", consisting of 0 to 13 inches of gravelly loam, underlain by 13 to 21 inches of cemented material, and 21 to 60 inches of very gravelly loam, in descending order.
- The geology consists of Piedmont alluvial deposits (Holocene to lower Pleistocene) and may locally include uppermost Pliocene deposits.
- Groundwater occurs at approximately 70.30 feet below ground surface (bgs) based on depth to groundwater measurements 72 hours after installing a boring (GWB-1) on November 23, 2020.

Appendix B presents the karst risk potential map. Appendix C presents the GWB-1 boring log. Figure 3 presents an aerial map showing the water well locations.

### *1.3 Remediation Action Levels*

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

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 2,500 mg/Kg
- Chloride 10,000 mg/Kg

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

## 2.0 DELINEATION

On November 18, 2019, LAI personnel used a stainless-steel hand auger to collect surface soil samples from twenty-three (23) locations inside and outside of the spill areas (S-1 through S-23). The samples were collected from 0 to 0.5 foot bgs. The soil samples were delivered under chain of custody (COC) and preservation to Permian Basin Environmental Laboratory (PBEL) in Midland, Texas. The laboratory analyzed the samples for benzene, toluene, ethylbenzene and xylenes (BTEX) and total petroleum hydrocarbons (TPH), including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35), and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively. Benzene and BTEX were reported below the remediation action levels of 10 milligrams per kilogram (mg/Kg) and 50 mg/Kg, respectively, in all samples. TPH was reported above the remediation action level (100 mg/Kg) in the following samples:

S-2 (14,500 mg/Kg)
S-3 (236 mg/Kg)
S-4 (3,260 mg/Kg)
S-5 (198 mg/Kg)
S-6 (527 mg/Kg)
S-7 (330 mg/Kg)
S-8 (113 mg/Kg
S-9 (265 mg/Kg)
S-10 (194 mg/Kg)
S-11 (229 mg/Kg)
S-12 (575 mg/Kg)
S-13 (545 mg/Kg)
S-15 (1,610 mg/Kg)
S-16 (27,500 mg/Kg)
S-17 (1,570 mg/Kg)
S-18 (504 mg/Kg)
S-19 (458 mg/Kg)
S-20 (5,340 mg/Kg)
S-21 (16,500 mg/Kg)
S-22 (12,000 mg/Kg)

Chloride was reported above the remediation standard (600 mg/Kg) in the following samples:

S-1 (3,790 mg/Kg)
S-2 (1,790 mg/Kg)
S-3 (1,540 mg/Kg)
S-5 (1,610 mg/Kg)
S-6 (5,550 mg/Kg)
S-7 (7,130 mg/Kg)

| | |
|---|---|
| S-4 (6,770 mg/Kg) | S-8 (2,940 mg/Kg) |
| S-9 (6,350 mg/Kg) | S-16 (7,360 mg/Kg) |
| S-10 (5,120 mg/Kg) | S-17 (10,700 mg/Kg) |
| S-11 (1,160 mg/Kg) | S-18 (7,090 mg/Kg) |
| S-12 (1,330 mg/Kg) | S-19 (1,120 mg/Kg) |
| S-13 (3,720 mg/Kg) | S-20 (5,590 mg/Kg) |
| S-14 (640 mg/kg) | S-21 (4,720 mg/Kg) |
| S-15 (2,520 mg/Kg) | S-22 (3,270 mg/Kg) |

On December 17, 2019, LAI personnel used the Geoprobe 7822DT direct push rig to vertically delineate the above-mentioned sample locations. Soil samples were collected at five (5) and seven (7) feet bg s depending on subsurface conditions. During this sampling event, two (2) additional sample locations (S-24 and S-25) were added to the north and east of the spill areas to complete the horizontal delineation. Soil samples were collected from 0 to 0.5 feet bgs and 0.5 to 1-foot bgs. Laboratory analysis reported nineteen (19) sample locations (S-1 through S-8, S-10 through S-18, S-21, and S-22) remained above the NMOCD delineation requirements for chloride of 600 mg/Kg.

On January 28 and 29, 2020, Scarborough Drilling, Inc. (SDI) under supervision from LAI personnel used an air rotary drilling rig to continue the vertical delineation at the previously stated nineteen (19) sample locations. Soil samples were collected in five (5) foot intervals to a maximum depth of approximately twenty (20) feet bgs. Laboratory analysis reported eleven (11) sample locations (S-1 through S-5, S-7, S-8, S-11, S-12, S-15, and S-21) remained above the NMOCD delineation requirement for chloride.

On June 30, 2020, SDI under supervision from LAI personnel drilled thirteen (13) additional bore hole sample locations (BH-1 through BH-13) encompassing all three (3) releases. The borings were drilled to a maximum depth of approximately seventy (70) feet bgs. One sample location (BH-2) remained above the NMOCD delineation requirement for chloride at 655 mg/Kg at seventy (70) feet bgs.

On May 3, 2021, during a conference call with NMOCD (Bradford Billings) regarding the elevated chloride concentration at BH-2 at depths of 60, 65, and 70 feet bgs, NMOCD stated that the chloride concentrations have "*the potential to be influenced by the nearby potash mine located about 0.46 miles northwest. The chloride concentrations from BH-1 and BH-2 at the depth interval between about 25 and 55 feet bgs display concentrations that are analogous to the concentrations between 60 and 70 feet bgs. Additionally, Chevron will remediate the spill area in accordance with NMOCD closure criteria for groundwater at 70.30 feet bgs. Chevron requests concurrence from the OCD for the chloride delineation at sample location BH-2 to be fully delineated*". On May 4, 2021, a follow up telephone conversation, NMOCD (Bradford Billings) confirmed that the site was "*satisfactorily vertically delineated, and the reported depth of groundwater at about 70 feet is adequate to calculate closure criteria"*. Table 1 presents the soil sample analytical data summary. Figure 2 presents an aerial map showing the soil sample locations. Figure 4 presents an aerial map showing the proposed excavations. Appendix B presents the laboratory reports. Appendix D presents the NMOCD communications.

# 3.0 REMEDIATION AND RECLAMATION

In January 2022, Rocky Peak, Inc. (Rocky Peak) under supervision from LAI personnel began excavating soil to a depth of 4.1 feet bgs encompassing the following sample locations S-1 through S-7, S-9, S-11, S-12, S-14 through S-22, and BH-3 through BH-13 measuring approximately 9,321 square feet. Additionally, soil was excavated to a depth of six (6) feet bgs encompassing the following sample locations S-8, S-10, S-13, BH-1, and BH-2 measuring approximately 1,555 square feet. Contaminated soil was stockpiled on a liner prior to being hauled to the R360 Red Bluff disposal facility located approximately 13 miles northwest of Orla, Texas.

On January 7 and 12, 2022, LAI personnel collected five-point composite samples for every 200 square feet of the excavation. Eighty-three (83) composite bottom and sidewall confirmation soil samples (C-1 through C-83) were collected from within the excavated areas. The samples were delivered under COC and preservation to Eurofins – Xenco Laboratory (Xenco) in Midland, Texas. The laboratory analyzed the samples for BTEX, TPH, and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively. Laboratory analysis reported twenty-seven (27) sidewall confirmation soil samples (C-2 through C-19, C-56, C-57, C-59, C-60, C-61, and C-63 through C-66) above the NMOCD closure criteria of 100 mg/Kg and 600 mg/Kg for TPH and/or chloride, respectively. Figure 5 presents an aerial map showing the January 2022 confirmation soil sample locations.

On January 25, 2022, an email was submitted to Bradford Billings (NMOCD) requesting clarification regarding the cleanup level for the Site, with groundwater being reported at a depth of approximately 70 feet bgs. Mr. Billings responded wiht "*If GW is between 51 and 100 feet bgs one can use the middle Tier for cleanup criteria for soils, which among other aspects are 2,500 mg/kg Total TPH (MRO, DRO and GRO) and chloride of 10,000 mg/kg or less…".*

During March 2022 Rocky Peak, under supervision from LAI personnel, excavated additional soil encompassing the above-mentioned twenty-seven (27) sidewall confirmation sample locations. LAI personnel field tested concurrently with excavation activities to determine if further excavation was necessary. As the sidewalls continued to expand, nine (9) additional bottom confirmation soil samples (C-84 through C-92) were collected. The excavation at sample locations C-6 through C-9 and C-13 through C-18 encompassing the diesel-based mud spill area and oil-based mud spill area that was extended an additional 25 to 35 feet east and north, was halted due to elevated chloride concentrations reported from field testing. Laboratory analysis of the remaining sample locations reported six (6) samples (C-2, C-4, C-5, C-59, C-60, and C-63) with chloride above the NMOCD closure criteria (600 mg/Kg).

On May 4, 2022, LAI personnel used the Geoprobe 7822DT direct push rig to collect background soil samples (BG-1 and BG-2) approximately 50 feet southeast on the production pad and north of the excavation in the pasture, respectively. Laboratory analysis of sample BG-1 reported chloride concentrations above the NMOCD delineation/closure criteria (600 mg/Kg) at a depth of approximately three (3) feet bgs at 810 mg/Kg, with the highest chloride concentrations reported on the production pad. LAI requested approval from the NMOCD to collect additional composite soil samples over the pad at sample locations BG-1 through BG-5 (A through E) to confirm if elevated chloride concentrations exist throughout the entirety of the production pad. During a phone call on August 24, 2022, NMOCD (Bradford Billings) granted approval for the background sampling. An email was subsequently sent where Mr. Billings requested additional samples be collected off the pad from unaffected area(s).

On November 14, 2022, SDI, under supervision from LAI personnel, collected soil samples at locations BG-1 through BG-5 (A through E) with an air rotary rig at depths of one (1), three (3), five (5), and ten (10) feet bgs and were composited per the approved plan. A composite soil sample was collected from each depth interval (i.e., one (1) foot) at sample locations A through E.

Laboratory analysis reported elevated chloride concentrations between 631 mg/Kg to 1,370 mg/Kg throughout the entirety of the production pad and off the pad at varying depths ranging from one (1) to ten (10) feet bgs. Furthermore, comparing the analytical data collected from the production pad vs off the pad at sample locations upgradient (BG-10) and downgradient (BG-11), demonstrates the pad was constructed with material with chloride concentrations greater than 600 mg/Kg. A background sample (BG-6), located approximately 40 feet east of the remediation area, reported chloride concentrations of 684 mg/Kg and 631 mg/Kg at depths of five (5) and ten (10) feet bgs, respectively. Chloride concentrations increased with depth at the background (BG-6) sample locations. Figure 6 presents an aerial map showing confirmation and background soil samples.
During November 2022, SDR Enterprises, LLC (SDR) excavated additional soil encompassing sample locations C-2, C-4, C-5 through C-9, C-12 through C-19, and C-60. Due to the distance in which the sidewall sample locations were excavated and the area in which these samples were located, new sample ID's (SW-2 through SW-8). Also, an additional twenty-six (26) bottom confirmation soil samples (C-93 through C-115) were collected from within the excavated areas. Laboratory analysis reported sidewall confirmation soil samples SW-2 through SW-8 above the NMOCD closure criteria for chloride.

An email was submitted to the NMOCD (Bradford Billings) on January 4, 2023, requesting a variance for sidewall sample locations where chloride concentrations remained above 600 mg/Kg. Sidewall confirmation soil samples where chloride concentrations remain above 600 mg/Kg range from 605 mg/Kg to 2,890 mg/kg, where one (1) sidewall sample location (SW-7) reported chloride concentration of 7,050 mg/kg. The variance request was denied by the NMOCD and requested additional soil be excavated encompassing the sample locations that remained above the NMOCD closure criteria.

During July 2023, SDR filled the excavation area with clean caliche obtained from a nearby borrow pit to allow for a workover rig to access the wells. The excavation was mapped with a Trimble Geo7x, which has a sub-one (1) foot accuracy. Also, drone photos were collected of the excavation areas prior to backfilling. LAI personnel collected fourteen (14) composite soil samples (BF-1 through BF-3 and BF-5 through BF-15) (Sample ID BF-4 was not used) of the backfill material. Xenco analyzed the samples for BTEX, TPH, and chloride. Benzene, BTEX, and TPH were reported below the method reporting limits (RLs). Chloride was above the NMOCD closure criteria of 600 mg/Kg samples collected at BF-1, BF-5, BF-6, and BF-7, therefore, no backfill material was obtained from these sample locations.

During February 2024 SDR, under supervision of LAI personnel, excavated additional soil encompassing sidewall sample locations SW-2 through SW-8, C-2, C-4, C-4, C-12, C-19, C-53, and C-63. LAI personnel field tested concurrently with excavation activities to determine if further excavation was necessary. An additional thirty-eight (38) bottom confirmation soil samples were collected in these excavation areas. Previously two (2) excavation areas were established to remediate these releases, but with the extension of the sidewalls, one (1) larger remediation/excavation area was established. Laboratory analysis reported all confirmation soil samples below the NMOCD closure criteria for chloride where groundwater occurs

between 51 and 100 feet bgs. Figure 7 presents an aerial map showing the confirmation soil sample locations, February 2024.

During March 2024 SDR backfilled the excavation with clean caliche obtained from the borrow pit previously used in July 2023. The production pad was watered and rolled/compacted to its original state. Figure 8 presents an aerial map showing the backfill sample locations. Appendix E presents the laboratory reports. Appendix F presents the photographic documentation.

# 4.0 CLOSURE REQUEST

Chevron requests no further action for nAB1902541117, nAB1906052173, and nAB1909160291.

# Tables

**Table 1**
**Delineation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff**
**Eddy County, New Mexico**
**North 32.24039° West 104.01070°**



| Sample | Depth (Feet) | Collection Date | Status | Benzene (mg/Kg | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Remediation Level:** | | | | **10** | **50** | | | | **100** | **600** |
| **S-1** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.6 | <26.6 | <26.6 | <26.6 | **3,790** |
| | 5 | 12/17/2019 | In-Situ | <0.00198 | <0.00198 | <50.0 | <50.0 | <50.0 | <50.0 | **2,020** |
| | 7 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <49.9 | <49.9 | <49.9 | <49.9 | **1,790** |
| | 10 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,470** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **999** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,070** |
| **S-2** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | 403 | 13,700 | 393 | **14,500** | **1,790** |
| | 5 | 12/17/2019 | In-Situ | <0.00202 | <0.00202 | <50.0 | 139 | <50.0 | 139 | **851** |
| | 7 | 12/17/2019 | In-Situ | <0.00198 | <0.00198 | <49.9 | <49.9 | <49.9 | <49.9 | **2,790** |
| | 10 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **751** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,150** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,060** |
| **S-3** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.3 | 183 | 52.9 | **236** | **1,540** |
| | 5 | 12/17/2019 | In-Situ | <0.00198 | <0.00198 | <49.9 | <49.9 | <49.9 | <49.9 | **2,380** |
| | 7 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <50.0 | <50.0 | <50.0 | <50.0 | **1,850** |
| | 10 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **879** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,240** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,240** |
| **S-4** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <27.2 | 2,190 | 1,070 | **3,260** | **6,770** |
| | 5 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <50.0 | <50.0 | <50.0 | <50.0 | **5,390** |

**Table 1**
**Delineation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff**
**Eddy County, New Mexico**
**North 32.24039° West 104.01070°**



| Sample | Depth (Feet) | Collection Date | Status | Benzene (mg/Kg | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Remediation Level:** | | | | **10** | **50** | | | | **100** | **600** |
| | 7 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <49.8 | <49.8 | <49.8 | <49.8 | **2,630** |
| | 10 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,430** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,360** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,050** |
| **S-5** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.0 | 139 | 59.1 | **198** | **1,610** |
| | 5 | 12/17/2019 | In-Situ | <0.00199 | <0.00199 | <50.0 | <50.0 | <50.0 | <50.0 | **2,930** |
| | 7 | 12/17/2019 | In-Situ | <0.00198 | <0.00198 | <49.8 | <49.8 | <49.8 | <49.8 | **2,770** |
| | 10 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,110** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **845** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **711** |
| **S-6** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.3 | 417 | 110 | **527** | **5,550** |
| | 5 | 12/17/2019 | In-Situ | <0.00198 | <0.00198 | <50.0 | <50.0 | <50.0 | <50.0 | **1,030** |
| | 7 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <50.0 | <50.0 | <50.0 | <50.0 | **913** |
| | 10 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **693** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 521 |
| **S-7** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <27.5 | 243 | 87.2 | **330** | **7,130** |
| | 5 | 12/17/2019 | In-Situ | <0.00201 | <0.00201 | <49.8 | <49.8 | <49.8 | <49.8 | **3,130** |
| | 6 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,930** |
| | 10 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,020** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,030** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **847** |
| **S-8** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.6 | 84.3 | 28.9 | **113** | **2,940** |
| | 5 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <49.9 | <49.9 | <49.9 | <49.9 | **1,880** |

**Table 1**
**Delineation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff**
**Eddy County, New Mexico**
**North 32.24039° West 104.01070°**



| Sample | Depth (Feet) | Collection Date | Status | Benzene (mg/Kg | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Remediation Level:** | | | | **10** | **50** | | | | **100** | **600** |
| | 6 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,130** |
| | 10 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,700** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,540** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,440** |
| **S-9** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.6 | 189 | 76 | **265** | **6,350** |
| | 5 | 12/17/2019 | In-Situ | <0.00198 | <0.00198 | <49.9 | <49.9 | <49.9 | <49.9 | **2,060** |
| | 7 | 12/17/2019 | In-Situ | <0.00201 | <0.00201 | <50.0 | <50.0 | <50.0 | <50.0 | 293 |
| **S-10** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.3 | 139 | 55.4 | **194** | **5,120** |
| | 5 | 12/17/2019 | In-Situ | <0.00199 | <0.00199 | <50.0 | <50.0 | <50.0 | <50.0 | **1,340** |
| | 6 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 325 |
| **S-11** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.0 | 162 | 67.1 | **229** | **1,160** |
| | 5 | 11/18/2019 | In-Situ | <0.00199 | <0.00199 | <50.0 | <50.0 | <50.0 | <50.0 | **1,540** |
| | 7 | 11/18/2019 | In-Situ | <0.00199 | <0.00199 | <49.9 | <49.9 | <49.9 | <49.9 | **992** |
| | 10 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **928** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,110** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,060** |
| **S-12** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.0 | 432 | 144 | **575** | **1,330** |
| | 5 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <49.8 | <49.8 | <49.8 | <49.8 | **671** |
| | 7 | 12/17/2019 | In-Situ | <0.00199 | <0.00199 | <50.0 | <50.0 | <50.0 | <50.0 | **828** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **865** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **738** |
| **S-13** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <25.8 | 410 | 135 | **545** | **3,720** |
| | 5 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <50.0 | <50.0 | <50.0 | <50.0 | **1,080** |

**Table 1**
**Delineation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff**
**Eddy County, New Mexico**
**North 32.24039° West 104.01070°**



| Sample | Depth (Feet) | Collection Date | Status | Benzene (mg/Kg | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Remediation Level:** | | | | **10** | **50** | | | | **100** | **600** |
| | 6 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 382 |
| **S-14** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <27.2 | 42.8 | <27.2 | 42.8 | **640** |
| | 5 | 12/17/2019 | In-Situ | <0.00201 | <0.00201 | <49.9 | <49.9 | <49.9 | <49.9 | **1,120** |
| | 6 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 589 |
| **S-15** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.6 | 1,270 | 342 | **1,610** | **2,520** |
| | 1 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <50.0 | 1,070 | 205 | **1,280** | **4,960** |
| | 2 | 1/28/2020 | In-Situ | -- | -- | <49.9 | 171 | <49.9 | 171 | **751** |
| | 5 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,140** |
| | 10 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **823** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **721** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **722** |
| **S-16** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <260 | 24,000 | 3,460 | **27,500** | **7,360** |
| | 1 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <50.0 | <50.0 | <50.0 | <50.0 | **1,470** |
| | 2 | 1/29/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **966** |
| | 5 | 1/29/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 301 |
| | 10 | 1/29/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 506 |
| **S-17** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <27.2 | 1,320 | 247 | **1,570** | **10,700** |
| | 1.5 | 12/17/2019 | In-Situ | <0.00202 | <0.00202 | <49.8 | 703 | <49.8 | **703** | **6,040** |
| | 2 | 1/29/2020 | In-Situ | -- | -- | <50.0 | <50.0 | <50.0 | <50.0 | 223 |
| **S-18** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <26.9 | 433 | 71.2 | **504** | **7,090** |
| | 2 | 12/17/2019 | In-Situ | <0.00202 | <0.00202 | <50.0 | <50.0 | <50.0 | <50.0 | **1,270** |
| | 5 | 1/29/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 63.8 |

**Table 1**
**Delineation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff**
**Eddy County, New Mexico**
**North 32.24039° West 104.01070°**



| Sample | Depth (Feet) | Collection Date | Status | Benzene (mg/Kg | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Remediation Level:** | | | | **10** | **50** | | | | **100** | **600** |
| **S-19** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <25.8 | 363 | 94.6 | **458** | **1,120** |
| | 3 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <49.8 | <49.8 | <49.8 | <49.8 | 34.9 |
| **S-20** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | 29.3 | 4,730 | 584 | **5,340** | **5,590** |
| | 3 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <49.9 | <49.9 | <49.9 | <49.9 | 295 |
| **S-21** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <266 | 15,000 | 1,490 | **16,500** | **4,720** |
| | 5 | 12/17/2019 | In-Situ | <0.00199 | <0.00199 | <49.8 | 96 | <49.8 | 96 | 321 |
| | 10 | 12/17/2019 | In-Situ | <0.00201 | <0.00201 | <50.0 | <50.0 | <50.0 | <50.0 | **1,770** |
| | 11 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **900** |
| | 15 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **805** |
| | 20 | 1/28/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,230** |
| **S-22** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00100 | <0.00600 | <133 | 10,500 | 1,520 | **12,000** | **3,270** |
| | 3 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <49.9 | <49.9 | <49.9 | <49.9 | **1,400** |
| | 5 | 1/29/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 150 |
| **S-23** | 0 - 0.5 | 11/18/2019 | In-Situ | <0.00201 | <0.00201 | <49.9 | <49.9 | <49.9 | <49.9 | 6.05 |
| | 0.5 - 1 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <49.9 | <49.9 | <49.9 | <49.9 | 9.26 |
| **S-24** | 0 - 0.5 | 12/17/2019 | In-Situ | <0.00198 | <0.00198 | <50.0 | <50.0 | <50.0 | <50.0 | 24.8 |
| | 0.5 - 1 | 12/17/2019 | In-Situ | <0.00198 | <0.00198 | <49.9 | <49.9 | <49.9 | <49.9 | 22.6 |
| **S-25** | 0-0.5 | 12/17/2019 | In-Situ | <0.00202 | <0.00202 | <49.8 | <49.8 | <49.8 | <49.8 | 6.77 |
| | 0.5-1 | 12/17/2019 | In-Situ | <0.00200 | <0.00200 | <50.0 | <50.0 | <50.0 | <50.0 | <5.05 |
| **S-26** | 0-0.5 | 1/29/2020 | In-Situ | <0.00202 | <0.00202 | <49.8 | <49.8 | <49.8 | <49.8 | 594.0 |
| | 2 | 1/29/2020 | In-Situ | <0.00199 | <0.00199 | -- | -- | -- | -- | -- |

**Table 1**
**Delineation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff**
**Eddy County, New Mexico**
**North 32.24039° West 104.01070°**



| Sample | Depth (Feet) | Collection Date | Status | Benzene (mg/Kg | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Remediation Level:** | | | | **10** | **50** | | | | **100** | **600** |
| | 5 | 1/29/2020 | In-Situ | <0.00200 | <0.00200 | -- | -- | -- | -- | -- |
| **S-27** | 0-0.5 | 1/29/2020 | In-Situ | <0.00198 | <0.00198 | <49.9 | <49.9 | <49.9 | <49.9 | 63.7 |
| | 0.5 - 1 | 1/29/2020 | In-Situ | <0.00200 | <0.00200 | <50.0 | <50.0 | <50.0 | <50.0 | 76.0 |
| **BH-1** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **881** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 554 |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **953** |
| | 35 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 346 |
| | 40 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 432 |
| | 45 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 467 |
| | 50 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 458 |
| | 55 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 556 |
| | 60 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **680** |
| | 65 | 2/9/2021 | In-Situ | -- | -- | -- | -- | -- | -- | 531 |
| **BH-2** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **923** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 387 |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 542 |
| | 35 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 419 |
| | 40 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 432 |
| | 45 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 373 |
| | 50 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 421 |
| | 55 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 465 |
| | 60 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **617** |
| | 65 | 2/9/2021 | In-Situ | -- | -- | -- | -- | -- | -- | **601** |
| | 70 | 2/9/2021 | In-Situ | -- | -- | -- | -- | -- | -- | **655** |

**Table 1**
**Delineation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff**
**Eddy County, New Mexico**
**North 32.24039° West 104.01070°**



| Sample | Depth (Feet) | Collection Date | Status | Benzene (mg/Kg | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Remediation Level:** | | | | **10** | **50** | | | | **100** | **600** |
| **BH-3** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 396 |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 307 |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 274 |
| | 35 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 370 |
| | 40 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 265 |
| **BH-4** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **711** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 300 |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 389 |
| **BH-5** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,550** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 331 |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 369 |
| **BH-6** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **794** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 428 |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 242 |
| **BH-7** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **915** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,340** |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 198 |
| **BH-8** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,160** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 247 |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 198 |
| **BH-9** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **900** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 332 |

**Table 1**
**Delineation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff**
**Eddy County, New Mexico**
**North 32.24039° West 104.01070°**



| Sample | Depth (Feet) | Collection Date | Status | Benzene (mg/Kg | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Remediation Level:** | | | | **10** | **50** | | | | **100** | **600** |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 397 |
| **BH-10** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,230** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **655** |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **833** |
| | 35 | 2/9/2021 | In-Situ | -- | -- | -- | -- | -- | -- | 375 |
| **BH-11** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,170** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **826** |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **749** |
| | 35 | 2/9/2021 | In-Situ | -- | -- | -- | -- | -- | -- | 354 |
| **BH-12** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,630** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 270 |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 295 |
| **BH-13** | 20 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | **1,200** |
| | 25 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 224 |
| | 30 | 6/30/2020 | In-Situ | -- | -- | -- | -- | -- | -- | 350 |

Notes: Analysis performed by Permian Basin Environmental Laboratory by EPA SW-846 Methods 8021B (BTEX), 8015M (TPH), and M300 (chloride)
Depth in feet below ground surface (bgs)
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 levels**

**Table 2**
**Confirmation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff SE 5 32 Fed Com 3**
**Eddy County, New Mexico**
**North 32.240410 West -104.010122**

| Sample ID | Location | Depth (feet) | Collection Date | Status | Benzene (mg/Kg) | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RAL:** | | | | | **10** | **50** | | | | **100/2,500** | **600/10,000** |
| **C-1** | Sidewall | 0 - 4.1 | 1/7/2022 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 358 |
| **C-2** | Sidewall | 0 - 4.1 | 1/7/2022 | Excavated | <0.00199 | <0.00398 | <50.0 | 299 | <50.0 | **299** | **3,210** |
| | | | 3/28/2022 | Excavated | <0.00105 | <0.00211 | <26.3 | <26.3 | <26.3 | <26.3 | **1,160** |
| | | | 2/8/2024 | In-Situ | <0.00198 | <0.00396 | <50.5 | <50.5 | <50.5 | <50.5 | 145 |
| **C-3** | Sidewall | 0 - 4.1 | 1/7/2022 | Excavated | <0.00200 | <0.00400 | <49.9 | <49.9 | <49.9 | <49.9 | **2,240** |
| | | | 3/25/2022 | In-Situ | <0.00202 | <0.00404 | <49.9 | <49.9 | <49.9 | <49.9 | 451 |
| **C-4** | Sidewall | 0 - 4.1 | 1/7/2022 | Excavated | <0.00200 | <0.00400 | <49.9 | <49.9 | <49.9 | <49.9 | **695** |
| | | | 3/25/2022 | Excavated | <0.00198 | <0.00397 | <49.9 | <49.9 | <49.9 | <49.9 | **995** |
| | | | 2/8/2024 | In-Situ | <0.00200 | <0.00399 | <50.2 | <50.2 | <50.2 | <50.2 | 136 |
| **C-5** | Sidewall | 0 - 4.1 | 1/7/2022 | Excavated | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | **1,440** |
| | | | 3/25/2022 | Excavated | <0.00200 | <0.00399 | <49.9 | <49.9 | <49.9 | <49.9 | **943** |
| | | | 2/6/2024 | In-Situ | <0.00200 | <0.00399 | <49.7 | <49.7 | <49.7 | <49.7 | 276 |
| **C-6** | Sidewall | 0 - 4.1 | 1/7/2022 | In-Situ | <0.00202 | <0.00403 | <50.0 | <50.0 | <50.0 | <50.0 | **1,900** |
| **C-7** | Sidewall | 0 - 4.1 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | **1,500** |
| **C-8** | Sidewall | 0 - 4.1 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | **2,150** |
| **C-9** | Sidewall | 0 - 4.1 | 1/7/2022 | In-Situ | <0.00200 | <0.00400 | <50.0 | <50.0 | <50.0 | <50.0 | **2,080** |
| **C-10** | Sidewall | 0 - 6 | 1/7/2022 | Excavated | <0.00198 | <0.00396 | <50.0 | <50.0 | <50.0 | <50.0 | **1,950** |
| | | 0 - 6 | 3/28/2022 | In-Situ | <0.00114 | <0.00227 | <28.4 | <28.4 | <28.4 | <28.4 | 204 |
| **C-11** | Sidewall | 0 - 6 | 1/7/2022 | Excavated | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | **1,500** |
| | | 0 - 6 | 3/28/2022 | In-Situ | <0.00110 | <0.00220 | <27.5 | <27.5 | <27.5 | <27.5 | 82.4 |
| **C-12** | Sidewall | 0 - 6 | 1/7/2022 | Excavated | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | **846** |
| | | 0 - 4.1 | 2/7/2024 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | 578 |
| **C-13** | Sidewall | 0 - 6 | 1/7/2022 | In-Situ | <0.00202 | <0.00403 | <50.0 | <50.0 | <50.0 | <50.0 | **1,160** |
| **C-14** | Sidewall | 0 - 6 | 1/7/2022 | In-Situ | <0.00202 | <0.00404 | <49.9 | <49.9 | <49.9 | <49.9 | **2,380** |
| **C-15** | Sidewall | 0 - 6 | 1/7/2022 | In-Situ | <0.00198 | <0.00397 | <50.0 | <50.0 | <50.0 | <50.0 | **1,340** |
| **C-16** | Sidewall | 0 - 6 | 1/7/2022 | In-Situ | <0.00200 | <0.00400 | <49.9 | <49.9 | <49.9 | <49.9 | **1,580** |
| **C-17** | Sidewall | 0 - 4.1 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | 120 | <49.9 | **120** | **1,410** |
| **C-18** | Sidewall | 0 - 4.1 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | **2,820** |
| **C-19** | Sidewall | 0 - 4.1 | 1/7/2022 | Excavated | <0.00202 | <0.00403 | <50.0 | <50.0 | <50.0 | <50.0 | **2,570** |
| | | | 2/8/2024 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 212 |

**Table 2**
**Confirmation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff SE 5 32 Fed Com 3**
**Eddy County, New Mexico**
**North 32.240410 West -104.010122**

| Sample ID | Location | Depth (feet) | Collection Date | Status | Benzene (mg/Kg) | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RAL:** | | | | | **10** | **50** | | | | **100/2,500** | **600/10,000** |
| **C-20** | Sidewall | 0 - 4.1 | 1/7/2022 | In-Situ | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | 34.1 |
| **C-21** | Sidewall | 0 - 4.1 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | <4.98 |
| **C-22** | Sidewall | 0 - 4.1 | 1/7/2022 | In-Situ | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | <5.00 |
| **C-23** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | <4.95 |
| **C-24** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00200 | <0.00400 | <49.9 | <49.9 | <49.9 | <49.9 | 123 |
| **C-25** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00202 | <0.00404 | <50.0 | <50.0 | <50.0 | <50.0 | 847 |
| **C-26** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00200 | <0.00400 | <50.0 | <50.0 | <50.0 | <50.0 | 2,450 |
| **C-27** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 2,740 |
| **C-28** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | 83.3 | <49.9 | 83.3 | 163 |
| **C-29** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 2,870 |
| **C-30** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00202 | <0.00404 | <50.0 | <50.0 | <50.0 | <50.0 | 2,700 |
| **C-31** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | 614 | <50.0 | 614 | 1,820 |
| **C-32** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | 2,710 |
| **C-33** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 1,600 |
| **C-34** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 2,840 |
| **C-35** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00202 | <0.00403 | <50.0 | <50.0 | <50.0 | <50.0 | 2,920 |
| **C-36** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00202 | <0.00403 | <49.9 | <49.9 | <49.9 | <49.9 | 3,620 |
| **C-37** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00200 | <0.00400 | <49.9 | 68.9 | <49.9 | 68.9 | 3,340 |
| **C-38** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 2,710 |
| **C-39** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00198 | <0.00397 | <50.0 | <50.0 | <50.0 | <50.0 | 2,070 |
| **C-40** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 1,740 |
| **C-41** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 869 |
| **C-42** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00202 | <0.00403 | <50.0 | <50.0 | <50.0 | <50.0 | 1,770 |
| **C-43** | Bottom | 4.1 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 222 |
| **C-44** | Bottom | 6 | 1/7/2022 | In-Situ | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 933 |
| **C-45** | Bottom | 6 | 1/7/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | 991 |
| **C-46** | Bottom | 6 | 1/7/2022 | In-Situ | <0.00200 | <0.00400 | <49.9 | <49.9 | <49.9 | <49.9 | 319 |
| **C-47** | Bottom | 6 | 1/7/2022 | In-Situ | <0.00198 | <0.00397 | <49.9 | <49.9 | <49.9 | <49.9 | 4,010 |
| **C-48** | Bottom | 6 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 776 |
| **C-49** | Bottom | 6 | 1/7/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 1,310 |

**Table 2**
**Confirmation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff SE 5 32 Fed Com 3**
**Eddy County, New Mexico**
**North 32.240410 West -104.010122**

| Sample ID | Location | Depth (feet) | Collection Date | Status | Benzene (mg/Kg) | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RAL:** | | | | | **10** | **50** | | | | **100/2,500** | **600/10,000** |
| **C-50** | Bottom | 6 | 1/7/2022 | In-Situ | <0.00200 | <0.00399 | <49.9 | <49.9 | <49.9 | <49.9 | 1,050 |
| **C-51** | Bottom | 6 | 1/7/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 1,100 |
| **C-52** | Sidewall | 0 - 4.1 | 1/12/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 262 |
| **C-53** | Sidewall | 0 - 4.1 | 1/12/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 299 |
| **C-54** | Sidewall | 0 - 4.1 | 1/12/2022 | In-Situ | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 244 |
| **C-55** | Sidewall | 0 - 4.1 | 1/12/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 510 |
| **C-56** | Sidewall | 0 - 4.1 | 1/12/2022 | Excavated | <0.00201 | <0.00402 | <50.0 | 64.1 | <50.0 | 64.1 | **662** |
| | | 0 - 4.1 | 3/28/2022 | In-Situ | <0.00104 | <0.00408 | <26.0 | <26.0 | <26.0 | <26.0 | 321 |
| **C-57** | Sidewall | 0 - 4.1 | 1/12/2022 | Excavated | <0.00202 | <0.00404 | <50.0 | 94.7 | <50.0 | 94.7 | **633** |
| | | 0 - 4.1 | 3/28/2022 | In-Situ | <0.00103 | <0.00206 | <25.8 | <25.8 | <25.8 | <25.8 | 375 |
| **C-58** | Sidewall | 0 - 4.1 | 1/12/2022 | In-Situ | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 448 |
| **C-59** | Sidewall | 0 - 4.1 | 1/12/2022 | Excavated | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | **2,320** |
| | | 0 - 4.1 | 3/24/2022 | Excavated | <0.00198 | <0.00396 | <49.9 | <49.9 | <49.9 | <49.9 | **874** |
| | | | 2/8/2024 | In-Situ | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 234 |
| **C-60** | Sidewall | 0 - 4.1 | 1/12/2022 | Excavated | <0.00202 | <0.00403 | <50.0 | 842 | <50.0 | **842** | **2,890** |
| | | 0 - 4.1 | 3/24/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | **934** |
| **C-61** | Sidewall | 0 - 4.1 | 1/12/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | **605** |
| | | 0 - 4.1 | 3/24/2022 | In-Situ | <0.00200 | <0.00399 | <49.8 | <49.8 | <49.8 | <49.8 | 295 |
| **C-62** | Sidewall | 0 - 4.1 | 1/12/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | 504 |
| **C-63** | Sidewall | 0 - 4.1 | 1/12/2022 | Excavated | <0.00202 | <0.00403 | <49.9 | 86.4 | <49.9 | 86.4 | **1,620** |
| | | 0 - 4.1 | 3/28/2022 | Excavated | <0.00110 | <0.00220 | <27.5 | <27.5 | <27.5 | <27.5 | **1,230** |
| | | 0 - 4.1 | 2/8/2024 | In-Situ | <0.00199 | <0.00398 | <50.1 | <50.1 | <50.1 | <50.1 | 541 |
| **C-64** | Sidewall | 0 - 4.1 | 1/12/2022 | Excavated | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | **951** |
| | | 0 - 4.1 | 3/24/2022 | In-Situ | <0.00200 | <0.00399 | <49.8 | <49.8 | <49.8 | <49.8 | 348 |
| **C-65** | Sidewall | 0 - 4.1 | 1/12/2022 | Excavated | <0.00200 | <0.00400 | <50.0 | 120 | <50.0 | **120** | **1,330** |
| | | 0 - 4.1 | 3/28/2022 | In-Situ | <0.00104 | <0.00208 | <26.0 | <26.0 | <26.0 | <26.0 | 464 |
| **C-66** | Sidewall | 0 - 4.1 | 1/12/2022 | Excavated | <0.00200 | <0.00400 | <50.0 | <50.0 | <50.0 | <50.0 | **757** |
| | | 0 - 4.1 | 3/24/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | 364 |
| **C-67** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 734 |
| **C-68** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00198 | <0.00396 | <49.9 | <49.9 | <49.9 | <49.9 | 495 |

**Table 2**
**Confirmation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff SE 5 32 Fed Com 3**
**Eddy County, New Mexico**
**North 32.240410 West -104.010122**

| Sample ID | Location | Depth (feet) | Collection Date | Status | Benzene (mg/Kg) | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RAL:** | | | | | **10** | **50** | | | | **100/2,500** | **600/10,000** |
| **C-69** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 536 |
| **C-70** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00202 | <0.00404 | <49.9 | <49.9 | <49.9 | <49.9 | 710 |
| **C-71** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | 613 |
| **C-72** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 622 |
| **C-73** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 2,170 |
| **C-74** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 439 |
| **C-75** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00202 | <0.00404 | <50.0 | <50.0 | <50.0 | <50.0 | 525 |
| **C-76** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 789 |
| **C-77** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00200 | <0.00400 | <49.9 | <49.9 | <49.9 | <49.9 | 1,060 |
| **C-78** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00200 | <0.00399 | <49.9 | <49.9 | <49.9 | <49.9 | 1,080 |
| **C-79** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00200 | <0.00399 | <49.9 | <49.9 | <49.9 | <49.9 | 443 |
| **C-80** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00202 | <0.00404 | <50.0 | <50.0 | <50.0 | <50.0 | 444 |
| **C-81** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00202 | <0.00403 | <49.9 | <49.9 | <49.9 | <49.9 | 904 |
| **C-82** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | 1,090 |
| **C-83** | Bottom | 4.1 | 1/12/2022 | In-Situ | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 888 |
| **C-84** | Bottom | 4.1 | 3/24/2022 | In-Situ | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 738 |
| **C-85** | Bottom | 4.1 | 3/24/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 874 |
| **C-86** | Bottom | 4.1 | 3/25/2022 | In-Situ | <0.00200 | <0.00400 | <49.7 | <49.7 | <49.7 | <49.7 | 1,660 |
| **C-87** | Bottom | 4.1 | 3/25/2022 | In-Situ | <0.00198 | <0.00397 | <50.0 | <50.0 | <50.0 | <50.0 | 3,030 |
| **C-88** | Bottom | 4.1 | 3/25/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 1,590 |
| **C-89** | Bottom | 4.1 | 3/28/2022 | In-Situ | <0.00103 | <0.00206 | <25.8 | <25.8 | <25.8 | <25.8 | 1,130 |
| **C-90** | Bottom | 4.1 | 3/28/2022 | In-Situ | <0.00106 | <0.00213 | <26.6 | <26.6 | <26.6 | <26.6 | 1,280 |
| **C-91** | Bottom | 4.1 | 3/28/2022 | In-Situ | <0.00108 | <0.00215 | <26.9 | <26.9 | <26.9 | <26.9 | 1,520 |
| **C-92** | Bottom | 4.1 | 3/28/2022 | In-Situ | <0.00109 | <0.00217 | <27.2 | <27.2 | <27.2 | <27.2 | 1,490 |
| **C-90** | Bottom | 5.5 | 11/16/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 1,050 |
| **C-91** | Bottom | 5.5 | 11/16/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 593 |
| **C-92** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 799 |
| **C-93** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 265 |
| **C-94** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 361 |
| **C-95** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | 200 |

**Table 2**
**Confirmation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff SE 5 32 Fed Com 3**
**Eddy County, New Mexico**
**North 32.240410 West -104.010122**

| Sample ID | Location | Depth (feet) | Collection Date | Status | Benzene (mg/Kg) | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RAL:** | | | | | **10** | **50** | | | | **100/2,500** | **600/10,000** |
| **C-96** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 240 |
| **C-97** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00202 | <0.00403 | <50.0 | <50.0 | <50.0 | <50.0 | 238 |
| **C-98** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 250 |
| **C-99** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00202 | <0.00404 | <49.9 | <49.9 | <49.9 | <49.9 | 504 |
| **C-100** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 596 |
| **C-101** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 382 |
| **C-102** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | 280 |
| **C-103** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 692 |
| **C-104** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00198 | <0.00396 | <49.9 | <49.9 | <49.9 | <49.9 | 998 |
| **C-105** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00200 | <0.00401 | <49.8 | <49.8 | <49.8 | <49.8 | 393 |
| **C-106** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | 263 |
| **C-107** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 987 |
| **C-108** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 1,070 |
| **C-109** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00202 | <0.00403 | <49.9 | <49.9 | <49.9 | <49.9 | 1,090 |
| **C-110** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 1,070 |
| **C-111** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 1,050 |
| **C-112** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00200 | <0.00400 | <50.0 | <50.0 | <50.0 | <50.0 | 407 |
| **C-113** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 406 |
| **C-114** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 1,310 |
| **C-115** | Bottom | 7 | 11/16/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 959 |
| **SW-2** | Sidewall | 0 - 5 | 11/16/2022 | Excavated | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | **629** |
| | | 0 - 4.1 | 2/6/2024 | In-Situ | <0.00199 | <0.00398 | <50.5 | <50.5 | <50.5 | <50.5 | 300 |
| **SW-3** | Sidewall | 0 - 5 | 11/16/2022 | Excavated | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | **1,150** |
| | | 0 - 4.1 | 2/6/2024 | In-Situ | <0.00198 | <0.00396 | <49.9 | <49.9 | <49.9 | <49.9 | 296 |
| **SW-4** | Sidewall | 0 - 7 | 11/16/2022 | Excavated | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | **633** |
| | | 0 - 4.1 | 2/7/2024 | In-Situ | <0.00202 | <0.00403 | <50.0 | <50.0 | <50.0 | <50.0 | 533 |
| **SW-5** | Sidewall | 0 - 7 | 11/16/2022 | Excavated | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | **1,870** |
| | | 0 - 4.1 | 2/7/2024 | In-Situ | <0.00198 | <0.00397 | <49.6 | <49.6 | <49.6 | <49.6 | 338 |
| **SW-6** | Sidewall | 0 - 7 | 11/16/2022 | Excavated | <0.00198 | <0.00396 | <49.9 | <49.9 | <49.9 | <49.9 | **2,270** |
| | | 0 - 4.1 | 2/9/2024 | In-Situ | <0.00200 | <0.00400 | <49.6 | <49.6 | <49.6 | <49.6 | 275 |

**Table 2**
**Confirmation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff SE 5 32 Fed Com 3**
**Eddy County, New Mexico**
**North 32.240410 West -104.010122**

| Sample ID | Location | Depth (feet) | Collection Date | Status | Benzene (mg/Kg) | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RAL:** | | | | | **10** | **50** | | | | **100/2,500** | **600/10,000** |
| **SW-7** | Sidewall | 0 - 5 | 11/16/2022 | Excavated | 0.00209 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | **7,050** |
| | | 0 - 4.1 | 2/8/2024 | In-Situ | <0.00199 | <0.00398 | <49.8 | <49.8 | <49.8 | <49.8 | 206 |
| **SW-8** | Sidewall | 0 - 7 | 11/16/2022 | In-Situ | <0.00199 | 0.00939 | <50.0 | <50.0 | <50.0 | <50.0 | **1,130** |
| | | 0 - 4.1 | 2/8/2024 | In-Situ | <0.00202 | <0.00403 | <49.9 | <49.9 | <49.9 | <49.9 | 279 |
| **C-116** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00200 | <0.00400 | <49.6 | <49.6 | <49.6 | <49.6 | 798 |
| **C-117** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00202 | <0.00404 | <49.8 | <49.8 | <49.8 | <49.8 | 1,020 |
| **C-118** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00201 | <0.00402 | <50.3 | <50.3 | <50.3 | <50.3 | 1,500 |
| **C-119** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00202 | <0.00403 | <50.5 | <50.5 | <50.5 | <50.5 | 1,830 |
| **C-120** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00199 | <0.00398 | <50.1 | <50.1 | <50.1 | <50.1 | 1,080 |
| **C-121** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00198 | <0.00396 | <50.4 | <50.4 | <50.4 | <50.4 | 552 |
| **C-122** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 1,360 |
| **C-123** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00198 | <0.00396 | <50.5 | <50.5 | <50.5 | <50.5 | 621 |
| **C-124** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00202 | <0.00404 | <50.0 | <50.0 | <50.0 | <50.0 | 920 |
| **C-125** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 1,130 |
| **C-126** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00202 | <0.00403 | <50.1 | <50.1 | <50.1 | <50.1 | 1,280 |
| **C-127** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00198 | <0.00397 | <50.3 | <50.3 | <50.3 | <50.3 | 237 |
| **C-128** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00200 | <0.00399 | <50.3 | <50.3 | <50.3 | <50.3 | 343 |
| **C-129** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00199 | <0.00398 | <50.4 | <50.4 | <50.4 | <50.4 | 1,440 |
| **C-130** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00198 | <0.00396 | <49.6 | <49.6 | <49.6 | <49.6 | 977 |
| **C-131** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00202 | <0.00403 | <49.8 | <49.8 | <49.8 | <49.8 | 3,110 |
| **C-132** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00200 | <0.00401 | <49.8 | <49.8 | <49.8 | <49.8 | 1,370 |
| **C-133** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 1,530 |
| **C-134** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00199 | <0.00398 | <50.3 | <50.3 | <50.3 | <50.3 | 1,420 |
| **C-135** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00200 | <0.00400 | <50.2 | <50.2 | <50.2 | <50.2 | 1,450 |
| **C-136** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00200 | <0.00400 | <50.1 | <50.1 | <50.1 | <50.1 | 1,480 |
| **C-137** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00202 | <0.00404 | <50.4 | <50.4 | <50.4 | <50.4 | 2,230 |
| **C-138** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00201 | <0.00402 | <50.5 | <50.5 | <50.5 | <50.5 | 1,240 |
| **C-139** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00202 | <0.00403 | <49.9 | <49.9 | <49.9 | <49.9 | 867 |
| **C-140** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00199 | <0.00398 | <49.8 | <49.8 | <49.8 | <49.8 | 1,120 |
| **C-141** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00198 | <0.00396 | <50.0 | <50.0 | <50.0 | <50.0 | 717 |

**Table 2**
**Confirmation Soil Sample Analytical Data Summary**
**Chevron USA, Culebra Bluff SE 5 32 Fed Com 3**
**Eddy County, New Mexico**
**North 32.240410 West -104.010122**

| Sample ID | Location | Depth (feet) | Collection Date | Status | Benzene (mg/Kg) | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RAL:** | | | | | **10** | **50** | | | | **100/2,500** | **600/10,000** |
| **C-142** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00199 | <0.00398 | <49.6 | <49.6 | <49.6 | <49.6 | 784 |
| **C-143** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00198 | <0.00396 | <50.5 | <50.5 | <50.5 | <50.5 | 543 |
| **C-144** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00202 | <0.00404 | <49.7 | <49.7 | <49.7 | <49.7 | 760 |
| **C-145** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 851 |
| **C-146** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00202 | <0.00403 | <49.9 | <49.9 | <49.9 | <49.9 | 1,220 |
| **C-147** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00199 | <0.00398 | <50.2 | <50.2 | <50.2 | <50.2 | 1,180 |
| **C-148** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00198 | <0.00397 | <49.8 | <49.8 | <49.8 | <49.8 | 1,050 |
| **C-149** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00200 | <0.00399 | <50.2 | <50.2 | <50.2 | <50.2 | 1,710 |
| **C-150** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00199 | <0.00398 | <50.1 | <50.1 | <50.1 | <50.1 | 783 |
| **C-151** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00198 | <0.00396 | <50.5 | <50.5 | <50.5 | <50.5 | 159 |
| **C-152** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00202 | <0.00403 | <49.9 | <49.9 | <49.9 | <49.9 | 861 |
| **C-153** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00200 | <0.00401 | <49.8 | <49.8 | <49.8 | <49.8 | 1,290 |
| **C-154** | Bottom | 4.1 | 2/9/2024 | In-Situ | <0.00199 | <0.00398 | <49.6 | <49.6 | <49.6 | <49.6 | 995 |
| **BF-1** | -- | -- | 3/27/2023 | In-Situ | <0.00198 | <0.00396 | <50.0 | <50.0 | <50.0 | <50.0 | **687** |
| **BF-2** | -- | -- | 3/27/2023 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 535 |
| **BF-3** | -- | -- | 3/27/2023 | In-Situ | <0.00200 | <0.00399 | <49.9 | <49.9 | <49.9 | <49.9 | 513 |
| **BF-4** | SAMPLE ID NOT USED | | | | | | | | | | |
| **BF-5** | -- | -- | 3/27/2023 | In-Situ | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | **1,040** |
| **BF-6** | -- | -- | 3/27/2023 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | **1,300** |
| **BF-7** | -- | -- | 3/27/2023 | In-Situ | <0.00202 | <0.00404 | <49.9 | <49.9 | <49.9 | <49.9 | **701** |
| **BF-8** | -- | -- | 3/27/2023 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 69.2 |
| **BF-9** | -- | -- | 3/27/2023 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 296 |
| **BF-10** | -- | -- | 3/27/2023 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 317 |
| **BF-11** | -- | -- | 3/27/2023 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 153 |
| **BF-12** | -- | -- | 3/27/2023 | In-Situ | <0.00202 | <0.00404 | <49.9 | <49.9 | <49.9 | <49.9 | 276 |
| **BF-13** | -- | -- | 3/27/2023 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 76.5 |
| **BF-14** | -- | -- | 3/27/2023 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 217 |
| **BF-15** | -- | -- | 3/27/2023 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 10.6 |

**Table 2**

**Confirmation Soil Sample Analytical Data Summary**

**Chevron USA, Culebra Bluff SE 5 32 Fed Com 3**

**Eddy County, New Mexico**

**North 32.240410 West -104.010122**

| Sample ID | Location | Depth (feet) | Collection Date | Status | Benzene (mg/Kg) | BTEX (mg/Kg) | C6 - C12 (mg/Kg) | C12 - C28 (mg/Kg) | C28 - C35 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RAL:** | | | | | **10** | **50** | | | | **100/2,500** | **600/10,000** |

Notes: analysis performed by Xenco Laboratories (Xenco), Midland, Texas and Carlsbad, New Mexico 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)

**Bold and Highlighted Denotes Conetrations Above OCD Closure Criteria**

**Denotes Sidewall Sample Location Removed**

**Table 3**

**Background Delineation Soil Sample Analytical Data Summary**

**Chevron USA, Culebra Bluff**

**Eddy County, New Mexico**

**North 32.24039° West 104.01070°**



| Sample | Depth (Feet) | Collection Date | Status | Benzene (mg/Kg | BTEX (mg/Kg) | C6 - C10 (mg/Kg) | C10 - C28 (mg/Kg) | C28 - C36 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Remediation Level:** | | | | **10** | **50** | | | | **100 /2,500** | **600/10,000** |
| **BG-1** | 1 | 5/4/2022 | In-Situ | <0.00200 | <0.00399 | <49.9 | <49.9 | <49.9 | <49.9 | 502 |
| | 3 | 5/4/2022 | In-Situ | <0.00199 | <0.00398 | <49.8 | <49.8 | <49.8 | <49.8 | **810** |
| | 5 | 5/4/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 559 |
| | 10 | 5/4/2022 | In-Situ | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 439 |
| **BG-2** | 1 | 5/4/2022 | In-Situ | <0.00202 | <0.00403 | <50.0 | <50.0 | <50.0 | <50.0 | 76.7 |
| **BG-3** | 1 | 11/14/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | **964** |
| | 3 | 11/14/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 276 |
| | 5 | 11/14/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 511 |
| | 10 | 11/14/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | **1,160** |
| **BG-4** | 1 | 11/14/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | **1,370** |
| | 3 | 11/14/2022 | In-Situ | <0.00202 | <0.00404 | <50.0 | <50.0 | <50.0 | <50.0 | 379 |
| | 5 | 11/14/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | **669** |
| | 10 | 11/14/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 441 |
| **BG-5** | 1 | 11/15/2022 | In-Situ | <0.00200 | <0.00399 | <49.9 | <49.9 | <49.9 | <49.9 | 280 |
| | 3 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 190 |
| | 5 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 248 |
| | 10 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 423 |
| **BG-6** | 1 | 11/14/2022 | In-Situ | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 226 |
| | 3 | 11/14/2022 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 581 |
| | 5 | 11/14/2022 | In-Situ | <0.00202 | <0.00404 | <50.0 | <50.0 | <50.0 | <50.0 | **684** |
| | 10 | 11/14/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | **631** |
| **BG-7** | 1 | 11/15/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | 250 | <50.0 | **250** | **866** |
| | 3 | 11/15/2022 | In-Situ | <0.00200 | <0.00399 | <49.9 | <49.9 | <49.9 | <49.9 | 431 |

**Table 3**

**Background Delineation Soil Sample Analytical Data Summary**

**Chevron USA, Culebra Bluff**

**Eddy County, New Mexico**

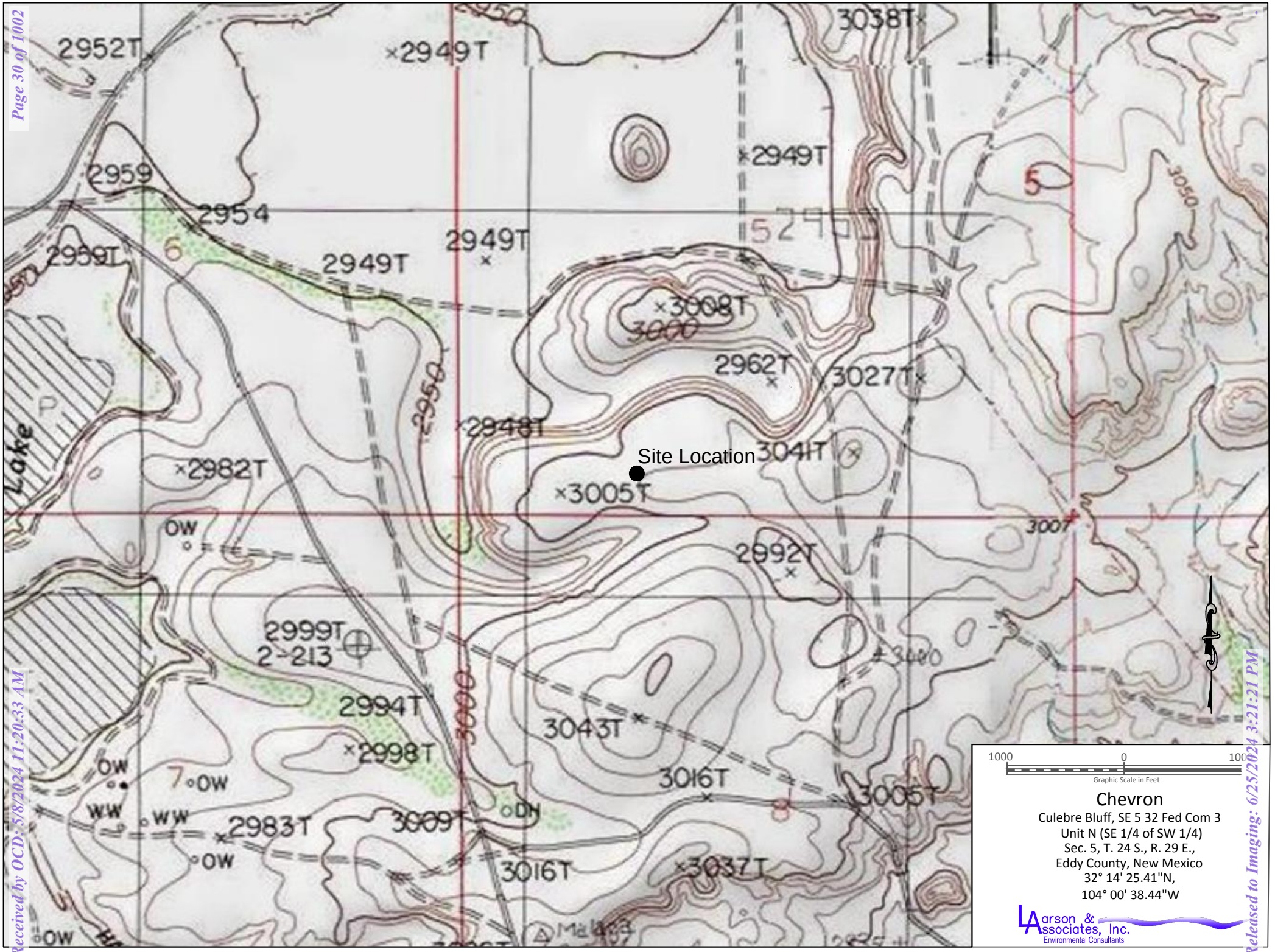
**North 32.24039° West 104.01070°**



| Sample | Depth (Feet) | Collection Date | Status | Benzene (mg/Kg | BTEX (mg/Kg) | C6 - C10 (mg/Kg) | C10 - C28 (mg/Kg) | C28 - C36 (mg/Kg) | TPH (mg/Kg) | Chloride (mg/Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Remediation Level:** | | | | **10** | **50** | | | | **100 /2,500** | **600/10,000** |
| | 5 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 485 |
| | 10 | 11/15/2022 | In-Situ | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | **809** |
| **BG-8** | 1 | 11/15/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | 197 |
| | 3 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 208 |
| | 5 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 166 |
| | 10 | 11/15/2022 | In-Situ | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | **1,050** |
| **BG-9** | 1 | 11/15/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 499 |
| | 3 | 11/15/2022 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 464 |
| | 5 | 11/15/2022 | In-Situ | <0.00202 | <0.00404 | <49.9 | <49.9 | <49.9 | <49.9 | 167 |
| | 10 | 11/15/2022 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | **671** |
| **BG-10** | 1 | 11/15/202 | In-Situ | <0.00202 | <0.00404 | <49.9 | <49.9 | <49.9 | <49.9 | 28.1 |
| | 3 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 21.2 |
| | 5 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 44.1 |
| | 10 | 11/15/2022 | In-Situ | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 428 |
| **BG-11** | 1 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | 89.4 |
| | 3 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 64.7 |
| | 5 | 11/15/2022 | In-Situ | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 152 |
| | 10 | 11/15/2022 | In-Situ | <0.00199 | <0.00398 | <49.8 | <49.8 | <49.8 | <49.8 | 570 |

Notes: Analysis performed by Eurofins - Xenco (Xenco) Laboratory Midland, Texasby EPA SW-846 Methods 8021B (BTEX), 8015M (TPH), and M300 (chloride)
Depth in feet below ground surface (bgs)
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 levels**

# Figures




Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

Figure 1 - Topographic Map

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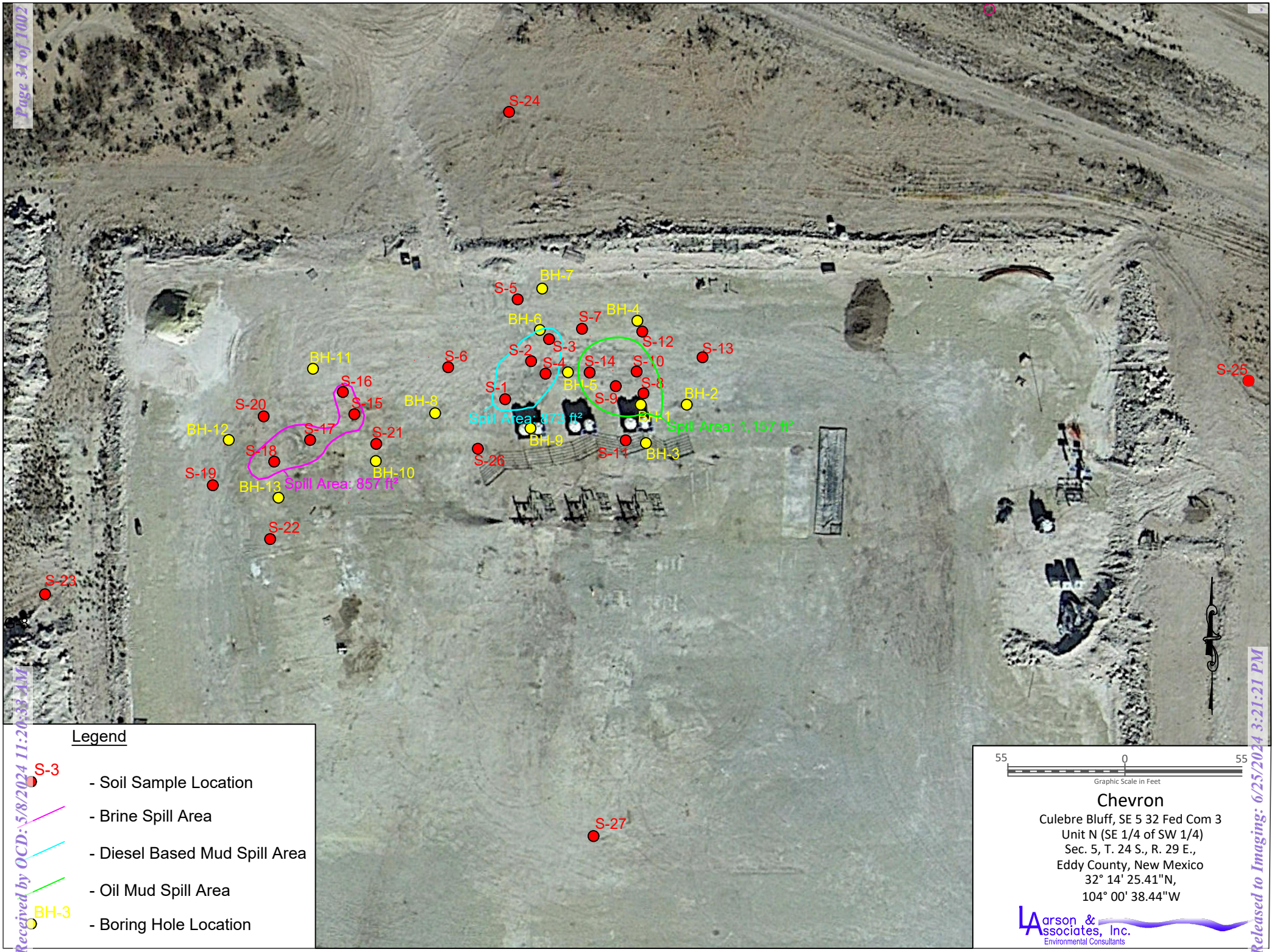


Figure 2 - Aerial Map Showing Sample and Bore Hole Locations

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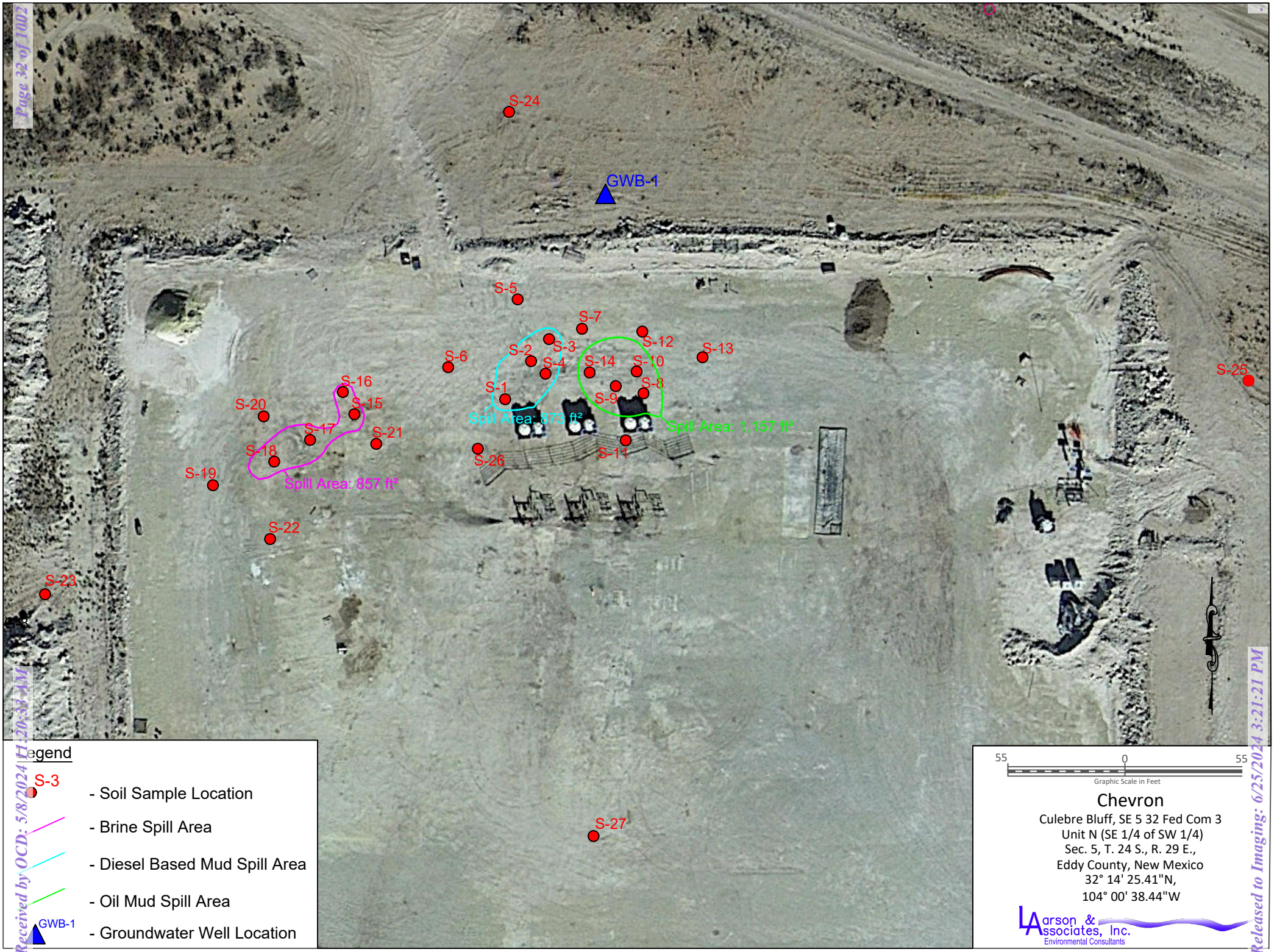


Figure 3 - Aerial Map Showing Groundwater Well Location

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Legend

S-3 - Soil Sample Location

BH-3 - Boring Hole Location

CB Fed Com 003 1H - Wellhead Location

- Brine Spill Area

- Proposed Excavation Area: 4.1'

- Diesel Based Mud Spill Area

- Proposed Excavation Area: 6'

- Oil Mud Spill Area

50 0 50

Graphic Scale in Feet

Chevron

Culebre Bluff, SE 5 32 Fed Com 3
Unit N (SE 1/4 of SW 1/4)
Sec. 5, T. 24 S., R. 29 E.,
Eddy County, New Mexico
32° 14' 25.41"N,
104° 00' 38.44"W

Larson & Associates, Inc.
Environmental Consultants

Figure 4 - Aerial Map Showing Proposed Excavation Locations

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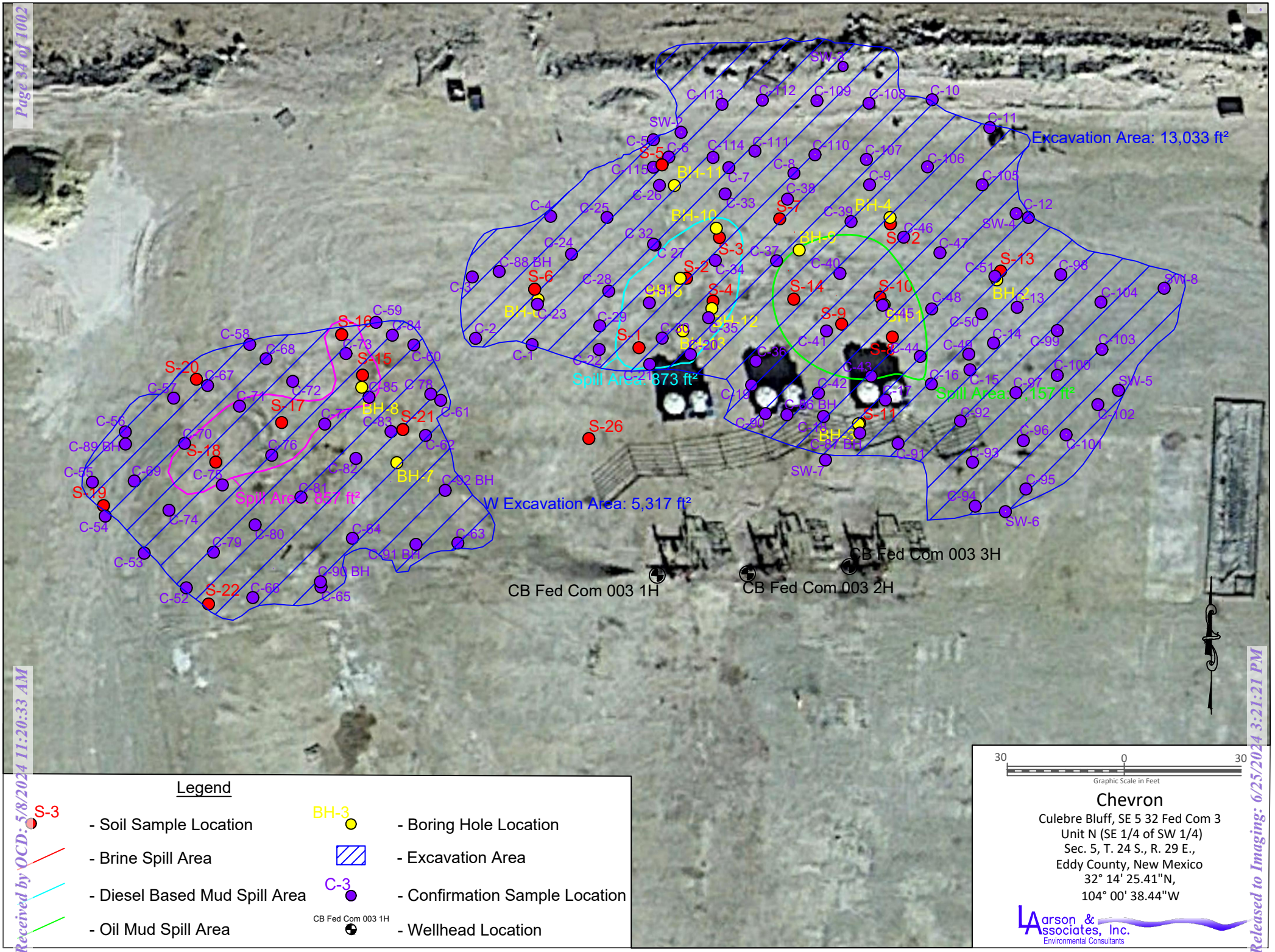


Figure 5 - Aerial Map Showing Confirmation Sample Locations, January 2022

Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:21:21 PM

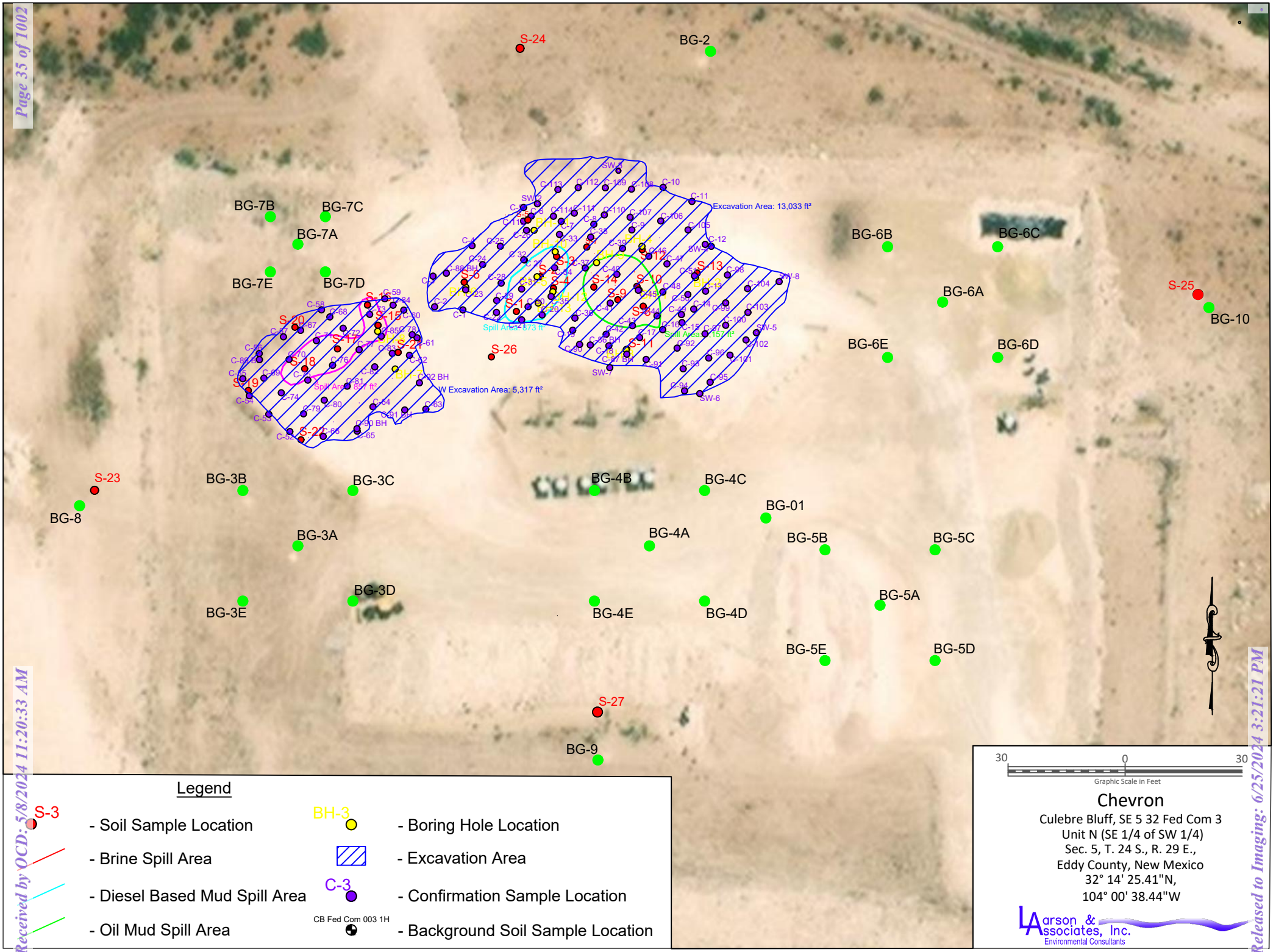


Figure 6 - Aerial Map Showing Confirmation Sample and Background Soil Samples

Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:21:21 PM

Page 36 of 1002

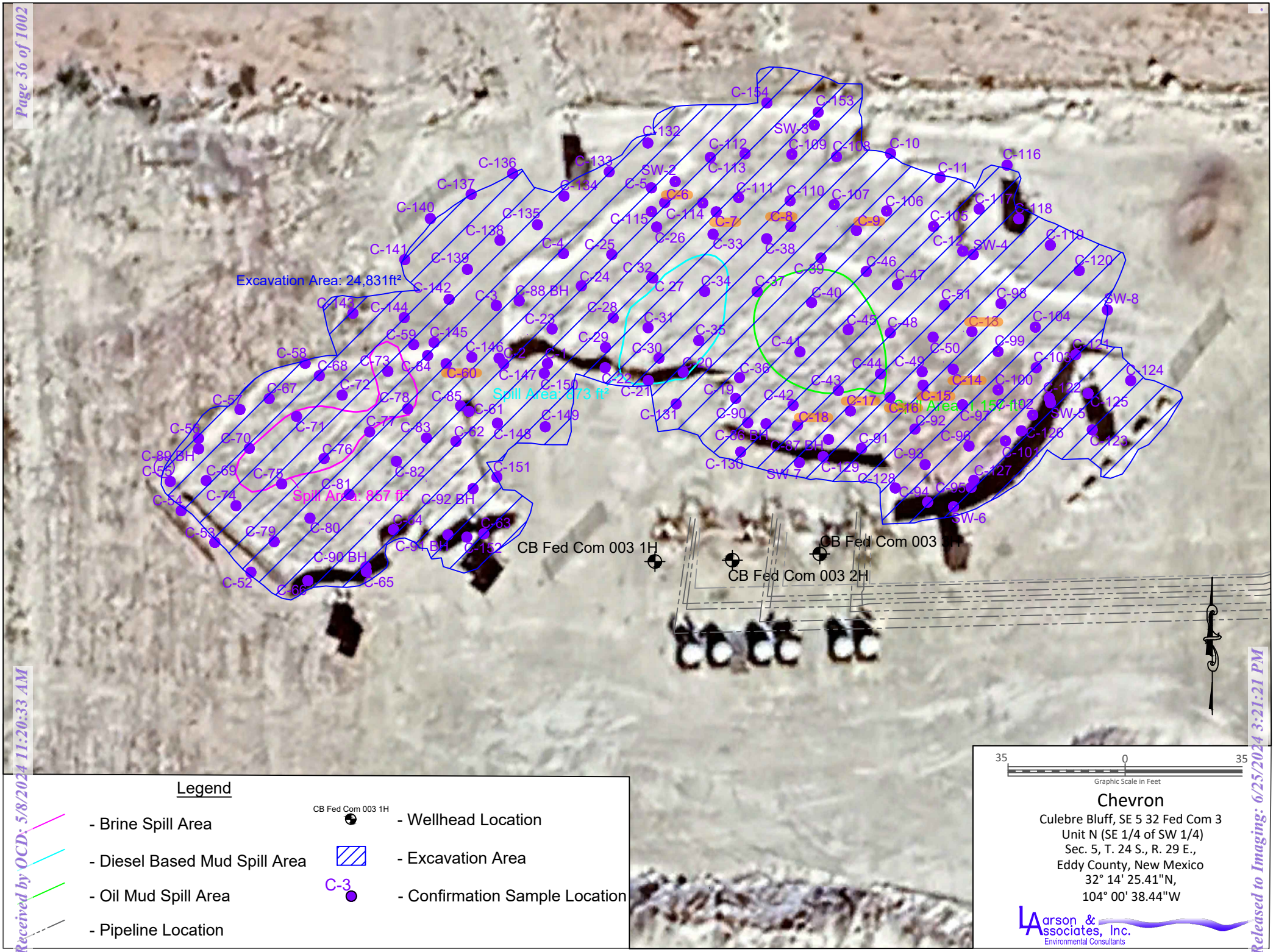


Figure 7 - Aerial Map Showing Confirmation Soil Sample Locations, February 2024

Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

Page 37 of 1002

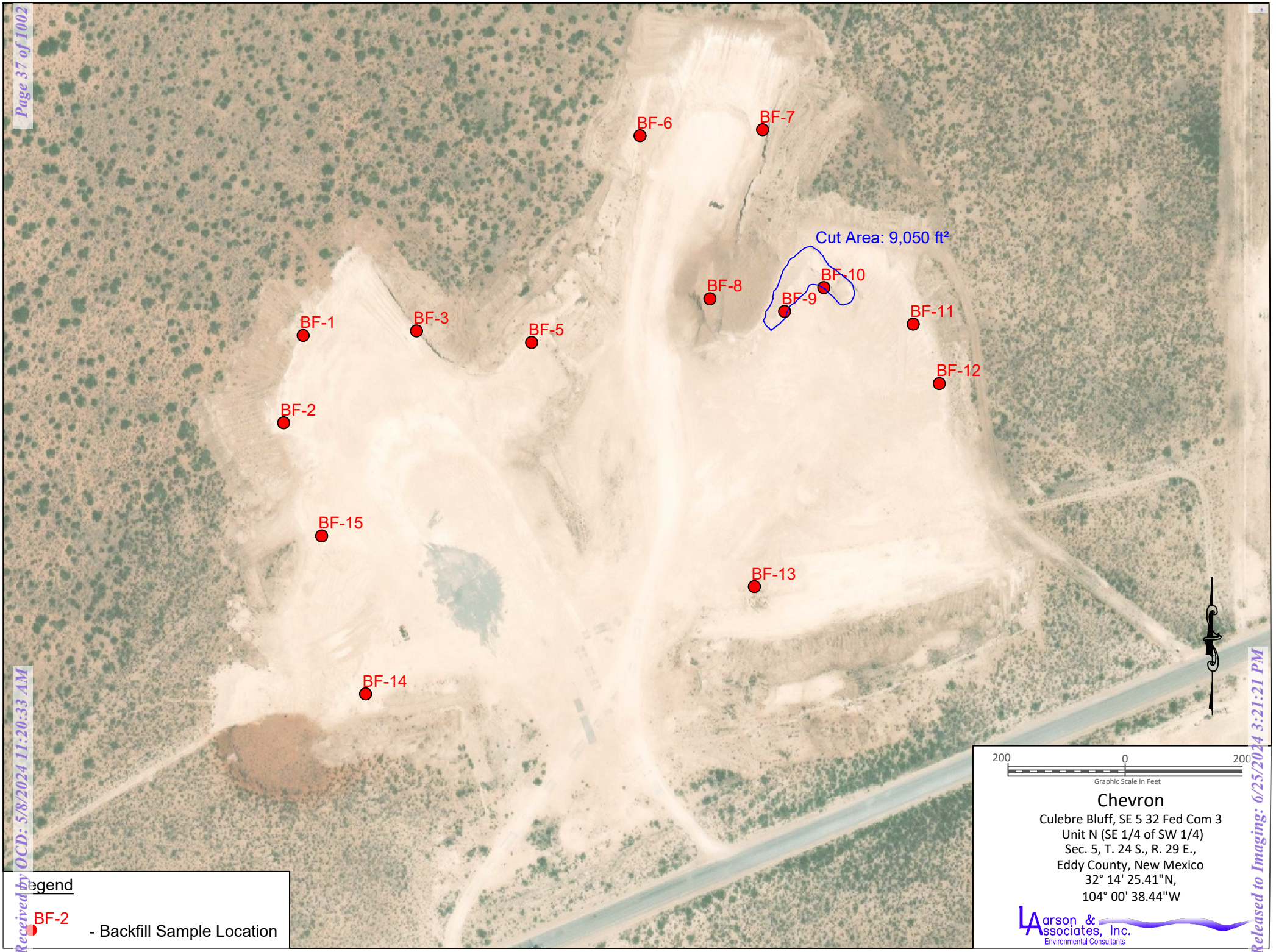


Figure 8 - Aerial Map Showing Backfill Sample Locations

Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

# Appendix A

## Initial C-141's and Chevron Spill Calculations

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

# Release Notification

## Responsible Party

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

## Location of Release Source

Latitude 32.240347 Longitude -104.010042

*(NAD 83 in decimal degrees to 5 decimal places)*

| | |
|---|---|
| Site Name: CB SE 5 32 Federal Com 3 #003H Drilling Rig – Patterson 257 | Site Type: Gas |
| Date Release Discovered: 02/01/2019 | API# *(if applicable): 30-015-44976* |

| Unit Letter | Section | Township | Range | County |
|---|---|---|---|---|
| N | 05 | 24S | 29E | 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) | 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)<br>Brine Water | Volume/Weight Released (provide units):<br>10 barrels | Volume/Weight Recovered (provide units):<br>7 barrels |

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

Cause of Release:

While transferring brine from vacuum truck to storage tank, tank overfilled and leaked from secondary lined containment to rig pad ground.

| | |
|---|---|
| Was this a major release as defined by 19.15.29.7(A) NMAC?<br><br>☐ Yes ☒ No | If YES, for what reason(s) does the responsible party consider this a major release?<br><br>Did not exceed 25 barrels for verbal notification. |

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.

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

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

Signature: JdeLeon Date: **February 21, 2019**

Printed Name: **Josepha DeLeon** Title: **Environmental Compliance Specialist.**

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

**OCD Only**

Received by: _____ Date**:** _____

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

# Release Notification

## Responsible Party

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

## Location of Release Source

Latitude 32.240347 Longitude -104.010042

*(NAD 83 in decimal degrees to 5 decimal places)*

| | |
|---|---|
| Site Name: CB SE 5 32 Federal Com 3 #003H Drilling Rig – Patterson 257 | Site Type: Gas |
| Date Release Discovered: 02/20/2019 | API# *(if applicable): 30-015-44976* |

| Unit Letter | Section | Township | Range | County |
|---|---|---|---|---|
| N | 05 | 24S | 29E | 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) | 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)<br>Oil Based Mud | Volume/Weight Released (provide units):<br>27.30 barrels | Volume/Weight Recovered (provide units):<br>27.30 barrels |

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

Cause of Release:

Cuttings box door was not properly secured, spilled oil based mud to secondary containment (lined drill pad). Liner integrity was confirmed to be intact and all was recovered (see attached picture)

| | |
|---|---|
| Was this a major release as defined by 19.15.29.7(A) NMAC?<br><br>☒ Yes ☐ No | If YES, for what reason(s) does the responsible party consider this a major release?<br><br>Exceeded 25 barrels. |

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Verbal to Mike Bratcher (NMOCD) and Jim Amos (BLM), 2/20/2019

## 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.

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

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

Signature: JdeLeon Date: **February 26, 2019**

Printed Name: **Josepha DeLeon** Title: **Environmental Compliance Specialist.**

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

**OCD Only**

Received by: _____ Date**:** _____

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
District IV
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State of New Mexico
Energy Minerals and Natural Resources Department

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

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

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

# Release Notification

## Responsible Party

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

## Location of Release Source

Latitude 32.240347 Longitude -104.010042

*(NAD 83 in decimal degrees to 5 decimal places)*

| | |
|---|---|
| Site Name: CB SE 5 32 Federal Com 3 #003H | Site Type: Gas |
| Date Release Discovered: 01/10/2019 | API# *(if applicable): 30-015-44976* |

| Unit Letter | Section | Township | Range | County |
|---|---|---|---|---|
| N | 05 | 24S | 29E | 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) | 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) Water/Diesel Based Mud | Volume/Weight Released (provide units) 16 Barrels | Volume/Weight Recovered (provide units): 16 Barrels |

Cause of Release:

3" transfer hose swage fitting popped out causing release to secondary containment, lined drill pad. Liner was visually inspected and integrity of liner remains intact and had ability to contain leak. As stated in new regulation, liner will be inspected when rig moves out and NMOCD will be contacted.

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

| | |
|---|---|
| Was this a major release as defined by 19.15.29.7(A) NMAC?<br><br>☐ Yes ☒ No | If YES, for what reason(s) does the responsible party consider this a major release?<br><br>Did not exceed 25 barrels for verbal notification. |
| If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? | |

## Initial Response

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

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

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

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

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

Signature: JdeLeon Date: **January 24, 2019**

Printed Name: **Josepha DeLeon** Title: **Environmental Compliance Specialist.**

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

**OCD Only**

Received by: _____ Date: _____

# Appendix B

# Karst Risk Potential

Received by OCD: 5/8/2024 11:20:33 AM


*New Mexico Kart or No Karst - QGIS

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

Browser

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

Layers

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

Released to Imaging: 6/25/2024 3:21:21 PM

Type to locate (Ctrl+K)

Coordinate 592121,3568259 Scale 1:6275 Magnifier 100% Rotation 0.0 ° Render EPSG:26913

# Appendix C

# Boring Log

# BORING RECORD

Start: 11:33
Finish: 13:51

| GEOLOGIC UNIT | DEPTH | DESCRIPTION LITHOLOGIC | DESCRIPTION USCS | GRAPHIC LOG |
|---|---|---|---|---|
| | 0 | Caliche, 7.5YR 8/3, Pink, 1-10mm Angular Clasts, Poorly Sorted | Caliche | |
| | 5 | Sand, 7.5YR 8/3, Pink, Medium Quartz Sand, Poorly Sorted, 1-10mm Angular Clasts, Sandstone, Well Rounded Quartz | SandStone | |
| | 10 | | | |
| | 15 | 10YR 8/3, Very Pale Brown, Medium Quartz Sand, Poorly Sorted, 1-10mm Angular Clasts, Poorly Sorted, Sandstone, Well Rounded Quartz | | |
| | 20 | | | |
| | 25 | | | |
| | 30 | | | |
| | 35 | 10YR 7/4, Very Pale Brown, Fine Quartz Sand, Moderately Sorted, 1-3mm Angular Clasts, Sandstone, Well Rounded Quartz | | |
| | 40 | | | |
| | 45 | 7.5YR 7/8, Reddish Yellow, Well Sorted, Sandstone, Well Rounded | | |
| | 50 | Unconsolidated Silt, 10YR 7/4, Very Pale Brown, Well Sorted, Well Rounded | Silt | |
| | 55 | | | |
| | 60 | | | |
| | 65 | | | |

PID READING
PPM X _____
2 4 6 8 10 12 14 16 18

SAMPLE
NUMBER | PID READING | RECOVERY | DEPTH

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 )
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT )
NR NO RECOVERY

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 11/23/2020

BORING NUMBER : GWB-1

JOB NUMBER : Chevron/ 19-0180-07
HOLE DIAMETER : 5"
LOCATION : Culebra Bluff
LAI GEOLOGIST : R. Nelson
DRILLING CONTRACTOR : SDI
DRILLING METHOD : Air Rotary

# BORING RECORD

Start: 11:33
Finish: 13:51

| GEOLOGIC UNIT | DEPTH | DESCRIPTION LITHOLOGIC | DESCRIPTION USCS | GRAPHIC LOG |
|---|---|---|---|---|
| Groundwater at 70.30' | 70 | | | |
| | 75 | | | |
| | 80 | Unconsolidated Silt, 10YR 7/4, Very Pale Brown,1-5mm Subangular Clasts,Moderately Sorted, Well Rounded | Silt | |
| | 85 | | | |
| | 90 | | | |
| | 95 | | | |
| | 100 | | | |
| | 105 | | | |
| | 110 | | | |
| | 115 | TD: 115' | | |
| | 120 | | | |

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

SAMPLE: NUMBER | PID READING | RECOVERY | DEPTH

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 : 11/23/2020

BORING NUMBER : GWB-1

JOB NUMBER : Chevron/ 19-0180-07
HOLE DIAMETER : 5"
LOCATION : Culebra Bluff
LAI GEOLOGIST : R. Nelson
DRILLING CONTRACTOR : SDI
DRILLING METHOD : Air Rotary

# Appendix D

# NMOCD Communications

**From:** Billings, Bradford, EMNRD
**To:** Robert Nelson
**Cc:** Barnhill, Amy D.; Mark Larson
**Subject:** RE: [EXTERNAL] FW: Culebra Bluff SE 5 32 Fed Com (nAB1902541117 / nAB1906052173 / nAB1909160291) Background Sampling Approval
**Date:** Wednesday, August 24, 2022 2:47:13 PM
**Attachments:** image001.png

---

Exception:

Some samples should be taken off pad, from unaffected area(s) to work on proving your idea.

Bradford Billings
EMNRD/OCD

---

**From:** Robert Nelson <rnelson@laenvironmental.com>
**Sent:** Wednesday, August 24, 2022 1:27 PM
**To:** Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
**Cc:** Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>
**Subject:** [EXTERNAL] FW: Culebra Bluff SE 5 32 Fed Com (nAB1902541117 / nAB1906052173 / nAB1909160291) Background Sampling Approval

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

Bradford,

Per our conversation, LAI personnel will collect background composite soil samples over the pad measuring approximately 115,200 square feet at sample locations BG-1 through BG-5 (A through E) to confirm if elevated chloride concentrations exist throughout the entirety of the production pad. Analytical results will be presented to the OCD and a variance will be requested if elevated chloride concentrations are reported throughout the production pad. If you could please confirm this is an accurate representation of our telephone conversation.

Thank you,

Robert Nelson
Sr. Geologist
Office – 432-687-0901
Cell – 432-664-4804
rnelson@laenvironmental.com
Larson & Associates, Inc.
Environmental Consultants

---

**From:** Robert Nelson
**Sent:** Wednesday, August 10, 2022 8:25 AM

**To:** 'Bradford.Billings@state.nm.us' <bradford.billings@state.nm.us>
**Cc:** Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>
**Subject:** FW: Culebra Bluff SE 5 32 Fed Com (nAB1902541117 / nAB1906052173 / nAB1909160291) Background Sampling Approval

Hello Bradford:

I'm following up on an email sent on July 28th on behalf of Chevron regarding a variance request for background sampling at the Culebra Bluff SE 5 32 Fed Com (nAB1902541117 / nAB1906052173 / nAB1909160291). If you could provide us a status of this request or if we're approved to proceed we would greatly appreciate it. If you have any questions or wish to discuss please let us know.

Thank you,

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

---

**From:** Robert Nelson
**Sent:** Thursday, July 28, 2022 7:58 AM
**To:** 'Bradford.Billings@state.nm.us' <bradford.billings@state.nm.us>
**Cc:** Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>
**Subject:** Culebra Bluff SE 5 32 Fed Com (nAB1902541117 / nAB1906052173 / nAB1909160291) Background Sampling Approval

Hello Mr. Billings,

Beginning in January 2022, LAI personnel supervised the excavation at the Culebra Bluff SE 5 32 Fed Com 3 (nAB1902541117 / nAB1906052173 / nAB1909160291) (Site) in Eddy County, New Mexico. On January 7 and 12, 2022 eighty-three (83) bottom and sidewall confirmation soil samples were collected from within the excavated area. Laboratory analysis reported numerous bottom and sidewall samples above the NMOCD closure criteria. Further excavation was conducted in March 2022. LAI personnel began field testing the sidewall samples concurrent with excavation activities to determine the lateral extent of soil requiring removal at sample locations C-5 through C-16. The excavation encompassing the diesel-based mud spill area and oil -based mud spill area was extended an additional 25 to 35 feet east and north. Laboratory analysis reported C-10 and C-11 below the NMOCD closure criteria, where C-12 remained above the NMOCD closure criteria. Field analysis of the remaining sidewall soil samples reported concentrations above the NMOCD closure criteria and were not submitted for laboratory analysis.

On May 4, 2022, LAI personnel used the Geoprobe 7822 DT direct push rig to collect background delineation soil samples (BG-1 and BG-2) approximately 50 feet southeast on the production pad and north of the excavation in the pasture, respectively. Laboratory analysis of sample BG-1 reported chloride concentrations above the NMOCD delineation/closure criteria (600 mg/Kg) at a depth of approximately three (3) feet below ground surface (bgs) at 810 mg/Kg, the highest chloride concentration reported on the production pad.

LAI requests approval from the NMOCD to collect additional background composite soil samples over the pad at sample locations BG-1 through BG-5 (A through E) to confirm if elevated chloride concentrations exist throughout the entirety of the production pad. LAI on behalf of Chevron would like to request a variance from the NMOCD if elevated chloride concentrations are reported throughout the production pad. Groundwater occurs at a depth of approximately 70.30 feet below ground surface (bgs) based on a boring drilled to 115 feet, and gauged 72 hours after drilling. Please find attached the confirmation sample data summary (Table 2), background delineation data summary (Table 3), and aerial map showing excavation locations, confirmation samples, and background sample locations. Please let Amy Barnhill with Chevron at ABarnhill@Chevron.com, Mark Larson (432-556-8656) or mark@laenvironmental.com, or me know if you have any questions or wish to discuss further.

Thank you,

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

**From:** Billings, Bradford, EMNRD
**To:** Robert Nelson
**Cc:** Barnhill, Amy D.; Mark Larson
**Subject:** RE: [EXTERNAL] RE: Confirmation of Telephone Conversation, Chevron Culebra Bluff (nAB1902541117, nAB1906052173, and nAB1909160291)
**Date:** Tuesday, January 25, 2022 9:21:42 AM
**Attachments:** image001.png

Hi,

If GW is between 51 and 100 feet bgs one can use the middle Tier for clean-up criteria for soils, which among other aspects are 2,500 mg/kg Total TPH (MRO, DRO and GRO) and chlorides of 10,000 mg/kg or less. Top four feet is different as you know, wherein, basically one uses the top tier from Table I for restoration/reclamation values.

Hope this helps.

Bradford Billings
EMNRD/OCD

---

**From:** Robert Nelson <rnelson@laenvironmental.com>
**Sent:** Tuesday, January 25, 2022 7:04 AM
**To:** Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
**Cc:** Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>
**Subject:** [EXTERNAL] RE: Confirmation of Telephone Conversation, Chevron Culebra Bluff (nAB1902541117, nAB1906052173, and nAB1909160291)

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

Hello Bradford,

Per the email below dated May 4, 2021, the reported depth of groundwater at the Culebra Bluff (nAB1902541117, nAB1906052173, and nAB1909160291) about 70 feet bgs is adequate to calculate the closure criteria. Laboratory analysis of thirty five (35) confirmation soil samples collected at 4.1 feet below ground surface (bgs) reported TPH and/or chloride concentrations above 100 mg/Kg and 600 mg/Kg, respectively. Please advise if the cleanup level is 2,500 mg/kg (TPH) and 10,000 mg/Kg (chloride) for groundwater greater than 50 feet bgs.

Thank you,

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

**From:** Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
**Sent:** Tuesday, May 4, 2021 9:14 AM
**To:** Robert Nelson <rnelson@laenvironmental.com>
**Cc:** Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>
**Subject:** RE: Confirmation of Telephone Conversation, Chevron Culebra Bluff (nAB1902541117, nAB1906052173, and nAB1909160291)

Hello All,

Based on conversation indicated below, the following:

Current data and provided information is indicative of the incident being satisfactorily vertically delineated, and the reported depth of groundwater at about 70 feet is adequate to calculate closure criteria.

Overall chloride values reported at depth do suggest a potential that a value of 300-600 ppm is common is soils not impacted by the reported incident. Please make sure that the 600 ppm value for chloride in soils is used to generate excavation procedure and outcomes.

Thank you for your time and effort.

Sincerely,

Bradford Billings
EMNRD/OCD

**From:** Robert Nelson <rnelson@laenvironmental.com>
**Sent:** Tuesday, May 4, 2021 7:38 AM
**To:** Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
**Cc:** Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>
**Subject:** [EXT] Confirmation of Telephone Conversation, Chevron Culebra Bluff (nAB1902541117, nAB1906052173, and nAB1909160291)

Hello Bradford,

Per our conversation, Chevron USA, Inc. (Chevron) will remediate the areas encompassing sample locations BH-1 and BH-2 to a depth of six (6) feet below ground surface (bgs) where laboratory analysis indicated chloride concentrations above the OCD delineation limit of 600 mg/Kg. Elevated chloride concentrations at BH-2 at depths of 60, 65, and 70 feet below ground surface (bgs) have the potential to be influenced by the nearby potash mine located about 0.46 miles northwest. The chloride concentrations from BH-1 and BH-2 at the depth interval between about 25 and 55 feet bgs

display concentrations that are analogous to the concentrations between about 60 and 70 feet bgs. Additionally, Chevron will remediate the spill area in accordance with NMOCD closure criteria for groundwater at 70.30 feet bgs. Chevron requests concurrence from the OCD for the chloride delineation at sample location BH-2 to be fully delineated. Please let me know if this accurately presents our conversation and respond with your approval, if correct. I've attached the proposed excavation map for your reference. Please contact Amy Barnhill with Chevron at (432) 687-7108 or ABarnhill@chevron.com, Mark Larson at (432) 687-0901 or mark@laenviormental.com or me if you have any questions.

Respectfully,

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

**From:** Billings, Bradford, EMNRD
**To:** Robert Nelson
**Cc:** Barnhill, Amy D.; Mark Larson
**Subject:** RE: Confirmation of Telephone Conversation, Chevron Culebra Bluff (nAB1902541117, nAB1906052173, and nAB1909160291)
**Date:** Tuesday, May 4, 2021 9:13:50 AM
**Attachments:** image001.png

---

Hello All,

Based on conversation indicated below, the following:

Current data and provided information is indicative of the incident being satisfactorily vertically delineated, and the reported depth of groundwater at about 70 feet is adequate to calculate closure criteria.

Overall chloride values reported at depth do suggest a potential that a value of 300-600 ppm is common is soils not impacted by the reported incident. Please make sure that the 600 ppm value for chloride in soils is used to generate excavation procedure and outcomes.

Thank you for your time and effort.

Sincerely,

Bradford Billings
EMNRD/OCD

---

**From:** Robert Nelson <rnelson@laenvironmental.com>
**Sent:** Tuesday, May 4, 2021 7:38 AM
**To:** Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
**Cc:** Barnhill, Amy D. <ABarnhill@chevron.com>; Mark Larson <Mark@laenvironmental.com>
**Subject:** [EXT] Confirmation of Telephone Conversation, Chevron Culebra Bluff (nAB1902541117, nAB1906052173, and nAB1909160291)

Hello Bradford,

Per our conversation, Chevron USA, Inc. (Chevron) will remediate the areas encompassing sample locations BH-1 and BH-2 to a depth of six (6) feet below ground surface (bgs) where laboratory analysis indicated chloride concentrations above the OCD delineation limit of 600 mg/Kg. Elevated chloride concentrations at BH-2 at depths of 60, 65, and 70 feet below ground surface (bgs) have the potential to be influenced by the nearby potash mine located about 0.46 miles northwest. The chloride concentrations from BH-1 and BH-2 at the depth interval between about 25 and 55 feet bgs display concentrations that are analogous to the concentrations between about 60 and 70 feet bgs. Additionally, Chevron will remediate the spill area in accordance with NMOCD closure criteria for groundwater at 70.30 feet bgs. Chevron requests concurrence from the OCD for the chloride delineation at sample location BH-2 to be fully delineated. Please let me know if this accurately presents our conversation and respond with your approval, if correct. I've attached the proposed

excavation map for your reference. Please contact Amy Barnhill with Chevron at (432) 687-7108 or ABarnhill@chevron.com, Mark Larson at (432) 687-0901 or mark@laenviormental.com or me if you have any questions.

Respectfully,

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

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

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

QUESTIONS

Action 310387

## QUESTIONS

| | |
|---|---|
| Operator:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
| | Action Number:<br>310387 |
| | Action Type:<br>[NOTIFY] Notification Of Sampling (C-141N) |

**QUESTIONS**

| **Prerequisites** | |
|---|---|
| Incident ID (n#) | **nAB1902541117** |
| Incident Name | **NAB1902541117 CB SE 5 32 FEDERAL COM 3 #003H @ 30-015-44976** |
| Incident Type | **Release Other** |
| Incident Status | **Initial C-141 Approved** |
| Incident Well | **[30-015-44976] CB SE 5 32 FEDERAL COM 3 #003H** |

| **Location of Release Source** | |
|---|---|
| Site Name | **CB SE 5 32 FEDERAL COM 3 #003H** |
| Date Release Discovered | **01/10/2019** |
| Surface Owner | **Federal** |

| **Sampling Event General Information**<br>*Please answer all the questions in this group.* | |
|---|---|
| What is the sampling surface area in square feet | 5,000 |
| What is the estimated number of samples that will be gathered | 25 |
| Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC | 02/06/2024 |
| Time sampling will commence | 09:00 AM |
| Please provide any information necessary for observers to contact samplers | Robert Nelson 432-687-0901 |
| Please provide any information necessary for navigation to sampling site | 32.240410, -104.010122 |

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



## CONDITIONS

| | |
|---|---|
| Operator:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
| | Action Number:<br>310387 |
| | Action Type:<br>[NOTIFY] Notification Of Sampling (C-141N) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| abarnhill | Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted. | 2/1/2024 |

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

QUESTIONS

Action 310388

## QUESTIONS

| | |
|---|---|
| Operator:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
| | Action Number:<br>310388 |
| | Action Type:<br>[NOTIFY] Notification Of Sampling (C-141N) |

**QUESTIONS**

| **Prerequisites** | |
|---|---|
| Incident ID (n#) | **nAB1906052173** |
| Incident Name | **NAB1906052173 CB SE 5 32 FEDERAL COM 3 #003H @ 30-015-44976** |
| Incident Type | **Release Other** |
| Incident Status | **Initial C-141 Received** |
| Incident Well | **[30-015-44976] CB SE 5 32 FEDERAL COM 3 #003H** |

| **Location of Release Source** | |
|---|---|
| Site Name | **CB SE 5 32 FEDERAL COM 3 #003H** |
| Date Release Discovered | **02/01/2019** |
| Surface Owner | **Federal** |

| **Sampling Event General Information**<br>*Please answer all the questions in this group.* | |
|---|---|
| What is the sampling surface area in square feet | 5,000 |
| What is the estimated number of samples that will be gathered | 25 |
| Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC | 02/06/2024 |
| Time sampling will commence | 09:00 AM |
| Please provide any information necessary for observers to contact samplers | Robert Nelson 432-687-0901 |
| Please provide any information necessary for navigation to sampling site | 32.240410, -104.010122 |

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# Energy, Minerals and Natural Resources
# Oil Conservation Division
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# Santa Fe, NM 87505



## CONDITIONS

| | |
|---|---|
| Operator:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
| | Action Number:<br>310388 |
| | Action Type:<br>[NOTIFY] Notification Of Sampling (C-141N) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| abarnhill | Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted. | 2/1/2024 |

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

QUESTIONS

Action 310393

## QUESTIONS

| | |
|---|---|
| Operator:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
| | Action Number:<br>310393 |
| | Action Type:<br>[NOTIFY] Notification Of Sampling (C-141N) |

**QUESTIONS**

| **Prerequisites** | |
|---|---|
| Incident ID (n#) | **nAB1909160291** |
| Incident Name | **NAB1909160291 CULEBRA BLUFF SE 5 32 FED. COM 3 #003H @ 30-015-44976** |
| Incident Type | **Release Other** |
| Incident Status | **Initial C-141 Approved** |
| Incident Well | **[30-015-44976] CB SE 5 32 FEDERAL COM 3 #003H** |

| **Location of Release Source** | |
|---|---|
| Site Name | **CULEBRA BLUFF SE 5 32 FED. COM 3 #003H** |
| Date Release Discovered | **02/20/2019** |
| Surface Owner | **Federal** |

| **Sampling Event General Information**<br>*Please answer all the questions in this group.* | |
|---|---|
| What is the sampling surface area in square feet | 5,000 |
| What is the estimated number of samples that will be gathered | 25 |
| Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC | 02/06/2024 |
| Time sampling will commence | 09:00 AM |
| Please provide any information necessary for observers to contact samplers | 432-687-0901 Robert Nelson |
| Please provide any information necessary for navigation to sampling site | 32.240410, -104.010122 |

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# Energy, Minerals and Natural Resources
# Oil Conservation Division
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# Santa Fe, NM 87505



## CONDITIONS

| | |
|---|---|
| Operator:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
| | Action Number:<br>310393 |
| | Action Type:<br>[NOTIFY] Notification Of Sampling (C-141N) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| abarnhill | Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted. | 2/1/2024 |

# Appendix E

# Laboratory Reports

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

PBELAB

# Analytical Report

**Prepared for:**

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Chevron-Culebra Bluff

Project Number: 19-0180-07

Location: NM

Lab Order Number: 9K19001

NELAP ACCREDITED TNI LABORATORY

**NELAP/TCEQ # T104704516-17-8**

Report Date: 12/05/19

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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| S-1 | 9K19001-01 | Soil | 11/18/19 11:30 | 11-19-2019 09:00 |
| S-2 | 9K19001-02 | Soil | 11/18/19 11:31 | 11-19-2019 09:00 |
| S-3 | 9K19001-03 | Soil | 11/18/19 11:32 | 11-19-2019 09:00 |
| S-4 | 9K19001-04 | Soil | 11/18/19 11:33 | 11-19-2019 09:00 |
| S-5 | 9K19001-05 | Soil | 11/18/19 11:34 | 11-19-2019 09:00 |
| S-6 | 9K19001-06 | Soil | 11/18/19 11:37 | 11-19-2019 09:00 |
| S-7 | 9K19001-07 | Soil | 11/18/19 11:40 | 11-19-2019 09:00 |
| S-8 | 9K19001-08 | Soil | 11/18/19 12:29 | 11-19-2019 09:00 |
| S-9 | 9K19001-09 | Soil | 11/18/19 12:31 | 11-19-2019 09:00 |
| S-10 | 9K19001-10 | Soil | 11/18/19 12:38 | 11-19-2019 09:00 |
| S-11 | 9K19001-11 | Soil | 11/18/19 12:39 | 11-19-2019 09:00 |
| S-12 | 9K19001-12 | Soil | 11/18/19 12:42 | 11-19-2019 09:00 |
| S-13 | 9K19001-13 | Soil | 11/18/19 12:44 | 11-19-2019 09:00 |
| S-14 | 9K19001-14 | Soil | 11/18/19 12:47 | 11-19-2019 09:00 |
| S-15 | 9K19001-15 | Soil | 11/18/19 12:58 | 11-19-2019 09:00 |
| S-16 | 9K19001-16 | Soil | 11/18/19 13:00 | 11-19-2019 09:00 |
| S-17 | 9K19001-17 | Soil | 11/18/19 13:02 | 11-19-2019 09:00 |
| S-18 | 9K19001-18 | Soil | 11/18/19 13:04 | 11-19-2019 09:00 |
| S-19 | 9K19001-19 | Soil | 11/18/19 13:08 | 11-19-2019 09:00 |
| S-20 | 9K19001-20 | Soil | 11/18/19 13:10 | 11-19-2019 09:00 |
| S-21 | 9K19001-21 | Soil | 11/18/19 13:11 | 11-19-2019 09:00 |
| S-22 | 9K19001-22 | Soil | 11/18/19 13:15 | 11-19-2019 09:00 |

| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-1

**9K19001-01 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *106 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *115 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **3790** | 5.32 | mg/kg dry | 5 | P9K2714 | 11/27/19 | 11/30/19 | EPA 300.0 | |
| **% Moisture** | **6.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.6 | mg/kg dry | 1 | P9K2006 | 11/20/19 | 11/22/19 | TPH 8015M | |
| >C12-C28 | ND | 26.6 | mg/kg dry | 1 | P9K2006 | 11/20/19 | 11/22/19 | TPH 8015M | |
| >C28-C35 | ND | 26.6 | mg/kg dry | 1 | P9K2006 | 11/20/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *104 %* | *70-130* | | *P9K2006* | *11/20/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *113 %* | *70-130* | | *P9K2006* | *11/20/19* | *11/22/19* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 26.6 | mg/kg dry | 1 | [CALC] | 11/20/19 | 11/22/19 | calc | |



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

| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

**S-2**

**9K19001-02 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *91.1 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *93.8 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1790** | 5.32 | mg/kg dry | 5 | P9K2714 | 11/27/19 | 11/30/19 | EPA 300.0 | |
| **% Moisture** | **6.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| **C6-C12** | **403** | 266 | mg/kg dry | 10 | P9K2207 | 11/22/19 | 11/26/19 | TPH 8015M | |
| **>C12-C28** | **13700** | 266 | mg/kg dry | 10 | P9K2207 | 11/22/19 | 11/26/19 | TPH 8015M | |
| **>C28-C35** | **393** | 266 | mg/kg dry | 10 | P9K2207 | 11/22/19 | 11/26/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *104 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/26/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *138 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/26/19* | *TPH 8015M* | *S-GC* |
| **Total Petroleum Hydrocarbon C6-C35** | **14500** | 266 | mg/kg dry | 10 | [CALC] | 11/22/19 | 11/26/19 | calc | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## S-3

**9K19001-03 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *104 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *102 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1540** | 5.26 | mg/kg dry | 5 | P9K2714 | 11/27/19 | 11/30/19 | EPA 300.0 | |
| **% Moisture** | **5.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **183** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **52.9** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *120 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *132 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | *S-GC* |
| **Total Petroleum Hydrocarbon C6-C35** | **236** | 26.3 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-4

**9K19001-04 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *110 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *106 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **6770** | 10.9 | mg/kg dry | 10 | P9K2714 | 11/27/19 | 12/01/19 | EPA 300.0 | |
| **% Moisture** | **8.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 27.2 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **2190** | 27.2 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **1070** | 27.2 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *121 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *136 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | *S-GC* |
| **Total Petroleum Hydrocarbon C6-C35** | **3260** | 27.2 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-5

**9K19001-05 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *111 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *107 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1610** | 10.4 | mg/kg dry | 10 | P9K2714 | 11/27/19 | 12/01/19 | EPA 300.0 | |
| **% Moisture** | **4.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.0 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **139** | 26.0 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **59.1** | 26.0 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *109 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *117 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **198** | 26.0 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## S-6

**9K19001-06 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *110 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *106 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **5550** | 10.5 | mg/kg dry | 10 | P9K2714 | 11/27/19 | 12/01/19 | EPA 300.0 | |
| **% Moisture** | **5.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **417** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **110** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *87.9 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *92.2 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **527** | 26.3 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

**S-7**

**9K19001-07 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *117 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *105 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **7130** | 11.0 | mg/kg dry | 10 | P9K2714 | 11/27/19 | 12/01/19 | EPA 300.0 | |
| **% Moisture** | **9.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 27.5 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **243** | 27.5 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **87.2** | 27.5 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *89.8 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *95.0 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **330** | 27.5 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

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## S-8

**9K19001-08 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *111 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *98.9 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **2940** | 5.26 | mg/kg dry | 5 | P9K2714 | 11/27/19 | 12/01/19 | EPA 300.0 | |
| **% Moisture** | **5.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **84.3** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **28.9** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *84.6 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *89.3 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **113** | 26.3 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

**S-9**

**9K19001-09 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *106 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *103 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **6350** | 10.6 | mg/kg dry | 10 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **6.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.6 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **189** | 26.6 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **76.0** | 26.6 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *80.2 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *85.8 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **265** | 26.6 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-10

**9K19001-10 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *110 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *98.9 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **5120** | 10.5 | mg/kg dry | 10 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **5.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **139** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **55.4** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *78.1 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *83.8 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **194** | 26.3 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## S-11

**9K19001-11 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *106 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *85.5 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1160** | 5.21 | mg/kg dry | 5 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **4.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.0 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **162** | 26.0 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **67.1** | 26.0 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *83.6 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *89.1 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **229** | 26.0 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-12

**9K19001-12 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *126 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | *S-GC* |
| *Surrogate: 1,4-Difluorobenzene* | | *107 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1330** | 5.21 | mg/kg dry | 5 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **4.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.0 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **432** | 26.0 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **144** | 26.0 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *82.7 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *87.7 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **575** | 26.0 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-13

**9K19001-13 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *106 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *94.1 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **3720** | 10.3 | mg/kg dry | 10 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **3.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 25.8 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **410** | 25.8 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **135** | 25.8 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *73.3 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *79.7 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **545** | 25.8 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-14

**9K19001-14 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *111 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *96.1 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **640** | 1.09 | mg/kg dry | 1 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **8.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 27.2 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **42.8** | 27.2 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| >C28-C35 | ND | 27.2 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *86.9 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *93.4 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **42.8** | 27.2 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-15

**9K19001-15 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *110 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *111 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **2520** | 10.6 | mg/kg dry | 10 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **6.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.6 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **1270** | 26.6 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **342** | 26.6 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *85.2 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *99.1 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **1610** | 26.6 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## S-16

### 9K19001-16 (Soil)

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *90.6 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *93.6 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **7360** | 10.4 | mg/kg dry | 10 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **4.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 260 | mg/kg dry | 10 | P9K2207 | 11/22/19 | 11/26/19 | TPH 8015M | |
| **>C12-C28** | **24000** | 260 | mg/kg dry | 10 | P9K2207 | 11/22/19 | 11/26/19 | TPH 8015M | |
| **>C28-C35** | **3460** | 260 | mg/kg dry | 10 | P9K2207 | 11/22/19 | 11/26/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *85.4 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/26/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *127 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/26/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **27500** | 260 | mg/kg dry | 10 | [CALC] | 11/22/19 | 11/26/19 | calc | |



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| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-17

**9K19001-17 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *104 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *94.7 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **10700** | 10.9 | mg/kg dry | 10 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **8.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 27.2 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **1320** | 27.2 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **247** | 27.2 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *89.3 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *101 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **1570** | 27.2 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-18

**9K19001-18 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2103 | 11/21/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *92.0 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *86.8 %* | *75-125* | | *P9K2103* | *11/21/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **7090** | 10.8 | mg/kg dry | 10 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **7.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.9 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **433** | 26.9 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **71.2** | 26.9 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *76.8 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *85.0 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **504** | 26.9 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-19

**9K19001-19 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *108 %* | *75-125* | | *P9K2203* | *11/22/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *87.9 %* | *75-125* | | *P9K2203* | *11/22/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1120** | 5.15 | mg/kg dry | 5 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **3.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 25.8 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **363** | 25.8 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **94.6** | 25.8 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *98.3 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *103 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **458** | 25.8 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## S-20

### 9K19001-20 (Soil)

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *107 %* | *75-125* | | *P9K2203* | *11/22/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *91.5 %* | *75-125* | | *P9K2203* | *11/22/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **5590** | 10.5 | mg/kg dry | 10 | P9K3002 | 11/30/19 | 12/02/19 | EPA 300.0 | |
| **% Moisture** | **5.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| **C6-C12** | **29.3** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C12-C28** | **4730** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| **>C28-C35** | **584** | 26.3 | mg/kg dry | 1 | P9K2207 | 11/22/19 | 11/22/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *82.3 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *93.7 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/22/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **5340** | 26.3 | mg/kg dry | 1 | [CALC] | 11/22/19 | 11/22/19 | calc | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

**S-21**

**9K19001-21 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *101 %* | *75-125* | | *P9K2203* | *11/22/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *114 %* | *75-125* | | *P9K2203* | *11/22/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **4720** | 10.6 | mg/kg dry | 10 | P9L0311 | 12/03/19 | 12/03/19 | EPA 300.0 | |
| **% Moisture** | **6.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 266 | mg/kg dry | 10 | P9K2207 | 11/22/19 | 11/26/19 | TPH 8015M | |
| **>C12-C28** | **15000** | 266 | mg/kg dry | 10 | P9K2207 | 11/22/19 | 11/26/19 | TPH 8015M | |
| **>C28-C35** | **1490** | 266 | mg/kg dry | 10 | P9K2207 | 11/22/19 | 11/26/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *89.7 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/26/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *110 %* | *70-130* | | *P9K2207* | *11/22/19* | *11/26/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **16500** | 266 | mg/kg dry | 10 | [CALC] | 11/22/19 | 11/26/19 | calc | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## S-22

**9K19001-22 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Organics by GC** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Toluene | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00200 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| Xylene (o) | ND | 0.00100 | mg/kg dry | 1 | P9K2203 | 11/22/19 | 11/22/19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *106 %* | *75-125* | | *P9K2203* | *11/22/19* | *11/22/19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *99.8 %* | *75-125* | | *P9K2203* | *11/22/19* | *11/22/19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **3270** | 10.6 | mg/kg dry | 10 | P9L0311 | 12/03/19 | 12/03/19 | EPA 300.0 | |
| **% Moisture** | **6.0** | 0.1 | % | 1 | P9K2001 | 11/20/19 | 11/20/19 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 133 | mg/kg dry | 5 | P9K2208 | 11/22/19 | 11/26/19 | TPH 8015M | |
| **>C12-C28** | **10500** | 133 | mg/kg dry | 5 | P9K2208 | 11/22/19 | 11/26/19 | TPH 8015M | |
| **>C28-C35** | **1520** | 133 | mg/kg dry | 5 | P9K2208 | 11/22/19 | 11/26/19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *106 %* | *70-130* | | *P9K2208* | *11/22/19* | *11/26/19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *125 %* | *70-130* | | *P9K2208* | *11/22/19* | *11/26/19* | *TPH 8015M* | |
| **Total Petroleum Hydrocarbon C6-C35** | **12000** | 133 | mg/kg dry | 5 | [CALC] | 11/22/19 | 11/26/19 | calc | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## Organics by GC - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2103 - General Preparation (GC)** | | | | | | | | | | |
| **Blank (P9K2103-BLK1)** | | | | Prepared & Analyzed: 11/21/19 | | | | | | |
| Benzene | ND | 0.00100 | mg/kg wet | | | | | | | |
| Toluene | ND | 0.00100 | " | | | | | | | |
| Ethylbenzene | ND | 0.00200 | " | | | | | | | |
| Xylene (p/m) | ND | 0.00100 | " | | | | | | | |
| Xylene (o) | ND | 0.00100 | " | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.128* | | *"* | *0.120* | | *107* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.126* | | *"* | *0.120* | | *105* | *75-125* | | | |
| **LCS (P9K2103-BS1)** | | | | Prepared & Analyzed: 11/21/19 | | | | | | |
| Benzene | 0.0925 | 0.00100 | mg/kg wet | 0.100 | | 92.5 | 80-120 | | | |
| Toluene | 0.0973 | 0.00100 | " | 0.100 | | 97.3 | 80-120 | | | |
| Ethylbenzene | 0.110 | 0.00200 | " | 0.100 | | 110 | 80-120 | | | |
| Xylene (p/m) | 0.178 | 0.00100 | " | 0.200 | | 89.2 | 80-120 | | | |
| Xylene (o) | 0.0966 | 0.00100 | " | 0.100 | | 96.6 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.115* | | *"* | *0.120* | | *96.1* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.122* | | *"* | *0.120* | | *102* | *75-125* | | | |
| **LCS Dup (P9K2103-BSD1)** | | | | Prepared & Analyzed: 11/21/19 | | | | | | |
| Benzene | 0.0945 | 0.00100 | mg/kg wet | 0.100 | | 94.5 | 80-120 | 2.17 | 20 | |
| Toluene | 0.0972 | 0.00100 | " | 0.100 | | 97.2 | 80-120 | 0.113 | 20 | |
| Ethylbenzene | 0.107 | 0.00200 | " | 0.100 | | 107 | 80-120 | 2.71 | 20 | |
| Xylene (p/m) | 0.181 | 0.00100 | " | 0.200 | | 90.6 | 80-120 | 1.57 | 20 | |
| Xylene (o) | 0.0978 | 0.00100 | " | 0.100 | | 97.8 | 80-120 | 1.34 | 20 | |
| *Surrogate: 4-Bromofluorobenzene* | *0.122* | | *"* | *0.120* | | *102* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.135* | | *"* | *0.120* | | *113* | *75-125* | | | |
| **Calibration Blank (P9K2103-CCB1)** | | | | Prepared & Analyzed: 11/21/19 | | | | | | |
| Benzene | 0.00 | | mg/kg wet | | | | | | | |
| Toluene | 0.00 | | " | | | | | | | |
| Ethylbenzene | 0.00 | | " | | | | | | | |
| Xylene (p/m) | 0.00 | | " | | | | | | | |
| Xylene (o) | 0.00 | | " | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.121* | | *"* | *0.120* | | *101* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.120* | | *"* | *0.120* | | *100* | *75-125* | | | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## Organics by GC - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2103 - General Preparation (GC)** | | | | | | | | | | |
| **Calibration Blank (P9K2103-CCB2)** | | | | Prepared: 11/21/19 Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.00 | | mg/kg wet | | | | | | | |
| Toluene | 0.00 | | " | | | | | | | |
| Ethylbenzene | 0.00 | | " | | | | | | | |
| Xylene (p/m) | 0.00 | | " | | | | | | | |
| Xylene (o) | 0.00 | | " | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.125* | | *"* | *0.120* | | *104* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.108* | | *"* | *0.120* | | *89.9* | *75-125* | | | |
| **Calibration Check (P9K2103-CCV1)** | | | | Prepared & Analyzed: 11/21/19 | | | | | | |
| Benzene | 0.0890 | 0.00100 | mg/kg wet | 0.100 | | 89.0 | 80-120 | | | |
| Toluene | 0.0891 | 0.00100 | " | 0.100 | | 89.1 | 80-120 | | | |
| Ethylbenzene | 0.102 | 0.00200 | " | 0.100 | | 102 | 80-120 | | | |
| Xylene (p/m) | 0.167 | 0.00100 | " | 0.200 | | 83.3 | 80-120 | | | |
| Xylene (o) | 0.0932 | 0.00100 | " | 0.100 | | 93.2 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.113* | | *"* | *0.120* | | *94.4* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.125* | | *"* | *0.120* | | *104* | *75-125* | | | |
| **Calibration Check (P9K2103-CCV2)** | | | | Prepared: 11/21/19 Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.0852 | 0.00100 | mg/kg wet | 0.100 | | 85.2 | 80-120 | | | |
| Toluene | 0.0856 | 0.00100 | " | 0.100 | | 85.6 | 80-120 | | | |
| Ethylbenzene | 0.0921 | 0.00200 | " | 0.100 | | 92.1 | 80-120 | | | |
| Xylene (p/m) | 0.164 | 0.00100 | " | 0.200 | | 82.0 | 80-120 | | | |
| Xylene (o) | 0.0907 | 0.00100 | " | 0.100 | | 90.7 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.105* | | *"* | *0.120* | | *87.8* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.121* | | *"* | *0.120* | | *101* | *75-125* | | | |
| **Calibration Check (P9K2103-CCV3)** | | | | Prepared: 11/21/19 Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.0890 | 0.00100 | mg/kg wet | 0.100 | | 89.0 | 80-120 | | | |
| Toluene | 0.0935 | 0.00100 | " | 0.100 | | 93.5 | 80-120 | | | |
| Ethylbenzene | 0.103 | 0.00200 | " | 0.100 | | 103 | 80-120 | | | |
| Xylene (p/m) | 0.175 | 0.00100 | " | 0.200 | | 87.5 | 80-120 | | | |
| Xylene (o) | 0.0955 | 0.00100 | " | 0.100 | | 95.5 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.105* | | *"* | *0.120* | | *87.3* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.128* | | *"* | *0.120* | | *106* | *75-125* | | | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## Organics by GC - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2103 - General Preparation (GC)** | | | | | | | | | | |
| **Matrix Spike (P9K2103-MS1)** | **Source: 9K18006-11** | | | Prepared: 11/21/19 Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.0650 | 0.00100 | mg/kg dry | 0.102 | ND | 63.7 | 80-120 | | | QM-07 |
| Toluene | 0.0598 | 0.00100 | " | 0.102 | ND | 58.6 | 80-120 | | | QM-07 |
| Ethylbenzene | 0.0734 | 0.00200 | " | 0.102 | ND | 71.9 | 80-120 | | | QM-07 |
| Xylene (p/m) | 0.116 | 0.00100 | " | 0.204 | ND | 56.7 | 80-120 | | | QM-07 |
| Xylene (o) | 0.0604 | 0.00100 | " | 0.102 | ND | 59.2 | 80-120 | | | QM-07 |
| *Surrogate: 4-Bromofluorobenzene* | *0.117* | | *"* | *0.122* | | *95.9* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.135* | | *"* | *0.122* | | *110* | *75-125* | | | |
| **Matrix Spike Dup (P9K2103-MSD1)** | **Source: 9K18006-11** | | | Prepared: 11/21/19 Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.0568 | 0.00100 | mg/kg dry | 0.102 | ND | 55.6 | 80-120 | 13.5 | 20 | QM-07 |
| Toluene | 0.0496 | 0.00100 | " | 0.102 | ND | 48.6 | 80-120 | 18.6 | 20 | QM-07 |
| Ethylbenzene | 0.0591 | 0.00200 | " | 0.102 | ND | 57.9 | 80-120 | 21.6 | 20 | QM-07 |
| Xylene (p/m) | 0.0998 | 0.00100 | " | 0.204 | ND | 48.9 | 80-120 | 14.7 | 20 | QM-07 |
| Xylene (o) | 0.0567 | 0.00100 | " | 0.102 | ND | 55.5 | 80-120 | 6.30 | 20 | QM-07 |
| *Surrogate: 4-Bromofluorobenzene* | *0.106* | | *"* | *0.122* | | *86.4* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.120* | | *"* | *0.122* | | *97.8* | *75-125* | | | |
| **Batch P9K2203 - General Preparation (GC)** | | | | | | | | | | |
| **Blank (P9K2203-BLK1)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| Benzene | ND | 0.00100 | mg/kg wet | | | | | | | |
| Toluene | ND | 0.00100 | " | | | | | | | |
| Ethylbenzene | ND | 0.00200 | " | | | | | | | |
| Xylene (p/m) | ND | 0.00100 | " | | | | | | | |
| Xylene (o) | ND | 0.00100 | " | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.144* | | *"* | *0.120* | | *120* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.115* | | *"* | *0.120* | | *95.9* | *75-125* | | | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## Organics by GC - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2203 - General Preparation (GC)** | | | | | | | | | | |
| **LCS (P9K2203-BS1)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.0992 | 0.00100 | mg/kg wet | 0.100 | | 99.2 | 80-120 | | | |
| Toluene | 0.104 | 0.00100 | " | 0.100 | | 104 | 80-120 | | | |
| Ethylbenzene | 0.113 | 0.00200 | " | 0.100 | | 113 | 80-120 | | | |
| Xylene (p/m) | 0.215 | 0.00100 | " | 0.200 | | 107 | 80-120 | | | |
| Xylene (o) | 0.114 | 0.00100 | " | 0.100 | | 114 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.126* | | *"* | *0.120* | | *105* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.125* | | *"* | *0.120* | | *104* | *75-125* | | | |
| **LCS Dup (P9K2203-BSD1)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.109 | 0.00100 | mg/kg wet | 0.100 | | 109 | 80-120 | 9.58 | 20 | |
| Toluene | 0.119 | 0.00100 | " | 0.100 | | 119 | 80-120 | 13.9 | 20 | |
| Ethylbenzene | 0.117 | 0.00200 | " | 0.100 | | 117 | 80-120 | 3.06 | 20 | |
| Xylene (p/m) | 0.239 | 0.00100 | " | 0.200 | | 120 | 80-120 | 10.9 | 20 | |
| Xylene (o) | 0.120 | 0.00100 | " | 0.100 | | 120 | 80-120 | 5.33 | 20 | |
| *Surrogate: 4-Bromofluorobenzene* | *0.132* | | *"* | *0.120* | | *110* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.129* | | *"* | *0.120* | | *107* | *75-125* | | | |
| **Calibration Blank (P9K2203-CCB1)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.00 | | mg/kg wet | | | | | | | |
| Toluene | 0.00 | | " | | | | | | | |
| Ethylbenzene | 0.00 | | " | | | | | | | |
| Xylene (p/m) | 0.00 | | " | | | | | | | |
| Xylene (o) | 0.00 | | " | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.135* | | *"* | *0.120* | | *113* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.108* | | *"* | *0.120* | | *90.0* | *75-125* | | | |
| **Calibration Blank (P9K2203-CCB2)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.00 | | mg/kg wet | | | | | | | |
| Toluene | 0.00 | | " | | | | | | | |
| Ethylbenzene | 0.00 | | " | | | | | | | |
| Xylene (p/m) | 0.00 | | " | | | | | | | |
| Xylene (o) | 0.00 | | " | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.110* | | *"* | *0.120* | | *91.5* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.0922* | | *"* | *0.120* | | *76.8* | *75-125* | | | |



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Larson & Associates, Inc.
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Midland TX, 79710

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## Organics by GC - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2203 - General Preparation (GC)** | | | | | | | | | | |
| **Calibration Check (P9K2203-CCV1)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.0991 | 0.00100 | mg/kg wet | 0.100 | | 99.1 | 80-120 | | | |
| Toluene | 0.112 | 0.00100 | " | 0.100 | | 112 | 80-120 | | | |
| Ethylbenzene | 0.118 | 0.00200 | " | 0.100 | | 118 | 80-120 | | | |
| Xylene (p/m) | 0.229 | 0.00100 | " | 0.200 | | 115 | 80-120 | | | |
| Xylene (o) | 0.114 | 0.00100 | " | 0.100 | | 114 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.122* | | *"* | *0.120* | | *102* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.125* | | *"* | *0.120* | | *104* | *75-125* | | | |
| **Calibration Check (P9K2203-CCV2)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.0974 | 0.00100 | mg/kg wet | 0.100 | | 97.4 | 80-120 | | | |
| Toluene | 0.112 | 0.00100 | " | 0.100 | | 112 | 80-120 | | | |
| Ethylbenzene | 0.115 | 0.00200 | " | 0.100 | | 115 | 80-120 | | | |
| Xylene (p/m) | 0.219 | 0.00100 | " | 0.200 | | 110 | 80-120 | | | |
| Xylene (o) | 0.114 | 0.00100 | " | 0.100 | | 114 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.134* | | *"* | *0.120* | | *112* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.132* | | *"* | *0.120* | | *110* | *75-125* | | | |
| **Calibration Check (P9K2203-CCV3)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.0993 | 0.00100 | mg/kg wet | 0.100 | | 99.3 | 80-120 | | | |
| Toluene | 0.105 | 0.00100 | " | 0.100 | | 105 | 80-120 | | | |
| Ethylbenzene | 0.112 | 0.00200 | " | 0.100 | | 112 | 80-120 | | | |
| Xylene (p/m) | 0.218 | 0.00100 | " | 0.200 | | 109 | 80-120 | | | |
| Xylene (o) | 0.110 | 0.00100 | " | 0.100 | | 110 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.126* | | *"* | *0.120* | | *105* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.126* | | *"* | *0.120* | | *105* | *75-125* | | | |
| **Matrix Spike (P9K2203-MS1)** | **Source: 9K19001-19** | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.0853 | 0.00100 | mg/kg dry | 0.103 | ND | 82.8 | 80-120 | | | |
| Toluene | 0.0853 | 0.00100 | " | 0.103 | ND | 82.8 | 80-120 | | | |
| Ethylbenzene | 0.101 | 0.00200 | " | 0.103 | ND | 97.7 | 80-120 | | | |
| Xylene (p/m) | 0.152 | 0.00100 | " | 0.206 | ND | 73.5 | 80-120 | | | QM-07 |
| Xylene (o) | 0.0767 | 0.00100 | " | 0.103 | ND | 74.4 | 80-120 | | | QM-07 |
| *Surrogate: 4-Bromofluorobenzene* | *0.145* | | *"* | *0.124* | | *118* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.160* | | *"* | *0.124* | | *129* | *75-125* | | | *S-GC* |



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Larson & Associates, Inc.
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Midland TX, 79710

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## Organics by GC - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2203 - General Preparation (GC)** | | | | | | | | | | |
| **Matrix Spike Dup (P9K2203-MSD1)** | | **Source: 9K19001-19** | | Prepared & Analyzed: 11/22/19 | | | | | | |
| Benzene | 0.0750 | 0.00100 | mg/kg dry | 0.103 | ND | 72.7 | 80-120 | 12.9 | 20 | QM-07 |
| Toluene | 0.0725 | 0.00100 | " | 0.103 | ND | 70.3 | 80-120 | 16.2 | 20 | QM-07 |
| Ethylbenzene | 0.0868 | 0.00200 | " | 0.103 | ND | 84.2 | 80-120 | 14.9 | 20 | |
| Xylene (p/m) | 0.137 | 0.00100 | " | 0.206 | ND | 66.7 | 80-120 | 9.73 | 20 | QM-07 |
| Xylene (o) | 0.0704 | 0.00100 | " | 0.103 | ND | 68.3 | 80-120 | 8.51 | 20 | QM-07 |
| *Surrogate: 4-Bromofluorobenzene* | *0.141* | | *"* | *0.124* | | *114* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.137* | | *"* | *0.124* | | *110* | *75-125* | | | |



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## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2001 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Blank (P9K2001-BLK1)** | | | | Prepared & Analyzed: 11/20/19 | | | | | | |
| % Moisture | ND | 0.1 | % | | | | | | | |
| **Duplicate (P9K2001-DUP1)** | | **Source: 9K19002-04** | | Prepared & Analyzed: 11/20/19 | | | | | | |
| % Moisture | 4.0 | 0.1 | % | | 4.0 | | | 0.00 | 20 | |
| **Duplicate (P9K2001-DUP2)** | | **Source: 9K19002-26** | | Prepared & Analyzed: 11/20/19 | | | | | | |
| % Moisture | 1.0 | 0.1 | % | | 2.0 | | | 66.7 | 20 | |
| **Duplicate (P9K2001-DUP3)** | | **Source: 9K19004-13** | | Prepared & Analyzed: 11/20/19 | | | | | | |
| % Moisture | ND | 0.1 | % | | ND | | | | 20 | |
| **Batch P9K2714 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Blank (P9K2714-BLK1)** | | | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | ND | 0.100 | mg/kg wet | | | | | | | |
| **LCS (P9K2714-BS1)** | | | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | 376 | 1.00 | mg/kg wet | 400 | | 94.1 | 80-120 | | | |
| **LCS Dup (P9K2714-BSD1)** | | | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | 399 | 1.00 | mg/kg wet | 400 | | 99.8 | 80-120 | 5.92 | 20 | |
| **Calibration Blank (P9K2714-CCB1)** | | | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | 0.00 | | mg/kg wet | | | | | | | |
| **Calibration Blank (P9K2714-CCB2)** | | | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | -0.0580 | | mg/kg wet | | | | | | | |



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Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2714 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Calibration Check (P9K2714-CCV1)** | | | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | 22.4 | | mg/kg | 20.0 | | 112 | 0-200 | | | |
| **Calibration Check (P9K2714-CCV2)** | | | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | 22.4 | | mg/kg | 20.0 | | 112 | 0-200 | | | |
| **Calibration Check (P9K2714-CCV3)** | | | | Prepared: 11/27/19 Analyzed: 12/01/19 | | | | | | |
| Chloride | 22.2 | | mg/kg | 20.0 | | 111 | 0-200 | | | |
| **Matrix Spike (P9K2714-MS1)** | | **Source: 9K26020-09** | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | 4010 | 11.2 | mg/kg dry | 1120 | 3000 | 90.0 | 80-120 | | | |
| **Matrix Spike (P9K2714-MS2)** | | **Source: 9K18006-11** | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | 815 | 5.10 | mg/kg dry | 510 | 247 | 111 | 80-120 | | | |
| **Matrix Spike Dup (P9K2714-MSD1)** | | **Source: 9K26020-09** | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | 4170 | 11.2 | mg/kg dry | 1120 | 3000 | 104 | 80-120 | 3.80 | 20 | |
| **Matrix Spike Dup (P9K2714-MSD2)** | | **Source: 9K18006-11** | | Prepared: 11/27/19 Analyzed: 11/30/19 | | | | | | |
| Chloride | 822 | 5.10 | mg/kg dry | 510 | 247 | 113 | 80-120 | 0.810 | 20 | |
| **Batch P9K3002 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Blank (P9K3002-BLK1)** | | | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | ND | 0.100 | mg/kg wet | | | | | | | |
| **LCS (P9K3002-BS1)** | | | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | 445 | 1.00 | mg/kg wet | 400 | | 111 | 80-120 | | | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K3002 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **LCS Dup (P9K3002-BSD1)** | | | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | 445 | 1.00 | mg/kg wet | 400 | | 111 | 80-120 | 0.124 | 20 | |
| **Calibration Blank (P9K3002-CCB1)** | | | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | -0.0500 | | mg/kg wet | | | | | | | |
| **Calibration Blank (P9K3002-CCB2)** | | | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | 0.00 | | mg/kg wet | | | | | | | |
| **Calibration Check (P9K3002-CCV1)** | | | | Prepared: 11/30/19 Analyzed: 12/01/19 | | | | | | |
| Chloride | 22.2 | | mg/kg | 20.0 | | 111 | 0-200 | | | |
| **Calibration Check (P9K3002-CCV2)** | | | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | 22.4 | | mg/kg | 20.0 | | 112 | 0-200 | | | |
| **Calibration Check (P9K3002-CCV3)** | | | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | 22.7 | | mg/kg | 20.0 | | 113 | 0-200 | | | |
| **Matrix Spike (P9K3002-MS1)** | | **Source: 9K19009-01** | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | 1950 | 5.62 | mg/kg dry | 562 | 1320 | 111 | 80-120 | | | |
| **Matrix Spike (P9K3002-MS2)** | | **Source: 9K19001-11** | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | 1710 | 5.21 | mg/kg dry | 521 | 1160 | 107 | 80-120 | | | |
| **Matrix Spike Dup (P9K3002-MSD1)** | | **Source: 9K19009-01** | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | 1970 | 5.62 | mg/kg dry | 562 | 1320 | 115 | 80-120 | 1.00 | 20 | |
| **Matrix Spike Dup (P9K3002-MSD2)** | | **Source: 9K19001-11** | | Prepared: 11/30/19 Analyzed: 12/02/19 | | | | | | |
| Chloride | 1730 | 5.21 | mg/kg dry | 521 | 1160 | 109 | 80-120 | 0.696 | 20 | |



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Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

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## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9L0311 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Blank (P9L0311-BLK1)** | | | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | ND | 0.100 | mg/kg wet | | | | | | | |
| **LCS (P9L0311-BS1)** | | | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | 411 | 1.00 | mg/kg wet | 400 | | 103 | 80-120 | | | |
| **LCS Dup (P9L0311-BSD1)** | | | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | 411 | 1.00 | mg/kg wet | 400 | | 103 | 80-120 | 0.124 | 20 | |
| **Calibration Blank (P9L0311-CCB1)** | | | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | 0.00 | | mg/kg wet | | | | | | | |
| **Calibration Blank (P9L0311-CCB2)** | | | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | 0.00 | | mg/kg wet | | | | | | | |
| **Calibration Check (P9L0311-CCV1)** | | | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | 20.0 | | mg/kg | 20.0 | | 100 | 0-200 | | | |
| **Calibration Check (P9L0311-CCV2)** | | | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | 20.5 | | mg/kg | 20.0 | | 103 | 0-200 | | | |
| **Calibration Check (P9L0311-CCV3)** | | | | Prepared: 12/03/19 Analyzed: 12/04/19 | | | | | | |
| Chloride | 20.6 | | mg/kg | 20.0 | | 103 | 0-200 | | | |
| **Matrix Spike (P9L0311-MS1)** | | **Source: 9K19001-21** | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | 5670 | 10.6 | mg/kg dry | 1060 | 4720 | 90.1 | 80-120 | | | |
| **Matrix Spike (P9L0311-MS2)** | | **Source: 9K19002-18** | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | 1530 | 5.56 | mg/kg dry | 556 | 993 | 96.3 | 80-120 | | | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9L0311 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Matrix Spike Dup (P9L0311-MSD1)** | **Source: 9K19001-21** | | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | 5680 | 10.6 | mg/kg dry | 1060 | 4720 | 91.1 | 80-120 | 0.189 | 20 | |
| **Matrix Spike Dup (P9L0311-MSD2)** | **Source: 9K19002-18** | | | Prepared & Analyzed: 12/03/19 | | | | | | |
| Chloride | 1530 | 5.56 | mg/kg dry | 556 | 993 | 97.3 | 80-120 | 0.392 | 20 | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

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

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2006 - TX 1005** | | | | | | | | | | |
| **Blank (P9K2006-BLK1)** | | | | Prepared: 11/20/19 Analyzed: 11/22/19 | | | | | | |
| C6-C12 | ND | 25.0 | mg/kg wet | | | | | | | |
| >C12-C28 | ND | 25.0 | " | | | | | | | |
| >C28-C35 | ND | 25.0 | " | | | | | | | |
| *Surrogate: 1-Chlorooctane* | *92.8* | | *"* | *100* | | *92.8* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *48.7* | | *"* | *50.0* | | *97.4* | *70-130* | | | |
| **LCS (P9K2006-BS1)** | | | | Prepared: 11/20/19 Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 890 | 25.0 | mg/kg wet | 1000 | | 89.0 | 75-125 | | | |
| >C12-C28 | 940 | 25.0 | " | 1000 | | 94.0 | 75-125 | | | |
| *Surrogate: 1-Chlorooctane* | *111* | | *"* | *100* | | *111* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *47.0* | | *"* | *50.0* | | *94.1* | *70-130* | | | |
| **LCS Dup (P9K2006-BSD1)** | | | | Prepared: 11/20/19 Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 806 | 25.0 | mg/kg wet | 1000 | | 80.6 | 75-125 | 9.93 | 20 | |
| >C12-C28 | 846 | 25.0 | " | 1000 | | 84.6 | 75-125 | 10.6 | 20 | |
| *Surrogate: 1-Chlorooctane* | *97.4* | | *"* | *100* | | *97.4* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *42.3* | | *"* | *50.0* | | *84.6* | *70-130* | | | |
| **Calibration Check (P9K2006-CCV1)** | | | | Prepared: 11/20/19 Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 474 | 25.0 | mg/kg wet | 500 | | 94.9 | 85-115 | | | |
| >C12-C28 | 511 | 25.0 | " | 500 | | 102 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *112* | | *"* | *100* | | *112* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *48.6* | | *"* | *50.0* | | *97.1* | *70-130* | | | |
| **Calibration Check (P9K2006-CCV2)** | | | | Prepared: 11/20/19 Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 461 | 25.0 | mg/kg wet | 500 | | 92.2 | 85-115 | | | |
| >C12-C28 | 501 | 25.0 | " | 500 | | 100 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *110* | | *"* | *100* | | *110* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *47.7* | | *"* | *50.0* | | *95.5* | *70-130* | | | |



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| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |

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

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2006 - TX 1005** | | | | | | | | | | |
| **Calibration Check (P9K2006-CCV3)** | | | | Prepared: 11/20/19 Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 492 | 25.0 | mg/kg wet | 500 | | 98.4 | 85-115 | | | |
| >C12-C28 | 504 | 25.0 | " | 500 | | 101 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *114* | | *"* | *100* | | *114* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *48.7* | | *"* | *50.0* | | *97.4* | *70-130* | | | |
| **Matrix Spike (P9K2006-MS1)** | | **Source: 9K19001-01** | | Prepared: 11/20/19 Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 931 | 26.6 | mg/kg dry | 1060 | 11.8 | 86.4 | 75-125 | | | |
| >C12-C28 | 1010 | 26.6 | " | 1060 | 12.2 | 94.0 | 75-125 | | | |
| *Surrogate: 1-Chlorooctane* | *125* | | *"* | *106* | | *118* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *51.6* | | *"* | *53.2* | | *97.0* | *70-130* | | | |
| **Matrix Spike Dup (P9K2006-MSD1)** | | **Source: 9K19001-01** | | Prepared: 11/20/19 Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 958 | 26.6 | mg/kg dry | 1060 | 11.8 | 89.0 | 75-125 | 2.92 | 20 | |
| >C12-C28 | 1050 | 26.6 | " | 1060 | 12.2 | 97.4 | 75-125 | 3.65 | 20 | |
| *Surrogate: 1-Chlorooctane* | *128* | | *"* | *106* | | *120* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *50.5* | | *"* | *53.2* | | *95.0* | *70-130* | | | |
| **Batch P9K2207 - TX 1005** | | | | | | | | | | |
| **Blank (P9K2207-BLK1)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| C6-C12 | ND | 25.0 | mg/kg wet | | | | | | | |
| >C12-C28 | ND | 25.0 | " | | | | | | | |
| >C28-C35 | ND | 25.0 | " | | | | | | | |
| *Surrogate: 1-Chlorooctane* | *91.6* | | *"* | *100* | | *91.6* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *48.0* | | *"* | *50.0* | | *96.1* | *70-130* | | | |
| **LCS (P9K2207-BS1)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 935 | 25.0 | mg/kg wet | 1000 | | 93.5 | 75-125 | | | |
| >C12-C28 | 997 | 25.0 | " | 1000 | | 99.7 | 75-125 | | | |
| *Surrogate: 1-Chlorooctane* | *116* | | *"* | *100* | | *116* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *50.9* | | *"* | *50.0* | | *102* | *70-130* | | | |



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

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

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

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2207 - TX 1005** | | | | | | | | | | |
| **LCS Dup (P9K2207-BSD1)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 791 | 25.0 | mg/kg wet | 1000 | | 79.1 | 75-125 | 16.7 | 20 | |
| >C12-C28 | 859 | 25.0 | " | 1000 | | 85.9 | 75-125 | 14.8 | 20 | |
| *Surrogate: 1-Chlorooctane* | *109* | | *"* | *100* | | *109* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *41.6* | | *"* | *50.0* | | *83.2* | *70-130* | | | |
| **Calibration Blank (P9K2207-CCB1)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 13.1 | | mg/kg wet | | | | | | | |
| >C12-C28 | 18.1 | | " | | | | | | | |
| *Surrogate: 1-Chlorooctane* | *102* | | *"* | *100* | | *102* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *53.6* | | *"* | *50.0* | | *107* | *70-130* | | | |
| **Calibration Blank (P9K2207-CCB2)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 11.3 | | mg/kg wet | | | | | | | |
| >C12-C28 | 23.9 | | " | | | | | | | |
| *Surrogate: 1-Chlorooctane* | *94.6* | | *"* | *100* | | *94.6* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *49.1* | | *"* | *50.0* | | *98.1* | *70-130* | | | |
| **Calibration Check (P9K2207-CCV1)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 490 | 25.0 | mg/kg wet | 500 | | 98.1 | 85-115 | | | |
| >C12-C28 | 532 | 25.0 | " | 500 | | 106 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *112* | | *"* | *100* | | *112* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *49.6* | | *"* | *50.0* | | *99.2* | *70-130* | | | |
| **Calibration Check (P9K2207-CCV2)** | | | | Prepared & Analyzed: 11/22/19 | | | | | | |
| C6-C12 | 429 | 25.0 | mg/kg wet | 500 | | 85.8 | 85-115 | | | |
| >C12-C28 | 470 | 25.0 | " | 500 | | 94.0 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *101* | | *"* | *100* | | *101* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *43.8* | | *"* | *50.0* | | *87.6* | *70-130* | | | |



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P.O. Box 50685
Midland TX, 79710

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

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

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2208 - TX 1005** | | | | | | | | | | |
| **Blank (P9K2208-BLK1)** | | | | Prepared: 11/22/19 Analyzed: 11/23/19 | | | | | | |
| C6-C12 | ND | 25.0 | mg/kg wet | | | | | | | |
| >C12-C28 | ND | 25.0 | " | | | | | | | |
| >C28-C35 | ND | 25.0 | " | | | | | | | |
| *Surrogate: 1-Chlorooctane* | *93.1* | | *"* | *100* | | *93.1* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *50.6* | | *"* | *50.0* | | *101* | *70-130* | | | |
| **LCS (P9K2208-BS1)** | | | | Prepared: 11/22/19 Analyzed: 11/23/19 | | | | | | |
| C6-C12 | 924 | 25.0 | mg/kg wet | 1000 | | 92.4 | 75-125 | | | |
| >C12-C28 | 1000 | 25.0 | " | 1000 | | 100 | 75-125 | | | |
| *Surrogate: 1-Chlorooctane* | *110* | | *"* | *100* | | *110* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *48.8* | | *"* | *50.0* | | *97.6* | *70-130* | | | |
| **LCS Dup (P9K2208-BSD1)** | | | | Prepared: 11/22/19 Analyzed: 11/23/19 | | | | | | |
| C6-C12 | 810 | 25.0 | mg/kg wet | 1000 | | 81.0 | 75-125 | 13.1 | 20 | |
| >C12-C28 | 862 | 25.0 | " | 1000 | | 86.2 | 75-125 | 15.0 | 20 | |
| *Surrogate: 1-Chlorooctane* | *99.6* | | *"* | *100* | | *99.6* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *43.0* | | *"* | *50.0* | | *86.1* | *70-130* | | | |
| **Calibration Blank (P9K2208-CCB1)** | | | | Prepared: 11/22/19 Analyzed: 11/23/19 | | | | | | |
| C6-C12 | 12.5 | | mg/kg wet | | | | | | | |
| >C12-C28 | 16.7 | | " | | | | | | | |
| *Surrogate: 1-Chlorooctane* | *102* | | *"* | *100* | | *102* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *54.6* | | *"* | *50.0* | | *109* | *70-130* | | | |
| **Calibration Blank (P9K2208-CCB2)** | | | | Prepared: 11/22/19 Analyzed: 11/23/19 | | | | | | |
| C6-C12 | 11.5 | | mg/kg wet | | | | | | | |
| >C12-C28 | 19.9 | | " | | | | | | | |
| *Surrogate: 1-Chlorooctane* | *102* | | *"* | *100* | | *102* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *54.0* | | *"* | *50.0* | | *108* | *70-130* | | | |



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P.O. Box 50685
Midland TX, 79710

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

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

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P9K2208 - TX 1005** | | | | | | | | | | |
| **Calibration Check (P9K2208-CCV1)** | | | | Prepared: 11/22/19 Analyzed: 11/23/19 | | | | | | |
| C6-C12 | 481 | 25.0 | mg/kg wet | 500 | | 96.1 | 85-115 | | | |
| >C12-C28 | 504 | 25.0 | " | 500 | | 101 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *113* | | *"* | *100* | | *113* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *49.6* | | *"* | *50.0* | | *99.3* | *70-130* | | | |
| **Calibration Check (P9K2208-CCV2)** | | | | Prepared: 11/22/19 Analyzed: 11/23/19 | | | | | | |
| C6-C12 | 499 | 25.0 | mg/kg wet | 500 | | 99.8 | 85-115 | | | |
| >C12-C28 | 518 | 25.0 | " | 500 | | 104 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *119* | | *"* | *100* | | *119* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *51.4* | | *"* | *50.0* | | *103* | *70-130* | | | |
| **Duplicate (P9K2208-DUP1)** | | **Source: 9K19002-15** | | Prepared: 11/22/19 Analyzed: 11/23/19 | | | | | | |
| C6-C12 | 1070 | 255 | mg/kg dry | | 1060 | | | 1.41 | 20 | |
| >C12-C28 | 13700 | 255 | " | | 13400 | | | 1.79 | 20 | |
| *Surrogate: 1-Chlorooctane* | *99.7* | | *"* | *102* | | *97.7* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *62.0* | | *"* | *51.0* | | *122* | *70-130* | | | |



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P.O. Box 50685
Midland TX, 79710

Project: Chevron-Culebra Bluff
Project Number: 19-0180-07
Project Manager: Mark Larson

Fax: (432) 687-0456

## Notes and Definitions

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

Report Approved By: Brent Barron Date: 12/5/2019

Brent Barron, Laboratory Director/Technical Director

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

| | | |
|---|---|---|
| Larson & Associates, Inc. | Project: Chevron-Culebra Bluff | Fax: (432) 687-0456 |
| P.O. Box 50685 | Project Number: 19-0180-07 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |



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Page 112 of 1002

№ 0577

# CHAIN-OF-CUSTODY



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

Data Reported to:

DATE: 11/19/2019 PAGE 1 OF 1

PO#: LAB WORK ORDER#: 9K19001

PROJECT LOCATION OR NAME: Chevron-Culebra Bluff

LAI PROJECT #: 19-0180-07 COLLECTOR: BD/EC

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR 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 ☐ | TBLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-1 | 1 | 11/18/19 | 11:30 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| S-2 | 2 | | 11:31 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-3 | 3 | | 11:32 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-4 | 4 | | 11:33 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-5 | 5 | | 11:34 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-6 | 6 | | 11:37 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-7 | 7 | | 11:40 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-8 | 8 | | 12:29 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-9 | 9 | | 12:31 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-10 | 10 | | 12:38 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-11 | 11 | | 12:39 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-12 | 12 | | 12:42 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-13 | 13 | | 12:44 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-14 | 14 | | 12:47 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-15 | 15 | | 12:58 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY:(Signature) DATE/TIME 11.19.19 9:00 RECEIVED BY: (Signature)

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

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

LABORATORY: PBEL

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

LABORATORY USE ONLY: -1.8 CF+1 C2
RECEIVING TEMP: 2.8 THERM#:
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

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№ 0578

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 11/19/2019 PAGE 2 OF 2

PO#: LAB WORK ORDER#: 9K19001

PROJECT LOCATION OR NAME: Chevron - Culebra Bluff

LAI PROJECT #: 19-0180-07 COLLECTOR: RO/EC

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1008 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1008 ☐ | 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-16 | 16 | 11/18/19 | 13:00 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | X | | |
| S-17 | 17 | " | 13:02 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | " | | |
| S-18 | 18 | " | 13:04 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | " | | |
| S-19 | 19 | " | 13:08 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | " | | |
| S-20 | 20 | " | 13:10 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | " | | |
| S-21 | 21 | " | 13:11 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | " | | |
| S-22 | 22 | " | 13:15 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | " | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY:(Signature) DATE/TIME 11.19.19 9:00 RECEIVED BY: (Signature)

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

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

LABORATORY: PBEL

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

LABORATORY USE ONLY:
RECEIVING TEMP: -2.8 -1.8 THERM#: CF+1 L2
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

Received by OCD: 5/8/2024 11:20:33 AM


# Certificate of Analysis Summary 647206

## Larson and Associates, Inc., Midland, TX

## Project Name: Chevron Culebra Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:** NM

**Date Received in Lab:** Fri Dec-20-19 11:10 am
**Report Date:** 31-DEC-19
**Project Manager:** Holly Taylor

| Analysis Requested | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Lab Id:* | 647206-001 | | 647206-002 | | 647206-003 | | 647206-004 | | 647206-005 | | 647206-006 | |
| | *Field Id:* | S-23 (0.5') | | S-23 (1') | | S-17 (1.5') | | S-10 (5') | | S-16 (1') | | S-15 (1') | |
| | *Depth:* | | | | | | | | | | | | |
| | *Matrix:* | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | *Sampled:* | Dec-17-19 10:41 | | Dec-17-19 10:42 | | Dec-17-19 13:21 | | Dec-17-19 13:48 | | Dec-17-19 14:30 | | Dec-17-19 15:04 | |
| **BTEX by EPA 8021B** | *Extracted:* | Dec-26-19 17:15 | | Dec-26-19 17:15 | | Dec-26-19 17:15 | | Dec-26-19 17:15 | | Dec-26-19 17:15 | | Dec-26-19 17:15 | |
| | *Analyzed:* | Dec-27-19 08:20 | | Dec-27-19 08:40 | | Dec-27-19 09:00 | | Dec-27-19 09:21 | | Dec-27-19 09:41 | | Dec-27-19 10:02 | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Benzene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00200 | 0.00200 |
| Toluene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00200 | 0.00200 |
| Ethylbenzene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00200 | 0.00200 |
| m,p-Xylenes | | <0.00402 | 0.00402 | <0.00400 | 0.00400 | <0.00403 | 0.00403 | <0.00398 | 0.00398 | <0.00401 | 0.00401 | <0.00401 | 0.00401 |
| o-Xylene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00200 | 0.00200 |
| Total Xylenes | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00200 | 0.00200 |
| Total BTEX | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00200 | 0.00200 |
| **Chloride by EPA 300** | *Extracted:* | Dec-20-19 16:05 | | Dec-20-19 16:05 | | Dec-20-19 16:05 | | Dec-20-19 16:05 | | Dec-20-19 16:05 | | Dec-20-19 16:05 | |
| | *Analyzed:* | Dec-20-19 22:24 | | Dec-20-19 22:31 | | Dec-20-19 22:38 | | Dec-20-19 22:45 | | Dec-20-19 22:53 | | Dec-20-19 23:00 | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 6.05 | 5.00 | 9.26 | 5.00 | 6040 | 50.0 | 1340 | 5.00 | 1470 | 25.0 | 4960 | 50.0 |
| **TPH By SW8015 Mod** | *Extracted:* | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | |
| | *Analyzed:* | Dec-21-19 13:23 | | Dec-21-19 14:27 | | Dec-21-19 14:48 | | Dec-21-19 15:09 | | Dec-21-19 15:30 | | Dec-21-19 15:51 | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Gasoline Range Hydrocarbons | | <49.9 | 49.9 | <49.9 | 49.9 | <49.8 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 | <50.0 | 50.0 |
| Diesel Range Organics | | <49.9 | 49.9 | <49.9 | 49.9 | 703 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 | 1070 | 50.0 |
| Oil Range Hydrocarbons | | <49.9 | 49.9 | <49.9 | 49.9 | <49.8 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 | 205 | 50.0 |
| Total TPH | | <49.9 | 49.9 | <49.9 | 49.9 | 703 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 | 1280 | 50.0 |

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The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Final 1.000

Released to Imaging: 6/25/2024 3:21:21 PM

# Certificate of Analysis Summary 647206

## Larson and Associates, Inc., Midland, TX

## Project Name: Chevron Culebra Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:** NM

**Date Received in Lab:** Fri Dec-20-19 11:10 am
**Report Date:** 31-DEC-19
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 647206-007 | | 647206-008 | | 647206-009 | | 647206-010 | | 647206-011 | | 647206-012 | |
| | ***Field Id:*** | S-14 (5') | | S-13 (5') | | S-12 (5') | | S-12 (7') | | S-11 (5') | | S-11 (7') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Dec-17-19 15:15 | | Dec-17-19 15:43 | | Dec-17-19 16:09 | | Dec-17-19 16:10 | | Dec-17-19 16:42 | | Dec-17-19 16:45 | |
| **BTEX by EPA 8021B** | ***Extracted:*** | Dec-26-19 17:15 | | Dec-26-19 17:15 | | Dec-26-19 17:15 | | Dec-26-19 17:15 | | Dec-29-19 12:00 | | Dec-29-19 12:00 | |
| | ***Analyzed:*** | Dec-27-19 10:22 | | Dec-27-19 10:43 | | Dec-27-19 11:03 | | Dec-27-19 11:24 | | Dec-29-19 21:20 | | Dec-29-19 21:41 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Benzene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00199 | 0.00199 | <0.00199 | 0.00199 |
| Toluene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00199 | 0.00199 | <0.00199 | 0.00199 |
| Ethylbenzene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00199 | 0.00199 | <0.00199 | 0.00199 |
| m,p-Xylenes | | <0.00402 | 0.00402 | <0.00401 | 0.00401 | <0.00399 | 0.00399 | <0.00398 | 0.00398 | <0.00398 | 0.00398 | <0.00398 | 0.00398 |
| o-Xylene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00199 | 0.00199 | <0.00199 | 0.00199 |
| Total Xylenes | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00199 | 0.00199 | <0.00199 | 0.00199 |
| Total BTEX | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00199 | 0.00199 | <0.00199 | 0.00199 |
| **Chloride by EPA 300** | ***Extracted:*** | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | |
| | ***Analyzed:*** | Dec-22-19 16:32 | | Dec-22-19 16:13 | | Dec-22-19 16:39 | | Dec-22-19 16:45 | | Dec-22-19 16:52 | | Dec-22-19 17:12 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 1120 | 4.96 | 1080 | 5.04 | 671 | 5.00 | 828 | 5.03 | 1540 | 25.1 | 992 | 4.98 |
| **TPH By SW8015 Mod** | ***Extracted:*** | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | |
| | ***Analyzed:*** | Dec-21-19 16:12 | | Dec-21-19 16:33 | | Dec-21-19 16:54 | | Dec-21-19 17:15 | | Dec-21-19 17:57 | | Dec-21-19 18:18 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Gasoline Range Hydrocarbons | | <49.9 | 49.9 | <50.0 | 50.0 | <49.8 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 | <49.9 | 49.9 |
| Diesel Range Organics | | <49.9 | 49.9 | <50.0 | 50.0 | <49.8 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 | <49.9 | 49.9 |
| Oil Range Hydrocarbons | | <49.9 | 49.9 | <50.0 | 50.0 | <49.8 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 | <49.9 | 49.9 |
| Total TPH | | <49.9 | 49.9 | <50.0 | 50.0 | <49.8 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 | <49.9 | 49.9 |

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Final 1.000

# Certificate of Analysis Summary 647206

## Larson and Associates, Inc., Midland, TX

## Project Name: Chevron Culebra Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:** NM

**Date Received in Lab:** Fri Dec-20-19 11:10 am
**Report Date:** 31-DEC-19
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 647206-013 | | 647206-014 | | 647206-015 | | 647206-016 | | 647206-017 | | 647206-018 | |
| | ***Field Id:*** | S-9 (5') | | S-9 (7') | | S-8 (5') | | S-7 (5') | | S-6 (5') | | S-6 (7') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Dec-17-19 16:58 | | Dec-17-19 16:59 | | Dec-18-19 09:08 | | Dec-18-19 09:19 | | Dec-18-19 09:36 | | Dec-18-19 09:42 | |
| **BTEX by EPA 8021B** | ***Extracted:*** | Dec-29-19 12:00 | | Dec-29-19 12:00 | | Dec-29-19 12:00 | | Dec-29-19 12:00 | | Dec-29-19 12:00 | | Dec-29-19 12:00 | |
| | ***Analyzed:*** | Dec-29-19 22:01 | | Dec-29-19 23:42 | | Dec-30-19 00:03 | | Dec-30-19 00:23 | | Dec-30-19 00:43 | | Dec-30-19 01:04 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Benzene | | <0.00198 | 0.00198 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Toluene | | <0.00198 | 0.00198 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Ethylbenzene | | <0.00198 | 0.00198 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| m,p-Xylenes | | <0.00397 | 0.00397 | <0.00402 | 0.00402 | <0.00400 | 0.00400 | <0.00402 | 0.00402 | <0.00397 | 0.00397 | <0.00399 | 0.00399 |
| o-Xylene | | <0.00198 | 0.00198 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Total Xylenes | | <0.00198 | 0.00198 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Total BTEX | | <0.00198 | 0.00198 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| **Chloride by EPA 300** | ***Extracted:*** | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | |
| | ***Analyzed:*** | Dec-22-19 17:18 | | Dec-22-19 17:25 | | Dec-22-19 17:31 | | Dec-22-19 17:38 | | Dec-22-19 17:44 | | Dec-22-19 18:04 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 2060 | 24.8 | 293 | 4.95 | 1880 | 24.8 | 3130 | 24.9 | 1030 | 5.04 | 913 | 4.96 |
| **TPH By SW8015 Mod** | ***Extracted:*** | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-20-19 17:00 | |
| | ***Analyzed:*** | Dec-21-19 18:39 | | Dec-21-19 19:00 | | Dec-21-19 19:20 | | Dec-21-19 19:42 | | Dec-21-19 20:03 | | Dec-21-19 20:24 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Gasoline Range Hydrocarbons | | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 | <49.8 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 |
| Diesel Range Organics | | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 | <49.8 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 |
| Oil Range Hydrocarbons | | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 | <49.8 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 |
| Total TPH | | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 | <49.8 | 49.8 | <50.0 | 50.0 | <50.0 | 50.0 |

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Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.



Holly Taylor
Project Manager

# Certificate of Analysis Summary 647206

## Larson and Associates, Inc., Midland, TX

## Project Name: Chevron Culebra Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:** NM

**Date Received in Lab:** Fri Dec-20-19 11:10 am
**Report Date:** 31-DEC-19
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 647206-019 | | 647206-020 | | 647206-021 | | 647206-022 | | 647206-023 | | 647206-024 | |
| | ***Field Id:*** | S-5 (5') | | S-5 (7') | | S-4 (5') | | S-4 (7') | | S-3 (5') | | S-3 (7') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Dec-18-19 09:57 | | Dec-18-19 10:02 | | Dec-18-19 10:17 | | Dec-18-19 10:26 | | Dec-18-19 10:55 | | Dec-18-19 11:00 | |
| **BTEX by EPA 8021B** | ***Extracted:*** | Dec-29-19 12:00 | | Dec-29-19 12:00 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | |
| | ***Analyzed:*** | Dec-30-19 01:24 | | Dec-30-19 09:03 | | Dec-30-19 13:45 | | Dec-30-19 14:26 | | Dec-30-19 14:47 | | Dec-30-19 15:18 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Benzene | | <0.00199 | 0.00199 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Toluene | | <0.00199 | 0.00199 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Ethylbenzene | | <0.00199 | 0.00199 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| m,p-Xylenes | | <0.00398 | 0.00398 | <0.00396 | 0.00396 | <0.00401 | 0.00401 | <0.00399 | 0.00399 | <0.00397 | 0.00397 | <0.00400 | 0.00400 |
| o-Xylene | | <0.00199 | 0.00199 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Total Xylenes | | <0.00199 | 0.00199 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Total BTEX | | <0.00199 | 0.00199 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| **Chloride by EPA 300** | ***Extracted:*** | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-20-19 16:25 | |
| | ***Analyzed:*** | Dec-22-19 18:11 | | Dec-22-19 18:30 | | Dec-22-19 18:37 | | Dec-22-19 18:43 | | Dec-22-19 18:50 | | Dec-22-19 18:56 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 2930 | 25.1 | 2770 | 25.2 | 5390 | 49.8 | 2630 | 25.3 | 2380 | 24.8 | 1850 | 25.0 |
| **TPH By SW8015 Mod** | ***Extracted:*** | Dec-20-19 17:00 | | Dec-20-19 17:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | |
| | ***Analyzed:*** | Dec-21-19 20:46 | | Dec-21-19 21:07 | | Dec-21-19 22:52 | | Dec-21-19 23:55 | | Dec-22-19 00:16 | | Dec-22-19 00:36 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Gasoline Range Hydrocarbons | | <50.0 | 50.0 | <49.8 | 49.8 | <50.0 | 50.0 | <49.8 | 49.8 | <49.9 | 49.9 | <50.0 | 50.0 |
| Diesel Range Organics | | <50.0 | 50.0 | <49.8 | 49.8 | <50.0 | 50.0 | <49.8 | 49.8 | <49.9 | 49.9 | <50.0 | 50.0 |
| Oil Range Hydrocarbons | | <50.0 | 50.0 | <49.8 | 49.8 | <50.0 | 50.0 | <49.8 | 49.8 | <49.9 | 49.9 | <50.0 | 50.0 |
| Total TPH | | <50.0 | 50.0 | <49.8 | 49.8 | <50.0 | 50.0 | <49.8 | 49.8 | <49.9 | 49.9 | <50.0 | 50.0 |

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Holly Taylor
Project Manager



Final 1.000

# Certificate of Analysis Summary 647206

## Larson and Associates, Inc., Midland, TX

## Project Name: Chevron Culebra Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:** NM

**Date Received in Lab:** Fri Dec-20-19 11:10 am
**Report Date:** 31-DEC-19
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 647206-025 | | 647206-026 | | 647206-027 | | 647206-028 | | 647206-029 | | 647206-030 | |
| | ***Field Id:*** | S-2 (5') | | S-2 (7') | | S-1 (5') | | S-1 (7') | | S-21 (5') | | S-21 (10') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Dec-18-19 11:13 | | Dec-18-19 11:19 | | Dec-18-19 11:30 | | Dec-18-19 11:34 | | Dec-18-19 12:04 | | Dec-18-19 12:07 | |
| **BTEX by EPA 8021B** | ***Extracted:*** | Dec-27-19 08:45 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | |
| | ***Analyzed:*** | Dec-30-19 15:38 | | Dec-30-19 15:59 | | Dec-30-19 16:19 | | Dec-30-19 16:40 | | Dec-30-19 17:00 | | Dec-30-19 18:40 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Benzene | | <0.00202 | 0.00202 | <0.00198 | 0.00198 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00201 | 0.00201 |
| Toluene | | <0.00202 | 0.00202 | <0.00198 | 0.00198 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00201 | 0.00201 |
| Ethylbenzene | | <0.00202 | 0.00202 | <0.00198 | 0.00198 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00201 | 0.00201 |
| m,p-Xylenes | | <0.00403 | 0.00403 | <0.00397 | 0.00397 | <0.00397 | 0.00397 | <0.00399 | 0.00399 | <0.00398 | 0.00398 | <0.00402 | 0.00402 |
| o-Xylene | | <0.00202 | 0.00202 | <0.00198 | 0.00198 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00201 | 0.00201 |
| Total Xylenes | | <0.00202 | 0.00202 | <0.00198 | 0.00198 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00201 | 0.00201 |
| Total BTEX | | <0.00202 | 0.00202 | <0.00198 | 0.00198 | <0.00198 | 0.00198 | <0.00200 | 0.00200 | <0.00199 | 0.00199 | <0.00201 | 0.00201 |
| **Chloride by EPA 300** | ***Extracted:*** | Dec-20-19 16:25 | | Dec-20-19 16:25 | | Dec-22-19 19:00 | | Dec-22-19 19:00 | | Dec-22-19 19:00 | | Dec-22-19 19:00 | |
| | ***Analyzed:*** | Dec-22-19 19:03 | | Dec-22-19 19:09 | | Dec-22-19 21:47 | | Dec-22-19 22:06 | | Dec-22-19 19:49 | | Dec-22-19 22:13 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 851 | 25.0 | 2790 | 25.0 | 2020 | 24.9 | 1790 | 25.0 | 321 | 4.96 | 1770 | 25.0 |
| **TPH By SW8015 Mod** | ***Extracted:*** | Dec-21-19 09:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | |
| | ***Analyzed:*** | Dec-22-19 00:58 | | Dec-22-19 01:19 | | Dec-22-19 01:40 | | Dec-22-19 02:01 | | Dec-22-19 02:22 | | Dec-22-19 02:43 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Gasoline Range Hydrocarbons | | <50.0 | 50.0 | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 | <49.8 | 49.8 | <50.0 | 50.0 |
| Diesel Range Organics | | 139 | 50.0 | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 | 96.0 | 49.8 | <50.0 | 50.0 |
| Oil Range Hydrocarbons | | <50.0 | 50.0 | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 | <49.8 | 49.8 | <50.0 | 50.0 |
| Total TPH | | 139 | 50.0 | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 | 96.0 | 49.8 | <50.0 | 50.0 |

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Holly Taylor
Project Manager



Final 1.000

# Certificate of Analysis Summary 647206

## Larson and Associates, Inc., Midland, TX

## Project Name: Chevron Culebra Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:** NM

**Date Received in Lab:** Fri Dec-20-19 11:10 am
**Report Date:** 31-DEC-19
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 647206-031 | | 647206-032 | | 647206-033 | | 647206-034 | | 647206-035 | | 647206-036 | |
| | ***Field Id:*** | S-18 (2') | | S-19 (3') | | S-20 (3') | | S-22 (3') | | S-24 (0.5') | | S-24 (1') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Dec-18-19 12:37 | | Dec-18-19 12:52 | | Dec-18-19 13:45 | | Dec-18-19 13:53 | | Dec-18-19 13:56 | | Dec-18-19 13:57 | |
| **BTEX by EPA 8021B** | ***Extracted:*** | Dec-27-19 08:45 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | | Dec-27-19 08:45 | |
| | ***Analyzed:*** | Dec-30-19 19:00 | | Dec-30-19 19:20 | | Dec-30-19 19:41 | | Dec-30-19 20:01 | | Dec-30-19 20:22 | | Dec-30-19 20:42 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Benzene | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00198 | 0.00198 |
| Toluene | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00198 | 0.00198 |
| Ethylbenzene | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00198 | 0.00198 |
| m,p-Xylenes | | <0.00403 | 0.00403 | <0.00399 | 0.00399 | <0.00401 | 0.00401 | <0.00399 | 0.00399 | <0.00397 | 0.00397 | <0.00396 | 0.00396 |
| o-Xylene | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00198 | 0.00198 |
| Total Xylenes | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00198 | 0.00198 |
| Total BTEX | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00198 | 0.00198 |
| **Chloride by EPA 300** | ***Extracted:*** | Dec-22-19 19:00 | | Dec-22-19 19:00 | | Dec-22-19 19:00 | | Dec-22-19 19:00 | | Dec-22-19 19:00 | | Dec-22-19 19:00 | |
| | ***Analyzed:*** | Dec-22-19 22:19 | | Dec-22-19 21:20 | | Dec-22-19 22:26 | | Dec-22-19 22:32 | | Dec-22-19 22:39 | | Dec-22-19 22:46 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 1270 | 5.00 | 34.9 | 4.98 | 295 | 5.03 | 1400 | 4.96 | 24.8 | 4.99 | 22.6 | 4.95 |
| **TPH By SW8015 Mod** | ***Extracted:*** | Dec-21-19 09:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | | Dec-21-19 09:00 | |
| | ***Analyzed:*** | Dec-22-19 03:24 | | Dec-22-19 03:45 | | Dec-22-19 04:06 | | Dec-22-19 04:27 | | Dec-22-19 04:48 | | Dec-22-19 05:10 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Gasoline Range Hydrocarbons | | <50.0 | 50.0 | <49.8 | 49.8 | <49.9 | 49.9 | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 |
| Diesel Range Organics | | <50.0 | 50.0 | <49.8 | 49.8 | <49.9 | 49.9 | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 |
| Oil Range Hydrocarbons | | <50.0 | 50.0 | <49.8 | 49.8 | <49.9 | 49.9 | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 |
| Total TPH | | <50.0 | 50.0 | <49.8 | 49.8 | <49.9 | 49.9 | <49.9 | 49.9 | <50.0 | 50.0 | <49.9 | 49.9 |

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Holly Taylor
Project Manager



Final 1.000

# Certificate of Analysis Summary 647206

## Larson and Associates, Inc., Midland, TX

## Project Name: Chevron Culebra Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:** NM

**Date Received in Lab:** Fri Dec-20-19 11:10 am
**Report Date:** 31-DEC-19
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 647206-037 | | 647206-038 | | | | | |
| | ***Field Id:*** | S-25 (0.5') | | S-25 (1') | | | | | |
| | ***Depth:*** | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | | | | |
| | ***Sampled:*** | Dec-18-19 13:59 | | Dec-18-19 14:03 | | | | | |
| **BTEX by EPA 8021B** | ***Extracted:*** | Dec-27-19 08:45 | | Dec-27-19 08:45 | | | | | |
| | ***Analyzed:*** | Dec-30-19 21:03 | | Dec-30-19 21:23 | | | | | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | | | | |
| Benzene | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | | | | |
| Toluene | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | | | | |
| Ethylbenzene | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | | | | |
| m,p-Xylenes | | <0.00403 | 0.00403 | <0.00400 | 0.00400 | | | | |
| o-Xylene | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | | | | |
| Total Xylenes | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | | | | |
| Total BTEX | | <0.00202 | 0.00202 | <0.00200 | 0.00200 | | | | |
| **Chloride by EPA 300** | ***Extracted:*** | Dec-23-19 12:30 | | Dec-23-19 12:30 | | | | | |
| | ***Analyzed:*** | Dec-23-19 16:48 | | Dec-23-19 16:54 | | | | | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | | | | |
| Chloride | | 6.77 | 5.04 | <5.05 | 5.05 | | | | |
| **TPH By SW8015 Mod** | ***Extracted:*** | Dec-21-19 09:00 | | Dec-21-19 09:00 | | | | | |
| | ***Analyzed:*** | Dec-22-19 05:31 | | Dec-22-19 05:52 | | | | | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | | | | |
| Gasoline Range Hydrocarbons | | <49.8 | 49.8 | <50.0 | 50.0 | | | | |
| Diesel Range Organics | | <49.8 | 49.8 | <50.0 | 50.0 | | | | |
| Oil Range Hydrocarbons | | <49.8 | 49.8 | <50.0 | 50.0 | | | | |
| Total TPH | | <49.8 | 49.8 | <50.0 | 50.0 | | | | |

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Holly Taylor
Project Manager

# Analytical Report 647206

## for

## Larson and Associates, Inc.

**Project Manager: Mark Larson**

**Chevron Culebra Bluff**

**19-0180-07**

**31-DEC-19**

Collected By: Client

**1211 W. Florida Ave**
**Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

31-DEC-19

Project Manager: **Mark Larson**
**Larson and Associates, Inc.**
P. O. Box 50685
Midland, TX 79710

Reference: XENCO Report No(s): **647206**
**Chevron Culebra Bluff**
Project Address: NM

**Mark Larson**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 647206. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 647206 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

**Holly Taylor**
Project Manager

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*Certified and approved by numerous States and Agencies.*
*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

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# Sample Cross Reference 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---|---|---|---|---|
| S-23 (0.5') | S | 12-17-19 10:41 | | 647206-001 |
| S-23 (1') | S | 12-17-19 10:42 | | 647206-002 |
| S-17 (1.5') | S | 12-17-19 13:21 | | 647206-003 |
| S-10 (5') | S | 12-17-19 13:48 | | 647206-004 |
| S-16 (1') | S | 12-17-19 14:30 | | 647206-005 |
| S-15 (1') | S | 12-17-19 15:04 | | 647206-006 |
| S-14 (5') | S | 12-17-19 15:15 | | 647206-007 |
| S-13 (5') | S | 12-17-19 15:43 | | 647206-008 |
| S-12 (5') | S | 12-17-19 16:09 | | 647206-009 |
| S-12 (7') | S | 12-17-19 16:10 | | 647206-010 |
| S-11 (5') | S | 12-17-19 16:42 | | 647206-011 |
| S-11 (7') | S | 12-17-19 16:45 | | 647206-012 |
| S-9 (5') | S | 12-17-19 16:58 | | 647206-013 |
| S-9 (7') | S | 12-17-19 16:59 | | 647206-014 |
| S-8 (5') | S | 12-18-19 09:08 | | 647206-015 |
| S-7 (5') | S | 12-18-19 09:19 | | 647206-016 |
| S-6 (5') | S | 12-18-19 09:36 | | 647206-017 |
| S-6 (7') | S | 12-18-19 09:42 | | 647206-018 |
| S-5 (5') | S | 12-18-19 09:57 | | 647206-019 |
| S-5 (7') | S | 12-18-19 10:02 | | 647206-020 |
| S-4 (5') | S | 12-18-19 10:17 | | 647206-021 |
| S-4 (7') | S | 12-18-19 10:26 | | 647206-022 |
| S-3 (5') | S | 12-18-19 10:55 | | 647206-023 |
| S-3 (7') | S | 12-18-19 11:00 | | 647206-024 |
| S-2 (5') | S | 12-18-19 11:13 | | 647206-025 |
| S-2 (7') | S | 12-18-19 11:19 | | 647206-026 |
| S-1 (5') | S | 12-18-19 11:30 | | 647206-027 |
| S-1 (7') | S | 12-18-19 11:34 | | 647206-028 |
| S-21 (5') | S | 12-18-19 12:04 | | 647206-029 |
| S-21 (10') | S | 12-18-19 12:07 | | 647206-030 |
| S-18 (2') | S | 12-18-19 12:37 | | 647206-031 |
| S-19 (3') | S | 12-18-19 12:52 | | 647206-032 |
| S-20 (3') | S | 12-18-19 13:45 | | 647206-033 |
| S-22 (3') | S | 12-18-19 13:53 | | 647206-034 |
| S-24 (0.5') | S | 12-18-19 13:56 | | 647206-035 |
| S-24 (1') | S | 12-18-19 13:57 | | 647206-036 |
| S-25 (0.5') | S | 12-18-19 13:59 | | 647206-037 |
| S-25 (1') | S | 12-18-19 14:03 | | 647206-038 |

# CASE NARRATIVE



***Client Name: Larson and Associates, Inc.***
***Project Name: Chevron Culebra Bluff***

Project ID: *19-0180-07*
Work Order Number(s): *647206*

Report Date: *31-DEC-19*
Date Received: *12/20/2019*

**Sample receipt non conformances and comments:**

None

**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3111388 Chloride by EPA 300
Lab Sample ID 647206-032 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 647206-027, -028, -029, -030, -031, -032, -033, -034, -035, -036.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3111390 Chloride by EPA 300
Lab Sample ID 647206-017 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 647206-007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022, -023, -024, -025, -026.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3111563 Chloride by EPA 300
Lab Sample ID 647361-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3111938 BTEX by EPA 8021B
Lab Sample ID 647206-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). o-Xylene recovered below QC limits in the Matrix Spike. Ethylbenzene, Toluene, m,p-Xylenes recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 647206-001, -002, -003, -004, -005, -006, -007, -008, -009, -010.
The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

# CASE NARRATIVE

***Client Name: Larson and Associates, Inc.***
***Project Name: Chevron Culebra Bluff***

Project ID: *19-0180-07*
Work Order Number(s): *647206*

Report Date: *31-DEC-19*
Date Received: *12/20/2019*

Batch: LBA-3111947 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3112074 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-23 (0.5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-001 | Date Collected: | 12.17.19 10.41 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.05 | Basis: | Wet Weight |
| Seq Number: | 3111364 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **6.05** | 5.00 | mg/kg | 12.20.19 22.24 | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.20.19 17.00 | Basis: | Wet Weight |
| Seq Number: | 3111414 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.21.19 13.23 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.21.19 13.23 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.21.19 13.23 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.21.19 13.23 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 105 | % | 70-135 | 12.21.19 13.23 | |
| o-Terphenyl | 84-15-1 | 109 | % | 70-135 | 12.21.19 13.23 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-23 (0.5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-001 | Date Collected: | 12.17.19 10.41 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.26.19 17.15 | Basis: | Wet Weight |
| Seq Number: | 3111938 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00201 | 0.00201 | mg/kg | 12.27.19 08.20 | U | 1 |
| Toluene | 108-88-3 | <0.00201 | 0.00201 | mg/kg | 12.27.19 08.20 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00201 | 0.00201 | mg/kg | 12.27.19 08.20 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00402 | 0.00402 | mg/kg | 12.27.19 08.20 | U | 1 |
| o-Xylene | 95-47-6 | <0.00201 | 0.00201 | mg/kg | 12.27.19 08.20 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00201 | 0.00201 | mg/kg | 12.27.19 08.20 | U | 1 |
| Total BTEX | | <0.00201 | 0.00201 | mg/kg | 12.27.19 08.20 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 93 | % | 70-130 | 12.27.19 08.20 | |
| 1,4-Difluorobenzene | 540-36-3 | 113 | % | 70-130 | 12.27.19 08.20 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-23 (1')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-002 Date Collected: 12.17.19 10.42

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.05 Basis: Wet Weight

Seq Number: 3111364

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **9.26** | 5.00 | mg/kg | 12.20.19 22.31 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.21.19 14.27 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.21.19 14.27 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.21.19 14.27 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.21.19 14.27 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 101 | % | 70-135 | 12.21.19 14.27 | |
| o-Terphenyl | 84-15-1 | 106 | % | 70-135 | 12.21.19 14.27 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-23 (1')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-002 | Date Collected: | 12.17.19 10.42 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.26.19 17.15 | Basis: | Wet Weight |
| Seq Number: | 3111938 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.27.19 08.40 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.27.19 08.40 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.27.19 08.40 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00400 | 0.00400 | mg/kg | 12.27.19 08.40 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.27.19 08.40 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.27.19 08.40 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.27.19 08.40 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 99 | % | 70-130 | 12.27.19 08.40 | |
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.27.19 08.40 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-17 (1.5')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-003 Date Collected: 12.17.19 13.21

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.05 Basis: Wet Weight

Seq Number: 3111364

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **6040** | 50.0 | mg/kg | 12.20.19 22.38 | | 10 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.8 | 49.8 | mg/kg | 12.21.19 14.48 | U | 1 |
| **Diesel Range Organics** | C10C28DRO | **703** | 49.8 | mg/kg | 12.21.19 14.48 | | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.8 | 49.8 | mg/kg | 12.21.19 14.48 | U | 1 |
| **Total TPH** | PHC635 | **703** | 49.8 | mg/kg | 12.21.19 14.48 | | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 101 | % | 70-135 | 12.21.19 14.48 | |
| o-Terphenyl | 84-15-1 | 107 | % | 70-135 | 12.21.19 14.48 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-17 (1.5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-003 | Date Collected: | 12.17.19 13.21 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.26.19 17.15 | Basis: | Wet Weight |
| Seq Number: | 3111938 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00202 | 0.00202 | mg/kg | 12.27.19 09.00 | U | 1 |
| Toluene | 108-88-3 | <0.00202 | 0.00202 | mg/kg | 12.27.19 09.00 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00202 | 0.00202 | mg/kg | 12.27.19 09.00 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00403 | 0.00403 | mg/kg | 12.27.19 09.00 | U | 1 |
| o-Xylene | 95-47-6 | <0.00202 | 0.00202 | mg/kg | 12.27.19 09.00 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00202 | 0.00202 | mg/kg | 12.27.19 09.00 | U | 1 |
| Total BTEX | | <0.00202 | 0.00202 | mg/kg | 12.27.19 09.00 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 101 | % | 70-130 | 12.27.19 09.00 | |
| 1,4-Difluorobenzene | 540-36-3 | 117 | % | 70-130 | 12.27.19 09.00 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-10 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-004 | Date Collected: | 12.17.19 13.48 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.05 | Basis: | Wet Weight |
| Seq Number: | 3111364 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1340** | 5.00 | mg/kg | 12.20.19 22.45 | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.20.19 17.00 | Basis: | Wet Weight |
| Seq Number: | 3111414 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 15.09 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.21.19 15.09 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.21.19 15.09 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.21.19 15.09 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 100 | % | 70-135 | 12.21.19 15.09 | |
| o-Terphenyl | 84-15-1 | 103 | % | 70-135 | 12.21.19 15.09 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-10 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-004 | Date Collected: | 12.17.19 13.48 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.26.19 17.15 | Basis: | Wet Weight |
| Seq Number: | 3111938 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00199 | 0.00199 | mg/kg | 12.27.19 09.21 | U | 1 |
| Toluene | 108-88-3 | <0.00199 | 0.00199 | mg/kg | 12.27.19 09.21 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00199 | 0.00199 | mg/kg | 12.27.19 09.21 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00398 | 0.00398 | mg/kg | 12.27.19 09.21 | U | 1 |
| o-Xylene | 95-47-6 | <0.00199 | 0.00199 | mg/kg | 12.27.19 09.21 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00199 | 0.00199 | mg/kg | 12.27.19 09.21 | U | 1 |
| Total BTEX | | <0.00199 | 0.00199 | mg/kg | 12.27.19 09.21 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 100 | % | 70-130 | 12.27.19 09.21 | |
| 1,4-Difluorobenzene | 540-36-3 | 112 | % | 70-130 | 12.27.19 09.21 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-16 (1')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-005 Date Collected: 12.17.19 14.30

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.05 Basis: Wet Weight

Seq Number: 3111364

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1470** | 25.0 | mg/kg | 12.20.19 22.53 | | 5 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 15.30 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.21.19 15.30 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.21.19 15.30 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.21.19 15.30 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 103 | % | 70-135 | 12.21.19 15.30 | |
| o-Terphenyl | 84-15-1 | 109 | % | 70-135 | 12.21.19 15.30 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-16 (1')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-005 | Date Collected: | 12.17.19 14.30 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.26.19 17.15 | Basis: | Wet Weight |
| Seq Number: | 3111938 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.27.19 09.41 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.27.19 09.41 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.27.19 09.41 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00401 | 0.00401 | mg/kg | 12.27.19 09.41 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.27.19 09.41 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.27.19 09.41 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.27.19 09.41 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.27.19 09.41 | |
| 4-Bromofluorobenzene | 460-00-4 | 101 | % | 70-130 | 12.27.19 09.41 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-15 (1')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-006 Date Collected: 12.17.19 15.04

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.05 Basis: Wet Weight

Seq Number: 3111364

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **4960** | 50.0 | mg/kg | 12.20.19 23.00 | | 10 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 15.51 | U | 1 |
| **Diesel Range Organics** | C10C28DRO | **1070** | 50.0 | mg/kg | 12.21.19 15.51 | | 1 |
| **Oil Range Hydrocarbons** | PHCG2835 | **205** | 50.0 | mg/kg | 12.21.19 15.51 | | 1 |
| **Total TPH** | PHC635 | **1280** | 50.0 | mg/kg | 12.21.19 15.51 | | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 82 | % | 70-135 | 12.21.19 15.51 | |
| o-Terphenyl | 84-15-1 | 94 | % | 70-135 | 12.21.19 15.51 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-15 (1')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-006 | Date Collected: | 12.17.19 15.04 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.26.19 17.15 | Basis: | Wet Weight |
| Seq Number: | 3111938 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.02 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.02 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.02 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00401 | 0.00401 | mg/kg | 12.27.19 10.02 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.02 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.02 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.02 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 96 | % | 70-130 | 12.27.19 10.02 | |
| 1,4-Difluorobenzene | 540-36-3 | 114 | % | 70-130 | 12.27.19 10.02 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-14 (5')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-007 Date Collected: 12.17.19 15.15

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1120** | 4.96 | mg/kg | 12.22.19 16.32 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.21.19 16.12 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.21.19 16.12 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.21.19 16.12 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.21.19 16.12 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 102 | % | 70-135 | 12.21.19 16.12 | |
| o-Terphenyl | 84-15-1 | 109 | % | 70-135 | 12.21.19 16.12 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-14 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-007 | Date Collected: | 12.17.19 15.15 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.26.19 17.15 | Basis: | Wet Weight |
| Seq Number: | 3111938 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00201 | 0.00201 | mg/kg | 12.27.19 10.22 | U | 1 |
| Toluene | 108-88-3 | <0.00201 | 0.00201 | mg/kg | 12.27.19 10.22 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00201 | 0.00201 | mg/kg | 12.27.19 10.22 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00402 | 0.00402 | mg/kg | 12.27.19 10.22 | U | 1 |
| o-Xylene | 95-47-6 | <0.00201 | 0.00201 | mg/kg | 12.27.19 10.22 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00201 | 0.00201 | mg/kg | 12.27.19 10.22 | U | 1 |
| Total BTEX | | <0.00201 | 0.00201 | mg/kg | 12.27.19 10.22 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 114 | % | 70-130 | 12.27.19 10.22 | |
| 4-Bromofluorobenzene | 460-00-4 | 100 | % | 70-130 | 12.27.19 10.22 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-13 (5')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-008 Date Collected: 12.17.19 15.43

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1080** | 5.04 | mg/kg | 12.22.19 16.13 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 16.33 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.21.19 16.33 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.21.19 16.33 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.21.19 16.33 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 103 | % | 70-135 | 12.21.19 16.33 | |
| o-Terphenyl | 84-15-1 | 106 | % | 70-135 | 12.21.19 16.33 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-13 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-008 | Date Collected: | 12.17.19 15.43 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.26.19 17.15 | Basis: | Wet Weight |
| Seq Number: | 3111938 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.43 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.43 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.43 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00401 | 0.00401 | mg/kg | 12.27.19 10.43 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.43 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.43 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.27.19 10.43 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 104 | % | 70-130 | 12.27.19 10.43 | |
| 1,4-Difluorobenzene | 540-36-3 | 116 | % | 70-130 | 12.27.19 10.43 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-12 (5')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-009 Date Collected: 12.17.19 16.09

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **671** | 5.00 | mg/kg | 12.22.19 16.39 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.8 | 49.8 | mg/kg | 12.21.19 16.54 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.8 | 49.8 | mg/kg | 12.21.19 16.54 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.8 | 49.8 | mg/kg | 12.21.19 16.54 | U | 1 |
| Total TPH | PHC635 | <49.8 | 49.8 | mg/kg | 12.21.19 16.54 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 100 | % | 70-135 | 12.21.19 16.54 | |
| o-Terphenyl | 84-15-1 | 103 | % | 70-135 | 12.21.19 16.54 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-12 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-009 | Date Collected: | 12.17.19 16.09 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.26.19 17.15 | Basis: | Wet Weight |
| Seq Number: | 3111938 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.27.19 11.03 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.27.19 11.03 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.27.19 11.03 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00399 | 0.00399 | mg/kg | 12.27.19 11.03 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.27.19 11.03 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.27.19 11.03 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.27.19 11.03 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 99 | % | 70-130 | 12.27.19 11.03 | |
| 1,4-Difluorobenzene | 540-36-3 | 114 | % | 70-130 | 12.27.19 11.03 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-12 (7')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-010 Date Collected: 12.17.19 16.10

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **828** | 5.03 | mg/kg | 12.22.19 16.45 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 17.15 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.21.19 17.15 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.21.19 17.15 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.21.19 17.15 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 98 | % | 70-135 | 12.21.19 17.15 | |
| o-Terphenyl | 84-15-1 | 101 | % | 70-135 | 12.21.19 17.15 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-12 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-010 | Date Collected: | 12.17.19 16.10 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.26.19 17.15 | Basis: | Wet Weight |
| Seq Number: | 3111938 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00199 | 0.00199 | mg/kg | 12.27.19 11.24 | U | 1 |
| Toluene | 108-88-3 | <0.00199 | 0.00199 | mg/kg | 12.27.19 11.24 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00199 | 0.00199 | mg/kg | 12.27.19 11.24 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00398 | 0.00398 | mg/kg | 12.27.19 11.24 | U | 1 |
| o-Xylene | 95-47-6 | <0.00199 | 0.00199 | mg/kg | 12.27.19 11.24 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00199 | 0.00199 | mg/kg | 12.27.19 11.24 | U | 1 |
| Total BTEX | | <0.00199 | 0.00199 | mg/kg | 12.27.19 11.24 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 99 | % | 70-130 | 12.27.19 11.24 | |
| 1,4-Difluorobenzene | 540-36-3 | 114 | % | 70-130 | 12.27.19 11.24 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-11 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-011 | Date Collected: | 12.17.19 16.42 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.25 | Basis: | Wet Weight |
| Seq Number: | 3111390 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1540** | 25.1 | mg/kg | 12.22.19 16.52 | | 5 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.20.19 17.00 | Basis: | Wet Weight |
| Seq Number: | 3111414 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 17.57 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.21.19 17.57 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.21.19 17.57 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.21.19 17.57 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 104 | % | 70-135 | 12.21.19 17.57 | |
| o-Terphenyl | 84-15-1 | 111 | % | 70-135 | 12.21.19 17.57 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-11 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-011 | Date Collected: | 12.17.19 16.42 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.29.19 12.00 | Basis: | Wet Weight |
| Seq Number: | 3111947 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.20 | U | 1 |
| Toluene | 108-88-3 | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.20 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.20 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00398 | 0.00398 | mg/kg | 12.29.19 21.20 | U | 1 |
| o-Xylene | 95-47-6 | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.20 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.20 | U | 1 |
| Total BTEX | | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.20 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 98 | % | 70-130 | 12.29.19 21.20 | |
| 1,4-Difluorobenzene | 540-36-3 | 114 | % | 70-130 | 12.29.19 21.20 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-11 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-012 | Date Collected: | 12.17.19 16.45 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.25 | Basis: | Wet Weight |
| Seq Number: | 3111390 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **992** | 4.98 | mg/kg | 12.22.19 17.12 | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.20.19 17.00 | Basis: | Wet Weight |
| Seq Number: | 3111414 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.21.19 18.18 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.21.19 18.18 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.21.19 18.18 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.21.19 18.18 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 100 | % | 70-135 | 12.21.19 18.18 | |
| o-Terphenyl | 84-15-1 | 105 | % | 70-135 | 12.21.19 18.18 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-11 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-012 | Date Collected: | 12.17.19 16.45 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.29.19 12.00 | Basis: | Wet Weight |
| Seq Number: | 3111947 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.41 | U | 1 |
| Toluene | 108-88-3 | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.41 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.41 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00398 | 0.00398 | mg/kg | 12.29.19 21.41 | U | 1 |
| o-Xylene | 95-47-6 | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.41 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.41 | U | 1 |
| Total BTEX | | <0.00199 | 0.00199 | mg/kg | 12.29.19 21.41 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 114 | % | 70-130 | 12.29.19 21.41 | |
| 4-Bromofluorobenzene | 460-00-4 | 104 | % | 70-130 | 12.29.19 21.41 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-9 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-013 | Date Collected: | 12.17.19 16.58 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.25 | Basis: | Wet Weight |
| Seq Number: | 3111390 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **2060** | 24.8 | mg/kg | 12.22.19 17.18 | | 5 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.20.19 17.00 | Basis: | Wet Weight |
| Seq Number: | 3111414 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.21.19 18.39 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.21.19 18.39 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.21.19 18.39 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.21.19 18.39 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 101 | % | 70-135 | 12.21.19 18.39 | |
| o-Terphenyl | 84-15-1 | 106 | % | 70-135 | 12.21.19 18.39 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-9 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-013 | Date Collected: | 12.17.19 16.58 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.29.19 12.00 | Basis: | Wet Weight |
| Seq Number: | 3111947 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00198 | 0.00198 | mg/kg | 12.29.19 22.01 | U | 1 |
| Toluene | 108-88-3 | <0.00198 | 0.00198 | mg/kg | 12.29.19 22.01 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00198 | 0.00198 | mg/kg | 12.29.19 22.01 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00397 | 0.00397 | mg/kg | 12.29.19 22.01 | U | 1 |
| o-Xylene | 95-47-6 | <0.00198 | 0.00198 | mg/kg | 12.29.19 22.01 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00198 | 0.00198 | mg/kg | 12.29.19 22.01 | U | 1 |
| Total BTEX | | <0.00198 | 0.00198 | mg/kg | 12.29.19 22.01 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.29.19 22.01 | |
| 4-Bromofluorobenzene | 460-00-4 | 100 | % | 70-130 | 12.29.19 22.01 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-9 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-014 | Date Collected: | 12.17.19 16.59 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.25 | Basis: | Wet Weight |
| Seq Number: | 3111390 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **293** | 4.95 | mg/kg | 12.22.19 17.25 | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.20.19 17.00 | Basis: | Wet Weight |
| Seq Number: | 3111414 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 19.00 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.21.19 19.00 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.21.19 19.00 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.21.19 19.00 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 103 | % | 70-135 | 12.21.19 19.00 | |
| o-Terphenyl | 84-15-1 | 108 | % | 70-135 | 12.21.19 19.00 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-9 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-014 | Date Collected: | 12.17.19 16.59 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.29.19 12.00 | Basis: | Wet Weight |
| Seq Number: | 3111947 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00201 | 0.00201 | mg/kg | 12.29.19 23.42 | U | 1 |
| Toluene | 108-88-3 | <0.00201 | 0.00201 | mg/kg | 12.29.19 23.42 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00201 | 0.00201 | mg/kg | 12.29.19 23.42 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00402 | 0.00402 | mg/kg | 12.29.19 23.42 | U | 1 |
| o-Xylene | 95-47-6 | <0.00201 | 0.00201 | mg/kg | 12.29.19 23.42 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00201 | 0.00201 | mg/kg | 12.29.19 23.42 | U | 1 |
| Total BTEX | | <0.00201 | 0.00201 | mg/kg | 12.29.19 23.42 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 112 | % | 70-130 | 12.29.19 23.42 | |
| 4-Bromofluorobenzene | 460-00-4 | 95 | % | 70-130 | 12.29.19 23.42 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-8 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-015 | Date Collected: | 12.18.19 09.08 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.25 | Basis: | Wet Weight |
| Seq Number: | 3111390 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1880** | 24.8 | mg/kg | 12.22.19 17.31 | | 5 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.20.19 17.00 | Basis: | Wet Weight |
| Seq Number: | 3111414 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.21.19 19.20 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.21.19 19.20 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.21.19 19.20 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.21.19 19.20 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 100 | % | 70-135 | 12.21.19 19.20 | |
| o-Terphenyl | 84-15-1 | 105 | % | 70-135 | 12.21.19 19.20 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-8 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-015 | Date Collected: | 12.18.19 09.08 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.29.19 12.00 | Basis: | Wet Weight |
| Seq Number: | 3111947 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.30.19 00.03 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.30.19 00.03 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.30.19 00.03 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00400 | 0.00400 | mg/kg | 12.30.19 00.03 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.30.19 00.03 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.30.19 00.03 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.30.19 00.03 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 92 | % | 70-130 | 12.30.19 00.03 | |
| 1,4-Difluorobenzene | 540-36-3 | 110 | % | 70-130 | 12.30.19 00.03 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-7 (5')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-016 Date Collected: 12.18.19 09.19

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **3130** | 24.9 | mg/kg | 12.22.19 17.38 | | 5 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.8 | 49.8 | mg/kg | 12.21.19 19.42 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.8 | 49.8 | mg/kg | 12.21.19 19.42 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.8 | 49.8 | mg/kg | 12.21.19 19.42 | U | 1 |
| Total TPH | PHC635 | <49.8 | 49.8 | mg/kg | 12.21.19 19.42 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 103 | % | 70-135 | 12.21.19 19.42 | |
| o-Terphenyl | 84-15-1 | 109 | % | 70-135 | 12.21.19 19.42 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-7 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-016 | Date Collected: | 12.18.19 09.19 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.29.19 12.00 | Basis: | Wet Weight |
| Seq Number: | 3111947 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00201 | 0.00201 | mg/kg | 12.30.19 00.23 | U | 1 |
| Toluene | 108-88-3 | <0.00201 | 0.00201 | mg/kg | 12.30.19 00.23 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00201 | 0.00201 | mg/kg | 12.30.19 00.23 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00402 | 0.00402 | mg/kg | 12.30.19 00.23 | U | 1 |
| o-Xylene | 95-47-6 | <0.00201 | 0.00201 | mg/kg | 12.30.19 00.23 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00201 | 0.00201 | mg/kg | 12.30.19 00.23 | U | 1 |
| Total BTEX | | <0.00201 | 0.00201 | mg/kg | 12.30.19 00.23 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 98 | % | 70-130 | 12.30.19 00.23 | |
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.30.19 00.23 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-6 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-017 | Date Collected: | 12.18.19 09.36 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.25 | Basis: | Wet Weight |
| Seq Number: | 3111390 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1030** | 5.04 | mg/kg | 12.22.19 17.44 | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.20.19 17.00 | Basis: | Wet Weight |
| Seq Number: | 3111414 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 20.03 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.21.19 20.03 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.21.19 20.03 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.21.19 20.03 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 94 | % | 70-135 | 12.21.19 20.03 | |
| o-Terphenyl | 84-15-1 | 97 | % | 70-135 | 12.21.19 20.03 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-6 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-017 | Date Collected: | 12.18.19 09.36 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.29.19 12.00 | Basis: | Wet Weight |
| Seq Number: | 3111947 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00198 | 0.00198 | mg/kg | 12.30.19 00.43 | U | 1 |
| Toluene | 108-88-3 | <0.00198 | 0.00198 | mg/kg | 12.30.19 00.43 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00198 | 0.00198 | mg/kg | 12.30.19 00.43 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00397 | 0.00397 | mg/kg | 12.30.19 00.43 | U | 1 |
| o-Xylene | 95-47-6 | <0.00198 | 0.00198 | mg/kg | 12.30.19 00.43 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00198 | 0.00198 | mg/kg | 12.30.19 00.43 | U | 1 |
| Total BTEX | | <0.00198 | 0.00198 | mg/kg | 12.30.19 00.43 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 100 | % | 70-130 | 12.30.19 00.43 | |
| 1,4-Difluorobenzene | 540-36-3 | 114 | % | 70-130 | 12.30.19 00.43 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-6 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-018 | Date Collected: | 12.18.19 09.42 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.25 | Basis: | Wet Weight |
| Seq Number: | 3111390 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **913** | 4.96 | mg/kg | 12.22.19 18.04 | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.20.19 17.00 | Basis: | Wet Weight |
| Seq Number: | 3111414 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 20.24 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.21.19 20.24 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.21.19 20.24 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.21.19 20.24 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 99 | % | 70-135 | 12.21.19 20.24 | |
| o-Terphenyl | 84-15-1 | 104 | % | 70-135 | 12.21.19 20.24 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-6 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-018 | Date Collected: | 12.18.19 09.42 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.29.19 12.00 | Basis: | Wet Weight |
| Seq Number: | 3111947 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.30.19 01.04 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.30.19 01.04 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.30.19 01.04 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00399 | 0.00399 | mg/kg | 12.30.19 01.04 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.30.19 01.04 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.30.19 01.04 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.30.19 01.04 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 100 | % | 70-130 | 12.30.19 01.04 | |
| 1,4-Difluorobenzene | 540-36-3 | 113 | % | 70-130 | 12.30.19 01.04 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-5 (5')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-019 Date Collected: 12.18.19 09.57

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **2930** | 25.1 | mg/kg | 12.22.19 18.11 | | 5 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 20.46 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.21.19 20.46 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.21.19 20.46 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.21.19 20.46 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 101 | % | 70-135 | 12.21.19 20.46 | |
| o-Terphenyl | 84-15-1 | 105 | % | 70-135 | 12.21.19 20.46 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-5 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-019 | Date Collected: | 12.18.19 09.57 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.29.19 12.00 | Basis: | Wet Weight |
| Seq Number: | 3111947 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00199 | 0.00199 | mg/kg | 12.30.19 01.24 | U | 1 |
| Toluene | 108-88-3 | <0.00199 | 0.00199 | mg/kg | 12.30.19 01.24 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00199 | 0.00199 | mg/kg | 12.30.19 01.24 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00398 | 0.00398 | mg/kg | 12.30.19 01.24 | U | 1 |
| o-Xylene | 95-47-6 | <0.00199 | 0.00199 | mg/kg | 12.30.19 01.24 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00199 | 0.00199 | mg/kg | 12.30.19 01.24 | U | 1 |
| Total BTEX | | <0.00199 | 0.00199 | mg/kg | 12.30.19 01.24 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.30.19 01.24 | |
| 4-Bromofluorobenzene | 460-00-4 | 97 | % | 70-130 | 12.30.19 01.24 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-5 (7')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-020 Date Collected: 12.18.19 10.02

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **2770** | 25.2 | mg/kg | 12.22.19 18.30 | | 5 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.20.19 17.00 Basis: Wet Weight

Seq Number: 3111414

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.8 | 49.8 | mg/kg | 12.21.19 21.07 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.8 | 49.8 | mg/kg | 12.21.19 21.07 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.8 | 49.8 | mg/kg | 12.21.19 21.07 | U | 1 |
| Total TPH | PHC635 | <49.8 | 49.8 | mg/kg | 12.21.19 21.07 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 102 | % | 70-135 | 12.21.19 21.07 | |
| o-Terphenyl | 84-15-1 | 107 | % | 70-135 | 12.21.19 21.07 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-5 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-020 | Date Collected: | 12.18.19 10.02 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.29.19 12.00 | Basis: | Wet Weight |
| Seq Number: | 3111947 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00198 | 0.00198 | mg/kg | 12.30.19 09.03 | U | 1 |
| Toluene | 108-88-3 | <0.00198 | 0.00198 | mg/kg | 12.30.19 09.03 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00198 | 0.00198 | mg/kg | 12.30.19 09.03 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00396 | 0.00396 | mg/kg | 12.30.19 09.03 | U | 1 |
| o-Xylene | 95-47-6 | <0.00198 | 0.00198 | mg/kg | 12.30.19 09.03 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00198 | 0.00198 | mg/kg | 12.30.19 09.03 | U | 1 |
| Total BTEX | | <0.00198 | 0.00198 | mg/kg | 12.30.19 09.03 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 99 | % | 70-130 | 12.30.19 09.03 | |
| 1,4-Difluorobenzene | 540-36-3 | 107 | % | 70-130 | 12.30.19 09.03 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-4 (5')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-021 Date Collected: 12.18.19 10.17

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **5390** | 49.8 | mg/kg | 12.22.19 18.37 | | 10 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.21.19 22.52 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.21.19 22.52 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.21.19 22.52 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.21.19 22.52 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 103 | % | 70-135 | 12.21.19 22.52 | |
| o-Terphenyl | 84-15-1 | 108 | % | 70-135 | 12.21.19 22.52 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-4 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-021 | Date Collected: | 12.18.19 10.17 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.30.19 13.45 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.30.19 13.45 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.30.19 13.45 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00401 | 0.00401 | mg/kg | 12.30.19 13.45 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.30.19 13.45 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.30.19 13.45 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.30.19 13.45 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 110 | % | 70-130 | 12.30.19 13.45 | |
| 4-Bromofluorobenzene | 460-00-4 | 91 | % | 70-130 | 12.30.19 13.45 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-4 (7')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-022 Date Collected: 12.18.19 10.26

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **2630** | 25.3 | mg/kg | 12.22.19 18.43 | | 5 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.8 | 49.8 | mg/kg | 12.21.19 23.55 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.8 | 49.8 | mg/kg | 12.21.19 23.55 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.8 | 49.8 | mg/kg | 12.21.19 23.55 | U | 1 |
| Total TPH | PHC635 | <49.8 | 49.8 | mg/kg | 12.21.19 23.55 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 100 | % | 70-135 | 12.21.19 23.55 | |
| o-Terphenyl | 84-15-1 | 105 | % | 70-135 | 12.21.19 23.55 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-4 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-022 | Date Collected: | 12.18.19 10.26 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.30.19 14.26 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.30.19 14.26 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.30.19 14.26 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00399 | 0.00399 | mg/kg | 12.30.19 14.26 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.30.19 14.26 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.30.19 14.26 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.30.19 14.26 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 127 | % | 70-130 | 12.30.19 14.26 | |
| 1,4-Difluorobenzene | 540-36-3 | 114 | % | 70-130 | 12.30.19 14.26 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-3 (5')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-023 Date Collected: 12.18.19 10.55

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **2380** | 24.8 | mg/kg | 12.22.19 18.50 | | 5 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.22.19 00.16 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.22.19 00.16 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.22.19 00.16 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.22.19 00.16 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 102 | % | 70-135 | 12.22.19 00.16 | |
| o-Terphenyl | 84-15-1 | 106 | % | 70-135 | 12.22.19 00.16 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-3 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-023 | Date Collected: | 12.18.19 10.55 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00198 | 0.00198 | mg/kg | 12.30.19 14.47 | U | 1 |
| Toluene | 108-88-3 | <0.00198 | 0.00198 | mg/kg | 12.30.19 14.47 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00198 | 0.00198 | mg/kg | 12.30.19 14.47 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00397 | 0.00397 | mg/kg | 12.30.19 14.47 | U | 1 |
| o-Xylene | 95-47-6 | <0.00198 | 0.00198 | mg/kg | 12.30.19 14.47 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00198 | 0.00198 | mg/kg | 12.30.19 14.47 | U | 1 |
| Total BTEX | | <0.00198 | 0.00198 | mg/kg | 12.30.19 14.47 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 112 | % | 70-130 | 12.30.19 14.47 | |
| 4-Bromofluorobenzene | 460-00-4 | 106 | % | 70-130 | 12.30.19 14.47 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-3 (7')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-024 Date Collected: 12.18.19 11.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.20.19 16.25 Basis: Wet Weight

Seq Number: 3111390

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1850** | 25.0 | mg/kg | 12.22.19 18.56 | | 5 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.22.19 00.36 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.22.19 00.36 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.22.19 00.36 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.22.19 00.36 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 101 | % | 70-135 | 12.22.19 00.36 | |
| o-Terphenyl | 84-15-1 | 106 | % | 70-135 | 12.22.19 00.36 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-3 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-024 | Date Collected: | 12.18.19 11.00 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.30.19 15.18 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.30.19 15.18 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.30.19 15.18 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00400 | 0.00400 | mg/kg | 12.30.19 15.18 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.30.19 15.18 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.30.19 15.18 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.30.19 15.18 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 112 | % | 70-130 | 12.30.19 15.18 | |
| 4-Bromofluorobenzene | 460-00-4 | 105 | % | 70-130 | 12.30.19 15.18 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-2 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-025 | Date Collected: | 12.18.19 11.13 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.25 | Basis: | Wet Weight |
| Seq Number: | 3111390 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **851** | 25.0 | mg/kg | 12.22.19 19.03 | | 5 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.21.19 09.00 | Basis: | Wet Weight |
| Seq Number: | 3111415 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.22.19 00.58 | U | 1 |
| **Diesel Range Organics** | C10C28DRO | **139** | 50.0 | mg/kg | 12.22.19 00.58 | | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.22.19 00.58 | U | 1 |
| **Total TPH** | PHC635 | **139** | 50.0 | mg/kg | 12.22.19 00.58 | | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 98 | % | 70-135 | 12.22.19 00.58 | |
| o-Terphenyl | 84-15-1 | 105 | % | 70-135 | 12.22.19 00.58 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-2 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-025 | Date Collected: | 12.18.19 11.13 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00202 | 0.00202 | mg/kg | 12.30.19 15.38 | U | 1 |
| Toluene | 108-88-3 | <0.00202 | 0.00202 | mg/kg | 12.30.19 15.38 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00202 | 0.00202 | mg/kg | 12.30.19 15.38 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00403 | 0.00403 | mg/kg | 12.30.19 15.38 | U | 1 |
| o-Xylene | 95-47-6 | <0.00202 | 0.00202 | mg/kg | 12.30.19 15.38 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00202 | 0.00202 | mg/kg | 12.30.19 15.38 | U | 1 |
| Total BTEX | | <0.00202 | 0.00202 | mg/kg | 12.30.19 15.38 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 105 | % | 70-130 | 12.30.19 15.38 | |
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.30.19 15.38 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-2 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-026 | Date Collected: | 12.18.19 11.19 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.20.19 16.25 | Basis: | Wet Weight |
| Seq Number: | 3111390 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **2790** | 25.0 | mg/kg | 12.22.19 19.09 | | 5 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.21.19 09.00 | Basis: | Wet Weight |
| Seq Number: | 3111415 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.22.19 01.19 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.22.19 01.19 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.22.19 01.19 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.22.19 01.19 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 98 | % | 70-135 | 12.22.19 01.19 | |
| o-Terphenyl | 84-15-1 | 104 | % | 70-135 | 12.22.19 01.19 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-2 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-026 | Date Collected: | 12.18.19 11.19 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00198 | 0.00198 | mg/kg | 12.30.19 15.59 | U | 1 |
| Toluene | 108-88-3 | <0.00198 | 0.00198 | mg/kg | 12.30.19 15.59 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00198 | 0.00198 | mg/kg | 12.30.19 15.59 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00397 | 0.00397 | mg/kg | 12.30.19 15.59 | U | 1 |
| o-Xylene | 95-47-6 | <0.00198 | 0.00198 | mg/kg | 12.30.19 15.59 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00198 | 0.00198 | mg/kg | 12.30.19 15.59 | U | 1 |
| Total BTEX | | <0.00198 | 0.00198 | mg/kg | 12.30.19 15.59 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 99 | % | 70-130 | 12.30.19 15.59 | |
| 1,4-Difluorobenzene | 540-36-3 | 113 | % | 70-130 | 12.30.19 15.59 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-1 (5')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-027 Date Collected: 12.18.19 11.30

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.22.19 19.00 Basis: Wet Weight

Seq Number: 3111388

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **2020** | 24.9 | mg/kg | 12.22.19 21.47 | | 5 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.22.19 01.40 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.22.19 01.40 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.22.19 01.40 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.22.19 01.40 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 100 | % | 70-135 | 12.22.19 01.40 | |
| o-Terphenyl | 84-15-1 | 104 | % | 70-135 | 12.22.19 01.40 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-1 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-027 | Date Collected: | 12.18.19 11.30 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00198 | 0.00198 | mg/kg | 12.30.19 16.19 | U | 1 |
| Toluene | 108-88-3 | <0.00198 | 0.00198 | mg/kg | 12.30.19 16.19 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00198 | 0.00198 | mg/kg | 12.30.19 16.19 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00397 | 0.00397 | mg/kg | 12.30.19 16.19 | U | 1 |
| o-Xylene | 95-47-6 | <0.00198 | 0.00198 | mg/kg | 12.30.19 16.19 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00198 | 0.00198 | mg/kg | 12.30.19 16.19 | U | 1 |
| Total BTEX | | <0.00198 | 0.00198 | mg/kg | 12.30.19 16.19 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.30.19 16.19 | |
| 4-Bromofluorobenzene | 460-00-4 | 103 | % | 70-130 | 12.30.19 16.19 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-1 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-028 | Date Collected: | 12.18.19 11.34 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.22.19 19.00 | Basis: | Wet Weight |
| Seq Number: | 3111388 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1790** | 25.0 | mg/kg | 12.22.19 22.06 | | 5 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.21.19 09.00 | Basis: | Wet Weight |
| Seq Number: | 3111415 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.22.19 02.01 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.22.19 02.01 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.22.19 02.01 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.22.19 02.01 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 101 | % | 70-135 | 12.22.19 02.01 | |
| o-Terphenyl | 84-15-1 | 106 | % | 70-135 | 12.22.19 02.01 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-1 (7')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-028 | Date Collected: | 12.18.19 11.34 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.30.19 16.40 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.30.19 16.40 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.30.19 16.40 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00399 | 0.00399 | mg/kg | 12.30.19 16.40 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.30.19 16.40 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.30.19 16.40 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.30.19 16.40 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 101 | % | 70-130 | 12.30.19 16.40 | |
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.30.19 16.40 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-21 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-029 | Date Collected: | 12.18.19 12.04 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.22.19 19.00 | Basis: | Wet Weight |
| Seq Number: | 3111388 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **321** | 4.96 | mg/kg | 12.22.19 19.49 | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.21.19 09.00 | Basis: | Wet Weight |
| Seq Number: | 3111415 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.8 | 49.8 | mg/kg | 12.22.19 02.22 | U | 1 |
| **Diesel Range Organics** | C10C28DRO | **96.0** | 49.8 | mg/kg | 12.22.19 02.22 | | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.8 | 49.8 | mg/kg | 12.22.19 02.22 | U | 1 |
| **Total TPH** | PHC635 | **96.0** | 49.8 | mg/kg | 12.22.19 02.22 | | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 105 | % | 70-135 | 12.22.19 02.22 | |
| o-Terphenyl | 84-15-1 | 110 | % | 70-135 | 12.22.19 02.22 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-21 (5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-029 | Date Collected: | 12.18.19 12.04 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00199 | 0.00199 | mg/kg | 12.30.19 17.00 | U | 1 |
| Toluene | 108-88-3 | <0.00199 | 0.00199 | mg/kg | 12.30.19 17.00 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00199 | 0.00199 | mg/kg | 12.30.19 17.00 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00398 | 0.00398 | mg/kg | 12.30.19 17.00 | U | 1 |
| o-Xylene | 95-47-6 | <0.00199 | 0.00199 | mg/kg | 12.30.19 17.00 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00199 | 0.00199 | mg/kg | 12.30.19 17.00 | U | 1 |
| Total BTEX | | <0.00199 | 0.00199 | mg/kg | 12.30.19 17.00 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 104 | % | 70-130 | 12.30.19 17.00 | |
| 1,4-Difluorobenzene | 540-36-3 | 118 | % | 70-130 | 12.30.19 17.00 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-21 (10')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-030 | Date Collected: | 12.18.19 12.07 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.22.19 19.00 | Basis: | Wet Weight |
| Seq Number: | 3111388 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1770** | 25.0 | mg/kg | 12.22.19 22.13 | | 5 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.21.19 09.00 | Basis: | Wet Weight |
| Seq Number: | 3111415 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.22.19 02.43 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.22.19 02.43 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.22.19 02.43 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.22.19 02.43 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 98 | % | 70-135 | 12.22.19 02.43 | |
| o-Terphenyl | 84-15-1 | 102 | % | 70-135 | 12.22.19 02.43 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-21 (10')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-030 | Date Collected: | 12.18.19 12.07 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00201 | 0.00201 | mg/kg | 12.30.19 18.40 | U | 1 |
| Toluene | 108-88-3 | <0.00201 | 0.00201 | mg/kg | 12.30.19 18.40 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00201 | 0.00201 | mg/kg | 12.30.19 18.40 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00402 | 0.00402 | mg/kg | 12.30.19 18.40 | U | 1 |
| o-Xylene | 95-47-6 | <0.00201 | 0.00201 | mg/kg | 12.30.19 18.40 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00201 | 0.00201 | mg/kg | 12.30.19 18.40 | U | 1 |
| Total BTEX | | <0.00201 | 0.00201 | mg/kg | 12.30.19 18.40 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 112 | % | 70-130 | 12.30.19 18.40 | |
| 4-Bromofluorobenzene | 460-00-4 | 93 | % | 70-130 | 12.30.19 18.40 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-18 (2')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-031 Date Collected: 12.18.19 12.37

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.22.19 19.00 Basis: Wet Weight

Seq Number: 3111388

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1270** | 5.00 | mg/kg | 12.22.19 22.19 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.22.19 03.24 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.22.19 03.24 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.22.19 03.24 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.22.19 03.24 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 98 | % | 70-135 | 12.22.19 03.24 | |
| o-Terphenyl | 84-15-1 | 104 | % | 70-135 | 12.22.19 03.24 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-18 (2')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-031 | Date Collected: | 12.18.19 12.37 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00202 | 0.00202 | mg/kg | 12.30.19 19.00 | U | 1 |
| Toluene | 108-88-3 | <0.00202 | 0.00202 | mg/kg | 12.30.19 19.00 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00202 | 0.00202 | mg/kg | 12.30.19 19.00 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00403 | 0.00403 | mg/kg | 12.30.19 19.00 | U | 1 |
| o-Xylene | 95-47-6 | <0.00202 | 0.00202 | mg/kg | 12.30.19 19.00 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00202 | 0.00202 | mg/kg | 12.30.19 19.00 | U | 1 |
| Total BTEX | | <0.00202 | 0.00202 | mg/kg | 12.30.19 19.00 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 102 | % | 70-130 | 12.30.19 19.00 | |
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.30.19 19.00 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-19 (3')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-032 Date Collected: 12.18.19 12.52

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.22.19 19.00 Basis: Wet Weight

Seq Number: 3111388

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **34.9** | 4.98 | mg/kg | 12.22.19 21.20 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.8 | 49.8 | mg/kg | 12.22.19 03.45 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.8 | 49.8 | mg/kg | 12.22.19 03.45 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.8 | 49.8 | mg/kg | 12.22.19 03.45 | U | 1 |
| Total TPH | PHC635 | <49.8 | 49.8 | mg/kg | 12.22.19 03.45 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 99 | % | 70-135 | 12.22.19 03.45 | |
| o-Terphenyl | 84-15-1 | 103 | % | 70-135 | 12.22.19 03.45 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-19 (3')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-032 | Date Collected: | 12.18.19 12.52 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.20 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.20 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.20 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00399 | 0.00399 | mg/kg | 12.30.19 19.20 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.20 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.20 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.20 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 99 | % | 70-130 | 12.30.19 19.20 | |
| 1,4-Difluorobenzene | 540-36-3 | 113 | % | 70-130 | 12.30.19 19.20 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-20 (3')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-033 | Date Collected: | 12.18.19 13.45 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.22.19 19.00 | Basis: | Wet Weight |
| Seq Number: | 3111388 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **295** | 5.03 | mg/kg | 12.22.19 22.26 | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.21.19 09.00 | Basis: | Wet Weight |
| Seq Number: | 3111415 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.22.19 04.06 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.22.19 04.06 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.22.19 04.06 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.22.19 04.06 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 98 | % | 70-135 | 12.22.19 04.06 | |
| o-Terphenyl | 84-15-1 | 103 | % | 70-135 | 12.22.19 04.06 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-20 (3')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-033 | Date Collected: | 12.18.19 13.45 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.41 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.41 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.41 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00401 | 0.00401 | mg/kg | 12.30.19 19.41 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.41 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.41 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.30.19 19.41 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.30.19 19.41 | |
| 4-Bromofluorobenzene | 460-00-4 | 99 | % | 70-130 | 12.30.19 19.41 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-22 (3')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-034 Date Collected: 12.18.19 13.53

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.22.19 19.00 Basis: Wet Weight

Seq Number: 3111388

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1400** | 4.96 | mg/kg | 12.22.19 22.32 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.22.19 04.27 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.22.19 04.27 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.22.19 04.27 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.22.19 04.27 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 96 | % | 70-135 | 12.22.19 04.27 | |
| o-Terphenyl | 84-15-1 | 99 | % | 70-135 | 12.22.19 04.27 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-22 (3')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-034 | Date Collected: | 12.18.19 13.53 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.30.19 20.01 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.30.19 20.01 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.30.19 20.01 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00399 | 0.00399 | mg/kg | 12.30.19 20.01 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.30.19 20.01 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.30.19 20.01 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.30.19 20.01 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 99 | % | 70-130 | 12.30.19 20.01 | |
| 1,4-Difluorobenzene | 540-36-3 | 114 | % | 70-130 | 12.30.19 20.01 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-24 (0.5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-035 | Date Collected: | 12.18.19 13.56 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 12.22.19 19.00 | Basis: | Wet Weight |
| Seq Number: | 3111388 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **24.8** | 4.99 | mg/kg | 12.22.19 22.39 | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH By SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 12.21.19 09.00 | Basis: | Wet Weight |
| Seq Number: | 3111415 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.22.19 04.48 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.22.19 04.48 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.22.19 04.48 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.22.19 04.48 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 102 | % | 70-135 | 12.22.19 04.48 | |
| o-Terphenyl | 84-15-1 | 106 | % | 70-135 | 12.22.19 04.48 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-24 (0.5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-035 | Date Collected: | 12.18.19 13.56 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.22 | U | 1 |
| Toluene | 108-88-3 | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.22 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.22 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00397 | 0.00397 | mg/kg | 12.30.19 20.22 | U | 1 |
| o-Xylene | 95-47-6 | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.22 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.22 | U | 1 |
| Total BTEX | | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.22 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 97 | % | 70-130 | 12.30.19 20.22 | |
| 1,4-Difluorobenzene | 540-36-3 | 113 | % | 70-130 | 12.30.19 20.22 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-24 (1')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-036 Date Collected: 12.18.19 13.57

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.22.19 19.00 Basis: Wet Weight

Seq Number: 3111388

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **22.6** | 4.95 | mg/kg | 12.22.19 22.46 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.9 | 49.9 | mg/kg | 12.22.19 05.10 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.9 | 49.9 | mg/kg | 12.22.19 05.10 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.9 | 49.9 | mg/kg | 12.22.19 05.10 | U | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 12.22.19 05.10 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 95 | % | 70-135 | 12.22.19 05.10 | |
| o-Terphenyl | 84-15-1 | 99 | % | 70-135 | 12.22.19 05.10 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-24 (1')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-036 | Date Collected: | 12.18.19 13.57 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.42 | U | 1 |
| Toluene | 108-88-3 | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.42 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.42 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00396 | 0.00396 | mg/kg | 12.30.19 20.42 | U | 1 |
| o-Xylene | 95-47-6 | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.42 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.42 | U | 1 |
| Total BTEX | | <0.00198 | 0.00198 | mg/kg | 12.30.19 20.42 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 101 | % | 70-130 | 12.30.19 20.42 | |
| 1,4-Difluorobenzene | 540-36-3 | 117 | % | 70-130 | 12.30.19 20.42 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-25 (0.5')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-037 Date Collected: 12.18.19 13.59

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.23.19 12.30 Basis: Wet Weight

Seq Number: 3111563

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **6.77** | 5.04 | mg/kg | 12.23.19 16.48 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <49.8 | 49.8 | mg/kg | 12.22.19 05.31 | U | 1 |
| Diesel Range Organics | C10C28DRO | <49.8 | 49.8 | mg/kg | 12.22.19 05.31 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <49.8 | 49.8 | mg/kg | 12.22.19 05.31 | U | 1 |
| Total TPH | PHC635 | <49.8 | 49.8 | mg/kg | 12.22.19 05.31 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 97 | % | 70-135 | 12.22.19 05.31 | |
| o-Terphenyl | 84-15-1 | 100 | % | 70-135 | 12.22.19 05.31 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-25 (0.5')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-037 | Date Collected: | 12.18.19 13.59 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00202 | 0.00202 | mg/kg | 12.30.19 21.03 | U | 1 |
| Toluene | 108-88-3 | <0.00202 | 0.00202 | mg/kg | 12.30.19 21.03 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00202 | 0.00202 | mg/kg | 12.30.19 21.03 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00403 | 0.00403 | mg/kg | 12.30.19 21.03 | U | 1 |
| o-Xylene | 95-47-6 | <0.00202 | 0.00202 | mg/kg | 12.30.19 21.03 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00202 | 0.00202 | mg/kg | 12.30.19 21.03 | U | 1 |
| Total BTEX | | <0.00202 | 0.00202 | mg/kg | 12.30.19 21.03 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.30.19 21.03 | |
| 4-Bromofluorobenzene | 460-00-4 | 100 | % | 70-130 | 12.30.19 21.03 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

Sample Id: **S-25 (1')** Matrix: Soil Date Received:12.20.19 11.10

Lab Sample Id: 647206-038 Date Collected: 12.18.19 14.03

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 12.23.19 12.30 Basis: Wet Weight

Seq Number: 3111563

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Chloride | 16887-00-6 | <5.05 | 5.05 | mg/kg | 12.23.19 16.54 | U | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 12.21.19 09.00 Basis: Wet Weight

Seq Number: 3111415

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | PHC610 | <50.0 | 50.0 | mg/kg | 12.22.19 05.52 | U | 1 |
| Diesel Range Organics | C10C28DRO | <50.0 | 50.0 | mg/kg | 12.22.19 05.52 | U | 1 |
| Oil Range Hydrocarbons | PHCG2835 | <50.0 | 50.0 | mg/kg | 12.22.19 05.52 | U | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 12.22.19 05.52 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 98 | % | 70-135 | 12.22.19 05.52 | |
| o-Terphenyl | 84-15-1 | 102 | % | 70-135 | 12.22.19 05.52 | |

# Certificate of Analytical Results 647206

## Larson and Associates, Inc., Midland, TX

Chevron Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-25 (1')** | Matrix: | Soil | Date Received: | 12.20.19 11.10 |
| Lab Sample Id: | 647206-038 | Date Collected: | 12.18.19 14.03 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 12.27.19 08.45 | Basis: | Wet Weight |
| Seq Number: | 3112074 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 12.30.19 21.23 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 12.30.19 21.23 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 12.30.19 21.23 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00400 | 0.00400 | mg/kg | 12.30.19 21.23 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 12.30.19 21.23 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 12.30.19 21.23 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 12.30.19 21.23 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 98 | % | 70-130 | 12.30.19 21.23 | |
| 1,4-Difluorobenzene | 540-36-3 | 115 | % | 70-130 | 12.30.19 21.23 | |

# Flagging Criteria

**X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

**B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

**D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

**E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

**F** RPD exceeded lab control limits.

**J** The target analyte was positively identified below the quantitation limit and above the detection limit.

**U** Analyte was not detected.

**L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

**H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

**K** Sample analyzed outside of recommended hold time.

**JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

**PQL** Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

# QC Summary 647206



## Larson and Associates, Inc.

Chevron Culebra Bluff

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111364 — Matrix: Solid — Date Prep: 12.20.19
MB Sample Id: 7693011-1-BLK — LCS Sample Id: 7693011-1-BKS — LCSD Sample Id: 7693011-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 245 | 98 | 243 | 97 | 90-110 | 1 | 20 | mg/kg | 12.20.19 19:29 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111390 — Matrix: Solid — Date Prep: 12.20.19
MB Sample Id: 7693017-1-BLK — LCS Sample Id: 7693017-1-BKS — LCSD Sample Id: 7693017-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <0.858 | 250 | 261 | 104 | 260 | 104 | 90-110 | 0 | 20 | mg/kg | 12.22.19 16:00 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111388 — Matrix: Solid — Date Prep: 12.22.19
MB Sample Id: 7693046-1-BLK — LCS Sample Id: 7693046-1-BKS — LCSD Sample Id: 7693046-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <0.858 | 250 | 261 | 104 | 262 | 105 | 90-110 | 0 | 20 | mg/kg | 12.22.19 19:36 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111563 — Matrix: Solid — Date Prep: 12.23.19
MB Sample Id: 7693114-1-BLK — LCS Sample Id: 7693114-1-BKS — LCSD Sample Id: 7693114-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <0.858 | 250 | 264 | 106 | 274 | 110 | 90-110 | 4 | 20 | mg/kg | 12.23.19 16:02 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111364 — Matrix: Soil — Date Prep: 12.20.19
Parent Sample Id: 647131-007 — MS Sample Id: 647131-007 S — MSD Sample Id: 647131-007 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 55.6 | 250 | 308 | 101 | 311 | 102 | 90-110 | 1 | 20 | mg/kg | 12.20.19 21:33 | |

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Final 1.000

# QC Summary 647206



## Larson and Associates, Inc.

Chevron Culebra Bluff

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111364 — Matrix: Soil — Date Prep: 12.20.19
Parent Sample Id: 647182-008 — MS Sample Id: 647182-008 S — MSD Sample Id: 647182-008 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 6.39 | 250 | 259 | 101 | 258 | 101 | 90-110 | 0 | 20 | mg/kg | 12.20.19 19:51 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111390 — Matrix: Soil — Date Prep: 12.20.19
Parent Sample Id: 647206-008 — MS Sample Id: 647206-008 S — MSD Sample Id: 647206-008 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1080 | 252 | 1320 | 95 | 1300 | 87 | 90-110 | 2 | 20 | mg/kg | 12.22.19 16:19 | X |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111390 — Matrix: Soil — Date Prep: 12.20.19
Parent Sample Id: 647206-017 — MS Sample Id: 647206-017 S — MSD Sample Id: 647206-017 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1030 | 252 | 1240 | 83 | 1240 | 83 | 90-110 | 0 | 20 | mg/kg | 12.22.19 17:51 | X |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111388 — Matrix: Soil — Date Prep: 12.22.19
Parent Sample Id: 647206-029 — MS Sample Id: 647206-029 S — MSD Sample Id: 647206-029 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 321 | 248 | 589 | 108 | 579 | 104 | 90-110 | 2 | 20 | mg/kg | 12.22.19 19:55 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111388 — Matrix: Soil — Date Prep: 12.22.19
Parent Sample Id: 647206-032 — MS Sample Id: 647206-032 S — MSD Sample Id: 647206-032 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 34.9 | 249 | 316 | 113 | 309 | 110 | 90-110 | 2 | 20 | mg/kg | 12.22.19 21:27 | X |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 647206



## Larson and Associates, Inc.

Chevron Culebra Bluff

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111563 — Matrix: Soil — Date Prep: 12.23.19
Parent Sample Id: 646743-002 — MS Sample Id: 646743-002 S — MSD Sample Id: 646743-002 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 39.8 | 248 | 302 | 106 | 310 | 109 | 90-110 | 3 | 20 | mg/kg | 12.23.19 17:53 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3111563 — Matrix: Soil — Date Prep: 12.23.19
Parent Sample Id: 647361-005 — MS Sample Id: 647361-005 S — MSD Sample Id: 647361-005 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 468 | 250 | 671 | 81 | 674 | 82 | 90-110 | 0 | 20 | mg/kg | 12.23.19 16:21 | X |

**Analytical Method:** TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3111414 — Matrix: Solid — Date Prep: 12.20.19
MB Sample Id: 7693059-1-BLK — LCS Sample Id: 7693059-1-BKS — LCSD Sample Id: 7693059-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | <15.0 | 1000 | 962 | 96 | 949 | 95 | 70-135 | 1 | 20 | mg/kg | 12.21.19 12:42 | |
| Diesel Range Organics | <15.0 | 1000 | 972 | 97 | 946 | 95 | 70-135 | 3 | 20 | mg/kg | 12.21.19 12:42 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 1-Chlorooctane | 103 | | 118 | | 105 | | 70-135 | % | 12.21.19 12:42 |
| o-Terphenyl | 108 | | 122 | | 107 | | 70-135 | % | 12.21.19 12:42 |

**Analytical Method:** TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3111415 — Matrix: Solid — Date Prep: 12.21.19
MB Sample Id: 7693060-1-BLK — LCS Sample Id: 7693060-1-BKS — LCSD Sample Id: 7693060-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | <50.0 | 1000 | 977 | 98 | 950 | 95 | 70-135 | 3 | 20 | mg/kg | 12.21.19 22:10 | |
| Diesel Range Organics | <15.0 | 1000 | 1000 | 100 | 963 | 96 | 70-135 | 4 | 20 | mg/kg | 12.21.19 22:10 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 1-Chlorooctane | 98 | | 107 | | 114 | | 70-135 | % | 12.21.19 22:10 |
| o-Terphenyl | 103 | | 109 | | 120 | | 70-135 | % | 12.21.19 22:10 |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 647206



## Larson and Associates, Inc.

Chevron Culebra Bluff

**Analytical Method:** TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3111414 — Matrix: Solid — Date Prep: 12.20.19
MB Sample Id: 7693059-1-BLK

| Parameter | MB Result | Units | Analysis Date | Flag |
|---|---|---|---|---|
| Oil Range Hydrocarbons | <50.0 | mg/kg | 12.21.19 12:21 | |

**Analytical Method:** TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3111415 — Matrix: Solid — Date Prep: 12.21.19
MB Sample Id: 7693060-1-BLK

| Parameter | MB Result | Units | Analysis Date | Flag |
|---|---|---|---|---|
| Oil Range Hydrocarbons | <50.0 | mg/kg | 12.21.19 21:49 | |

**Analytical Method:** TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3111414 — Matrix: Soil — Date Prep: 12.20.19
Parent Sample Id: 647206-001 — MS Sample Id: 647206-001 S — MSD Sample Id: 647206-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | <15.0 | 999 | 961 | 96 | 968 | 97 | 70-135 | 1 | 20 | mg/kg | 12.22.19 07:54 | |
| Diesel Range Organics | 19.2 | 999 | 978 | 96 | 988 | 97 | 70-135 | 1 | 20 | mg/kg | 12.22.19 07:54 | |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 1-Chlorooctane | 117 | | 107 | | 70-135 | % | 12.22.19 07:54 |
| o-Terphenyl | 122 | | 107 | | 70-135 | % | 12.22.19 07:54 |

**Analytical Method:** TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3111415 — Matrix: Soil — Date Prep: 12.21.19
Parent Sample Id: 647206-021 — MS Sample Id: 647206-021 S — MSD Sample Id: 647206-021 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons | <15.0 | 997 | 915 | 92 | 948 | 95 | 70-135 | 4 | 20 | mg/kg | 12.22.19 08:36 | |
| Diesel Range Organics | 15.4 | 997 | 929 | 92 | 974 | 96 | 70-135 | 5 | 20 | mg/kg | 12.22.19 08:36 | |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 1-Chlorooctane | 101 | | 116 | | 70-135 | % | 12.22.19 08:36 |
| o-Terphenyl | 101 | | 121 | | 70-135 | % | 12.22.19 08:36 |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 647206



## Larson and Associates, Inc.

Chevron Culebra Bluff

**Analytical Method:** BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3111938 — Matrix: Solid — Date Prep: 12.26.19
MB Sample Id: 7693365-1-BLK — LCS Sample Id: 7693365-1-BKS — LCSD Sample Id: 7693365-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | 0.100 | 0.120 | 120 | 0.103 | 103 | 70-130 | 15 | 35 | mg/kg | 12.27.19 05:49 | |
| Toluene | <0.00200 | 0.100 | 0.107 | 107 | 0.0919 | 92 | 70-130 | 15 | 35 | mg/kg | 12.27.19 05:49 | |
| Ethylbenzene | <0.00200 | 0.100 | 0.106 | 106 | 0.0913 | 91 | 70-130 | 15 | 35 | mg/kg | 12.27.19 05:49 | |
| m,p-Xylenes | <0.00400 | 0.200 | 0.215 | 108 | 0.184 | 92 | 70-130 | 16 | 35 | mg/kg | 12.27.19 05:49 | |
| o-Xylene | <0.00200 | 0.100 | 0.107 | 107 | 0.0923 | 92 | 70-130 | 15 | 35 | mg/kg | 12.27.19 05:49 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 112 | | 112 | | 112 | | 70-130 | % | 12.27.19 05:49 |
| 4-Bromofluorobenzene | 90 | | 95 | | 93 | | 70-130 | % | 12.27.19 05:49 |

**Analytical Method:** BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3112074 — Matrix: Solid — Date Prep: 12.27.19
MB Sample Id: 7693363-1-BLK — LCS Sample Id: 7693363-1-BKS — LCSD Sample Id: 7693363-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | 0.100 | 0.105 | 105 | 0.101 | 101 | 70-130 | 4 | 35 | mg/kg | 12.30.19 11:14 | |
| Toluene | <0.00200 | 0.100 | 0.0957 | 96 | 0.0919 | 92 | 70-130 | 4 | 35 | mg/kg | 12.30.19 11:14 | |
| Ethylbenzene | <0.00200 | 0.100 | 0.0961 | 96 | 0.0920 | 92 | 70-130 | 4 | 35 | mg/kg | 12.30.19 11:14 | |
| m,p-Xylenes | <0.00400 | 0.200 | 0.193 | 97 | 0.186 | 93 | 70-130 | 4 | 35 | mg/kg | 12.30.19 11:14 | |
| o-Xylene | <0.00200 | 0.100 | 0.0962 | 96 | 0.0942 | 94 | 70-130 | 2 | 35 | mg/kg | 12.30.19 11:14 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 106 | | 108 | | 112 | | 70-130 | % | 12.30.19 11:14 |
| 4-Bromofluorobenzene | 86 | | 93 | | 98 | | 70-130 | % | 12.30.19 11:14 |

**Analytical Method:** BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3111947 — Matrix: Solid — Date Prep: 12.29.19
MB Sample Id: 7693451-1-BLK — LCS Sample Id: 7693451-1-BKS — LCSD Sample Id: 7693451-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | 0.100 | 0.108 | 108 | 0.105 | 105 | 70-130 | 3 | 35 | mg/kg | 12.29.19 16:27 | |
| Toluene | <0.00200 | 0.100 | 0.0988 | 99 | 0.0979 | 98 | 70-130 | 1 | 35 | mg/kg | 12.29.19 16:27 | |
| Ethylbenzene | <0.00200 | 0.100 | 0.0998 | 100 | 0.101 | 101 | 70-130 | 1 | 35 | mg/kg | 12.29.19 16:27 | |
| m,p-Xylenes | <0.00400 | 0.200 | 0.203 | 102 | 0.206 | 103 | 70-130 | 1 | 35 | mg/kg | 12.29.19 16:27 | |
| o-Xylene | <0.00200 | 0.100 | 0.100 | 100 | 0.102 | 102 | 70-130 | 2 | 35 | mg/kg | 12.29.19 16:27 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 111 | | 111 | | 110 | | 70-130 | % | 12.29.19 16:27 |
| 4-Bromofluorobenzene | 91 | | 93 | | 100 | | 70-130 | % | 12.29.19 16:27 |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 647206



## Larson and Associates, Inc.

Chevron Culebra Bluff

**Analytical Method:** BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3111938 — Matrix: Soil — Date Prep: 12.26.19
Parent Sample Id: 647206-001 — MS Sample Id: 647206-001 S — MSD Sample Id: 647206-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | 0.0998 | 0.0793 | 79 | 0.0802 | 80 | 70-130 | 1 | 35 | mg/kg | 12.27.19 06:30 | |
| Toluene | <0.00200 | 0.0998 | 0.0639 | 64 | 0.0651 | 65 | 70-130 | 2 | 35 | mg/kg | 12.27.19 06:30 | X |
| Ethylbenzene | <0.00200 | 0.0998 | 0.0653 | 65 | 0.0679 | 68 | 70-130 | 4 | 35 | mg/kg | 12.27.19 06:30 | X |
| m,p-Xylenes | <0.00399 | 0.200 | 0.129 | 65 | 0.134 | 67 | 70-130 | 4 | 35 | mg/kg | 12.27.19 06:30 | X |
| o-Xylene | <0.00200 | 0.0998 | 0.0686 | 69 | 0.0728 | 73 | 70-130 | 6 | 35 | mg/kg | 12.27.19 06:30 | X |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 117 | | 115 | | 70-130 | % | 12.27.19 06:30 |
| 4-Bromofluorobenzene | 101 | | 103 | | 70-130 | % | 12.27.19 06:30 |

**Analytical Method:** BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3112074 — Matrix: Soil — Date Prep: 12.27.19
Parent Sample Id: 647206-021 — MS Sample Id: 647206-021 S — MSD Sample Id: 647206-021 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | 0.100 | 0.118 | 118 | 0.110 | 110 | 70-130 | 7 | 35 | mg/kg | 12.30.19 11:55 | |
| Toluene | <0.00200 | 0.100 | 0.102 | 102 | 0.101 | 101 | 70-130 | 1 | 35 | mg/kg | 12.30.19 11:55 | |
| Ethylbenzene | <0.00200 | 0.100 | 0.103 | 103 | 0.101 | 101 | 70-130 | 2 | 35 | mg/kg | 12.30.19 11:55 | |
| m,p-Xylenes | <0.00400 | 0.200 | 0.224 | 112 | 0.205 | 103 | 70-130 | 9 | 35 | mg/kg | 12.30.19 11:55 | |
| o-Xylene | <0.00200 | 0.100 | 0.117 | 117 | 0.105 | 105 | 70-130 | 11 | 35 | mg/kg | 12.30.19 11:55 | |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 114 | | 113 | | 70-130 | % | 12.30.19 11:55 |
| 4-Bromofluorobenzene | 112 | | 105 | | 70-130 | % | 12.30.19 11:55 |

**Analytical Method:** BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3111947 — Matrix: Soil — Date Prep: 12.29.19
Parent Sample Id: 647357-001 — MS Sample Id: 647357-001 S — MSD Sample Id: 647357-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | 0.100 | 0.0886 | 89 | 0.0857 | 86 | 70-130 | 3 | 35 | mg/kg | 12.29.19 17:08 | |
| Toluene | <0.00200 | 0.100 | 0.0834 | 83 | 0.0799 | 80 | 70-130 | 4 | 35 | mg/kg | 12.29.19 17:08 | |
| Ethylbenzene | <0.00200 | 0.100 | 0.0849 | 85 | 0.0807 | 81 | 70-130 | 5 | 35 | mg/kg | 12.29.19 17:08 | |
| m,p-Xylenes | <0.00401 | 0.200 | 0.175 | 88 | 0.165 | 83 | 70-130 | 6 | 35 | mg/kg | 12.29.19 17:08 | |
| o-Xylene | <0.00200 | 0.100 | 0.0877 | 88 | 0.0823 | 82 | 70-130 | 6 | 35 | mg/kg | 12.29.19 17:08 | |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 111 | | 112 | | 70-130 | % | 12.29.19 17:08 |
| 4-Bromofluorobenzene | 104 | | 103 | | 70-130 | % | 12.29.19 17:08 |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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647206 Nº 0857

# CHAIN-OF-CUSTODY

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

DATE: 12-20-2019 PAGE 1 OF 3

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Chevron- Culebra Bluff

LAI PROJECT #: 194180-07 COLLECTOR: RN/EC/DS

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES: BTEX X MTBE ☐ | TPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 X | DIESEL - MOD 8015 X | OIL - MOD 8015 X | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TBLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDES X ANIONS ☐ ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-23 (0.5') | | 12-17-19 | 10:41 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | X | | |
| S-23 (1') | | | 10:42 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-17 (1.5') | | | 13:21 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-10 (5') | | | 13:48 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-16 (1') | | | 14:30 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-15 (1') | | | 15:04 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-14 (5') | | | 15:15 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-13 (5') | | | 15:43 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-12 (5') | | | 16:09 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-12 (7') | | | 16:10 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-11 (5') | | | 16:42 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-11 (7') | | | 16:45 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-9 (5') | | | 16:58 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7') | | | 16:59 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

TOTAL 14

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 12-20-19/11:10 RECEIVED BY: (Signature) J Kramer

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 ☒ 4day RUSH

**LABORATORY USE ONLY:**
RECEIVING TEMP: 6.1 THERM#: R8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/8/2024 11:20:33 AM
Page 96 of 99
Final 1.000
Released to Imaging: 6/25/2024 3:21:31 PM

Page 210 of 1002

647206 Nº 0858

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 12-20-2019 PAGE 2 OF 3

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Chevron Cuthbert Bluff

LAI PROJECT #: 19-0180-07 COLLECTOR: RN/EC/DS

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR 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 ☐ | TBLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐ | m300 | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-8 (5') | | 12-18-19 | 9:08 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | | |
| S-7 (5') | | | 9:19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-6 (5') | | | 9:36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-6 (7') | | | 9:42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-5 (5') | | | 9:57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-5 (7') | | | 10:02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-4 (5') | | | 10:17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-4 (7') | | | 10:26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-3 (5') | | | 10:55 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-3 (7') | | | 11:00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-2 (5') | | | 11:13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-2 (7') | | | 11:19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-1 (5') | | | 11:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-1 (7') | | | 11:34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-21 (5') | | | 12:04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY:(Signature) Rachel Ames DATE/TIME 12-20-19/11:10 RECEIVED BY: (Signature) Jhamer

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 ☒ 4 day Rush

**LABORATORY USE ONLY:**
RECEIVING TEMP: -6.1 THERM#: R8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:21:21 PM
Final 1.000
Page 97 of 99

Page 211 of 1002

647206 Nº 0859

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 12-20-2019 PAGE 3 OF 3

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Chevron-Culebra Bluff

LAI PROJECT #: 19-01BO-07 COLLECTOR: RN/EC/DS

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR 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 ☐ | TBLP - METALS (RCRA) ☐ | TCLP VOC ☐ | TCLP - PEST ☐ | HERB ☐ | Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ | OTHER LIST ☐ | LEAD - TOTAL ☐ | D.W. 200.8 ☐ | TCLP ☐ | RCI ☐ | TOX ☐ | FLASHPOINT ☐ | TDS ☐ | TSS ☐ | % MOISTURE ☐ | pH ☐ | CYANIDE ☐ | HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ | PECHLORATE ☐ | CHLORIDE ☒ | ANIONS ☐ | ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-21 (10') | | 12-18-19 | 12:07 | S | 1 | | | | X | | X | | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| S-18 (2') | | | 12:37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-19 (3') | | | 12:52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-20 (3') | | | 13:45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-22 (3') | | | 13:53 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-24 (0.5') | | | 13:56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-24 (1') | | | 13:57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-25 (0.5') | | | 13:59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S25 (1') | | | 14:03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 12-20-19/11:10 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 ☒ 4 day

**LABORATORY USE ONLY:**
RECEIVING TEMP: 6.1 THERM#: R8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Final 1.000
Page 98 of 99
Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:21:21 PM

# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In

**Client:** Larson and Associates, Inc.

**Date/ Time Received:** 12/20/2019 11:10:00 AM

**Work Order #:** 647206

**Acceptable Temperature Range: 0 - 6 degC**
**Air and Metal samples Acceptable Range: Ambient**

**Temperature Measuring device used : R8**

| Sample Receipt Checklist | Comments |
|---|---|
| #1 *Temperature of cooler(s)? | -6.1 |
| #2 *Shipping container in good condition? | **Yes** |
| #3 *Samples received on ice? | **Yes** |
| #4 *Custody Seals intact on shipping container/ cooler? | **N/A** |
| #5 Custody Seals intact on sample bottles? | **N/A** |
| #6*Custody Seals Signed and dated? | **N/A** |
| #7 *Chain of Custody present? | **Yes** |
| #8 Any missing/extra samples? | **No** |
| #9 Chain of Custody signed when relinquished/ received? | **Yes** |
| #10 Chain of Custody agrees with sample labels/matrix? | **Yes** |
| #11 Container label(s) legible and intact? | **Yes** |
| #12 Samples in proper container/ bottle? | **Yes** |
| #13 Samples properly preserved? | **Yes** |
| #14 Sample container(s) intact? | **Yes** |
| #15 Sufficient sample amount for indicated test(s)? | **Yes** |
| #16 All samples received within hold time? | **Yes** |
| #17 Subcontract of sample(s)? | **N/A** |
| #18 Water VOC samples have zero headspace? | **N/A** |

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

**Checklist completed by:** Jessica Kramer Date: 12/20/2019
Jessica Kramer

**Checklist reviewed by:** Holly Taylor Date: 12/27/2019
Holly Taylor

# Certificate of Analysis Summary 650826

## Larson and Associates, Inc., Midland, TX

## Project Name: Culebra Bluff-Chevron

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu Jan-30-20 10:01 am
**Report Date:** 02-MAR-20
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 650826-001 | | 650826-005 | | 650826-009 | | 650826-013 | | 650826-014 | | 650826-015 | |
| | ***Field Id:*** | S-13 (6') | | S-10 (6') | | S-14 (6') | | S-12 (6') | | S-12 (15') | | S-12 (20') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Jan-28-20 10:15 | | Jan-28-20 10:26 | | Jan-28-20 10:37 | | Jan-28-20 10:48 | | Jan-28-20 10:49 | | Jan-28-20 10:50 | |
| **Chloride by EPA 300** | ***Extracted:*** | Jan-31-20 12:30 | | Jan-31-20 12:30 | | Jan-31-20 12:30 | | Jan-31-20 12:30 | | Feb-03-20 14:35 | | Feb-11-20 08:20 | |
| | ***Analyzed:*** | Jan-31-20 14:14 | | Jan-31-20 14:54 | | Jan-31-20 15:14 | | Jan-31-20 15:21 | | Feb-03-20 21:12 | | Feb-11-20 09:45 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 382 | 5.00 | 325 | 5.03 | 589 | 4.98 | 670 | 5.05 | 865 | 5.05 | 738 | 4.96 |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Final 1.001

# Certificate of Analysis Summary 650826

## Larson and Associates, Inc., Midland, TX

## Project Name: Culebra Bluff-Chevron

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu Jan-30-20 10:01 am
**Report Date:** 02-MAR-20
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 650826-016 | | 650826-017 | | 650826-018 | | 650826-019 | | 650826-020 | | 650826-021 | |
| | ***Field Id:*** | S-8 (6') | | S-8 (10') | | S-8 (15') | | S-8 (20') | | S-11 (10') | | S-11 (15') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Jan-28-20 10:59 | | Jan-28-20 11:01 | | Jan-28-20 11:03 | | Jan-28-20 11:05 | | Jan-28-20 11:15 | | Jan-28-20 11:17 | |
| **Chloride by EPA 300** | ***Extracted:*** | Jan-31-20 12:30 | | Feb-03-20 14:35 | | Feb-11-20 08:20 | | Feb-13-20 16:30 | | Jan-31-20 12:30 | | Feb-03-20 14:35 | |
| | ***Analyzed:*** | Jan-31-20 15:28 | | Feb-03-20 21:39 | | Feb-11-20 10:18 | | Feb-13-20 21:11 | | Jan-31-20 15:48 | | Feb-03-20 21:59 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 1130 | 24.8 | 1700 | 25.0 | 1540 | 25.2 | 1440 | 25.0 | 928 | 5.03 | 1110 | 5.00 |

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Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

# Certificate of Analysis Summary 650826

## Larson and Associates, Inc., Midland, TX

## Project Name: Culebra Bluff-Chevron

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu Jan-30-20 10:01 am
**Report Date:** 02-MAR-20
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 650826-022 | | 650826-023 | | 650826-024 | | 650826-025 | | 650826-026 | | 650826-027 | |
| | ***Field Id:*** | S-11 (20') | | S-1 (10') | | S-1 (15') | | S-1 (20') | | S-4 (10') | | S-4 (15') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Jan-28-20 11:20 | | Jan-28-20 11:23 | | Jan-28-20 11:25 | | Jan-28-20 11:28 | | Jan-28-20 11:35 | | Jan-28-20 11:38 | |
| **Chloride by EPA 300** | ***Extracted:*** | Feb-11-20 11:45 | | Jan-31-20 12:30 | | Feb-03-20 14:35 | | Feb-11-20 11:45 | | Jan-31-20 12:30 | | Feb-03-20 14:35 | |
| | ***Analyzed:*** | Feb-12-20 14:13 | | Jan-31-20 15:34 | | Feb-03-20 22:05 | | Feb-12-20 14:18 | | Jan-31-20 15:41 | | Feb-03-20 22:12 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 1060 | 4.99 | 1470 | 4.99 | 999 | 5.00 | 1070 | 5.01 | 1430 | 4.95 | 1360 | 4.98 |

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

# Certificate of Analysis Summary 650826

## Larson and Associates, Inc., Midland, TX

## Project Name: Culebra Bluff-Chevron

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu Jan-30-20 10:01 am
**Report Date:** 02-MAR-20
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 650826-028 | | 650826-029 | | 650826-030 | | 650826-031 | | 650826-032 | | 650826-033 | |
| | ***Field Id:*** | S-4 (20') | | S-2(10') | | S-2 (15') | | S-2 (20') | | S-3 (10') | | S-3 (15') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Jan-28-20 11:40 | | Jan-28-20 11:45 | | Jan-28-20 11:47 | | Jan-28-20 11:49 | | Jan-28-20 11:53 | | Jan-28-20 11:54 | |
| **Chloride by EPA 300** | ***Extracted:*** | Feb-11-20 11:45 | | Jan-31-20 12:30 | | Feb-03-20 14:35 | | Feb-11-20 11:45 | | Jan-31-20 12:30 | | Feb-03-20 14:35 | |
| | ***Analyzed:*** | Feb-12-20 14:24 | | Jan-31-20 16:08 | | Feb-03-20 22:19 | | Feb-12-20 14:29 | | Jan-31-20 16:14 | | Feb-03-20 22:25 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 1050 | 5.00 | 751 | 4.99 | 1150 | 4.99 | 1060 | 5.03 | 879 | 4.97 | 1240 | 5.03 |

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Holly Taylor
Project Manager

# Certificate of Analysis Summary 650826

## Larson and Associates, Inc., Midland, TX

## Project Name: Culebra Bluff-Chevron

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu Jan-30-20 10:01 am
**Report Date:** 02-MAR-20
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 650826-034 | | 650826-035 | | 650826-036 | | 650826-037 | | 650826-038 | | 650826-039 | |
| | ***Field Id:*** | S-3 (20') | | S-7 (6') | | S-7 (10') | | S-7 (15') | | S-7 (20') | | S-5 10') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Jan-28-20 11:55 | | Jan-28-20 12:07 | | Jan-28-20 12:08 | | Jan-28-20 12:09 | | Jan-28-20 12:10 | | Jan-28-20 12:17 | |
| **Chloride by EPA 300** | ***Extracted:*** | Feb-11-20 11:45 | | Jan-31-20 12:30 | | Feb-03-20 14:35 | | Feb-11-20 11:45 | | Feb-13-20 16:30 | | Jan-31-20 12:30 | |
| | ***Analyzed:*** | Feb-12-20 14:34 | | Jan-31-20 16:34 | | Feb-03-20 22:32 | | Feb-12-20 14:40 | | Feb-13-20 21:41 | | Jan-31-20 16:41 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 1240 | 4.98 | 1930 | 24.8 | 1020 | 5.01 | 1030 | 4.98 | 847 | 5.05 | 1110 | 5.02 |

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

# Certificate of Analysis Summary 650826

## Larson and Associates, Inc., Midland, TX

## Project Name: Culebra Bluff-Chevron

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu Jan-30-20 10:01 am
**Report Date:** 02-MAR-20
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 650826-040 | | 650826-041 | | 650826-042 | | 650826-043 | | 650826-044 | | 650826-045 | |
| | ***Field Id:*** | S-5 (15') | | S-5 (20') | | S-6 (10') | | S-6(15') | | S-6 (20') | | S-21 (11') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Jan-28-20 12:19 | | Jan-28-20 12:21 | | Jan-28-20 12:30 | | Jan-28-20 12:32 | | Jan-28-20 12:35 | | Jan-28-20 12:45 | |
| **Chloride by EPA 300** | ***Extracted:*** | Feb-03-20 14:35 | | Feb-11-20 12:10 | | Jan-31-20 12:30 | | Feb-03-20 16:10 | | Feb-13-20 16:30 | | Jan-31-20 12:30 | |
| | ***Analyzed:*** | Feb-03-20 22:39 | | Feb-12-20 17:56 | | Jan-31-20 16:48 | | Feb-03-20 23:19 | | Feb-13-20 21:48 | | Jan-31-20 16:55 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 845 | 4.96 | 711 | 5.04 | 693 | 5.05 | 521 | 5.03 | 921 | 5.03 | 900 | 4.98 |

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Holly Taylor
Project Manager

# Certificate of Analysis Summary 650826

## Larson and Associates, Inc., Midland, TX

## Project Name: Culebra Bluff-Chevron

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu Jan-30-20 10:01 am
**Report Date:** 02-MAR-20
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 650826-046 | | 650826-047 | | 650826-048 | | 650826-049 | | 650826-050 | | 650826-051 | |
| | ***Field Id:*** | S-21 (15') | | S-21 (20') | | S-15 (2') | | S-15 (5') | | S-15 (10') | | S-15 (15') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Jan-28-20 12:47 | | Jan-28-20 12:49 | | Jan-28-20 13:50 | | Jan-28-20 13:51 | | Jan-28-20 13:52 | | Jan-28-20 13:53 | |
| **Chloride by EPA 300** | ***Extracted:*** | Feb-03-20 16:10 | | Feb-11-20 12:10 | | Jan-31-20 12:30 | | Feb-11-20 12:10 | | Feb-13-20 16:30 | | Feb-17-20 13:05 | |
| | ***Analyzed:*** | Feb-03-20 23:39 | | Feb-12-20 18:12 | | Jan-31-20 17:01 | | Feb-12-20 19:10 | | Feb-13-20 22:10 | | Feb-17-20 15:02 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 805 | 4.98 | 1230 | 5.05 | 751 | 5.00 | 1140 | 5.00 | 823 | 4.97 | 721 | 4.99 |
| **TPH by SW8015 Mod** | ***Extracted:*** | | | | | Feb-21-20 17:00 | | | | | | | |
| | ***Analyzed:*** | | | | | Feb-21-20 20:19 | | | | | | | |
| | ***Units/RL:*** | | | | | mg/kg | RL | | | | | | |
| Gasoline Range Hydrocarbons (GRO) | | | | | | <49.9 | 49.9 | | | | | | |
| Diesel Range Organics (DRO) | | | | | | 171 K | 49.9 | | | | | | |
| Motor Oil Range Hydrocarbons (MRO) | | | | | | <49.9 | 49.9 | | | | | | |
| Total TPH | | | | | | 171 K | 49.9 | | | | | | |

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

# Certificate of Analysis Summary 650826

## Larson and Associates, Inc., Midland, TX

## Project Name: Culebra Bluff-Chevron

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu Jan-30-20 10:01 am
**Report Date:** 02-MAR-20
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 650826-052 | | 650826-053 | | 650826-054 | | 650826-055 | | 650826-058 | | 650826-063 | |
| | ***Field Id:*** | S-15 (20') | | S-16 (2') | | S-16 (5') | | S-16 (10') | | S-17 (2') | | S-18 (5') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Jan-28-20 13:54 | | Jan-29-20 09:16 | | Jan-29-20 09:17 | | Jan-29-20 09:22 | | Jan-29-20 09:29 | | Jan-29-20 09:42 | |
| **Chloride by EPA 300** | ***Extracted:*** | Feb-18-20 17:30 | | Jan-31-20 12:30 | | Feb-03-20 16:10 | | Feb-17-20 13:05 | | Jan-31-20 12:30 | | Jan-31-20 13:20 | |
| | ***Analyzed:*** | Feb-18-20 21:42 | | Jan-31-20 17:08 | | Feb-03-20 23:45 | | Feb-17-20 15:17 | | Jan-31-20 17:15 | | Jan-31-20 16:41 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 722 | 5.01 | 966 | 4.97 | 301 | 5.00 | 506 | 5.02 | 223 | 4.96 | 63.8 | 4.96 |
| **TPH by SW8015 Mod** | ***Extracted:*** | | | | | | | | | Feb-21-20 17:00 | | | |
| | ***Analyzed:*** | | | | | | | | | Feb-21-20 20:38 | | | |
| | ***Units/RL:*** | | | | | | | | | mg/kg | RL | | |
| Gasoline Range Hydrocarbons (GRO) | | | | | | | | | | <50.0 | 50.0 | | |
| Diesel Range Organics (DRO) | | | | | | | | | | <50.0 | 50.0 | | |
| Motor Oil Range Hydrocarbons (MRO) | | | | | | | | | | <50.0 | 50.0 | | |
| Total TPH | | | | | | | | | | <50.0 | 50.0 | | |

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Holly Taylor
Project Manager

# Certificate of Analysis Summary 650826

## Larson and Associates, Inc., Midland, TX

## Project Name: Culebra Bluff-Chevron

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu Jan-30-20 10:01 am
**Report Date:** 02-MAR-20
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 650826-067 | | 650826-071 | | 650826-072 | | 650826-073 | | 650826-077 | | 650826-078 | |
| | ***Field Id:*** | S-22 (5') | | S-26 (0-0.5') | | S-26 (2') | | S-26 (5') | | S-27 (0-0.5') | | S-27 (0.5-1') | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Jan-29-20 09:53 | | Jan-29-20 10:06 | | Jan-29-20 10:07 | | Jan-29-20 10:08 | | Jan-29-20 10:31 | | Jan-29-20 10:33 | |
| **BTEX by EPA 8021B** | ***Extracted:*** | | | Mar-01-20 10:00 | | Mar-01-20 08:00 | | Mar-01-20 08:00 | | Mar-01-20 08:00 | | Mar-01-20 08:00 | |
| | ***Analyzed:*** | | | Mar-01-20 20:50 | | Mar-01-20 18:27 | | Mar-01-20 18:48 | | Mar-01-20 19:09 | | Mar-01-20 19:29 | |
| | ***Units/RL:*** | | | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Benzene | | | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Toluene | | | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Ethylbenzene | | | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| m,p-Xylenes | | | | <0.00403 | 0.00403 | <0.00398 | 0.00398 | <0.00399 | 0.00399 | <0.00396 | 0.00396 | <0.00400 | 0.00400 |
| o-Xylene | | | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Total Xylenes | | | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| Total BTEX | | | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | <0.00200 | 0.00200 | <0.00198 | 0.00198 | <0.00200 | 0.00200 |
| **Chloride by EPA 300** | ***Extracted:*** | Jan-31-20 13:20 | | Jan-31-20 13:20 | | | | | | Jan-31-20 13:20 | | Feb-21-20 17:10 | |
| | ***Analyzed:*** | Jan-31-20 17:01 | | Jan-31-20 17:08 | | | | | | Jan-31-20 17:14 | | Feb-22-20 19:37 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | | | | | mg/kg | RL | mg/kg | RL |
| Chloride | | 150 | 5.00 | 594 | 5.03 | | | | | 63.7 | 5.05 | 76.0 | 4.97 |
| **TPH by SW8015 Mod** | ***Extracted:*** | | | Feb-21-20 17:00 | | | | | | Feb-21-20 17:00 | | Feb-21-20 17:00 | |
| | ***Analyzed:*** | | | Feb-21-20 20:57 | | | | | | Feb-21-20 21:16 | | Feb-21-20 21:35 | |
| | ***Units/RL:*** | | | mg/kg | RL | | | | | mg/kg | RL | mg/kg | RL |
| Gasoline Range Hydrocarbons (GRO) | | | | <49.8 | 49.8 | | | | | <49.9 | 49.9 | <50.0 | 50.0 |
| Diesel Range Organics (DRO) | | | | <49.8 | 49.8 | | | | | <49.9 | 49.9 | <50.0 | 50.0 |
| Motor Oil Range Hydrocarbons (MRO) | | | | <49.8 | 49.8 | | | | | <49.9 | 49.9 | <50.0 | 50.0 |
| Total TPH | | | | <49.8 | 49.8 | | | | | <49.9 | 49.9 | <50.0 | 50.0 |

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Holly Taylor
Project Manager

# Analytical Report 650826

## for

## Larson and Associates, Inc.

**Project Manager: Mark Larson**

**Culebra Bluff-Chevron**

**19-0180-07**

**02-MAR-20**

Collected By: Client

**1211 W. Florida Ave**
**Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02-MAR-20

Project Manager: **Mark Larson**
**Larson and Associates, Inc.**
P. O. Box 50685
Midland, TX 79710

Reference: XENCO Report No(s): **650826**
**Culebra Bluff-Chevron**
Project Address:

**Mark Larson** :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650826. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650826 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

**Holly Taylor**
Project Manager

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*Certified and approved by numerous States and Agencies.*
*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

# Sample Cross Reference 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---|---|---|---|---|
| S-13 (6') | S | 01-28-20 10:15 | | 650826-001 |
| S-10 (6') | S | 01-28-20 10:26 | | 650826-005 |
| S-14 (6') | S | 01-28-20 10:37 | | 650826-009 |
| S-12 (6') | S | 01-28-20 10:48 | | 650826-013 |
| S-12 (15') | S | 01-28-20 10:49 | | 650826-014 |
| S-12 (20') | S | 01-28-20 10:50 | | 650826-015 |
| S-8 (6') | S | 01-28-20 10:59 | | 650826-016 |
| S-8 (10') | S | 01-28-20 11:01 | | 650826-017 |
| S-8 (15') | S | 01-28-20 11:03 | | 650826-018 |
| S-8 (20') | S | 01-28-20 11:05 | | 650826-019 |
| S-11 (10') | S | 01-28-20 11:15 | | 650826-020 |
| S-11 (15') | S | 01-28-20 11:17 | | 650826-021 |
| S-11 (20') | S | 01-28-20 11:20 | | 650826-022 |
| S-1 (10') | S | 01-28-20 11:23 | | 650826-023 |
| S-1 (15') | S | 01-28-20 11:25 | | 650826-024 |
| S-1 (20') | S | 01-28-20 11:28 | | 650826-025 |
| S-4 (10') | S | 01-28-20 11:35 | | 650826-026 |
| S-4 (15') | S | 01-28-20 11:38 | | 650826-027 |
| S-4 (20') | S | 01-28-20 11:40 | | 650826-028 |
| S-2(10') | S | 01-28-20 11:45 | | 650826-029 |
| S-2 (15') | S | 01-28-20 11:47 | | 650826-030 |
| S-2 (20') | S | 01-28-20 11:49 | | 650826-031 |
| S-3 (10') | S | 01-28-20 11:53 | | 650826-032 |
| S-3 (15') | S | 01-28-20 11:54 | | 650826-033 |
| S-3 (20') | S | 01-28-20 11:55 | | 650826-034 |
| S-7 (6') | S | 01-28-20 12:07 | | 650826-035 |
| S-7 (10') | S | 01-28-20 12:08 | | 650826-036 |
| S-7 (15') | S | 01-28-20 12:09 | | 650826-037 |
| S-7 (20') | S | 01-28-20 12:10 | | 650826-038 |
| S-5 10') | S | 01-28-20 12:17 | | 650826-039 |
| S-5 (15') | S | 01-28-20 12:19 | | 650826-040 |
| S-5 (20') | S | 01-28-20 12:21 | | 650826-041 |
| S-6 (10') | S | 01-28-20 12:30 | | 650826-042 |
| S-6(15') | S | 01-28-20 12:32 | | 650826-043 |
| S-6 (20') | S | 01-28-20 12:35 | | 650826-044 |
| S-21 (11') | S | 01-28-20 12:45 | | 650826-045 |
| S-21 (15') | S | 01-28-20 12:47 | | 650826-046 |
| S-21 (20') | S | 01-28-20 12:49 | | 650826-047 |
| S-15 (2') | S | 01-28-20 13:50 | | 650826-048 |
| S-15 (5') | S | 01-28-20 13:51 | | 650826-049 |
| S-15 (10') | S | 01-28-20 13:52 | | 650826-050 |
| S-15 (15') | S | 01-28-20 13:53 | | 650826-051 |
| S-15 (20') | S | 01-28-20 13:54 | | 650826-052 |

# Sample Cross Reference 650826



## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | |
|---|---|---|---|
| S-16 (2') | S | 01-29-20 09:16 | 650826-053 |
| S-16 (5') | S | 01-29-20 09:17 | 650826-054 |
| S-16 (10') | S | 01-29-20 09:22 | 650826-055 |
| S-17 (2') | S | 01-29-20 09:29 | 650826-058 |
| S-18 (5') | S | 01-29-20 09:42 | 650826-063 |
| S-22 (5') | S | 01-29-20 09:53 | 650826-067 |
| S-26 (0-0.5') | S | 01-29-20 10:06 | 650826-071 |
| S-26 (2') | S | 01-29-20 10:07 | 650826-072 |
| S-26 (5') | S | 01-29-20 10:08 | 650826-073 |
| S-27 (0-0.5') | S | 01-29-20 10:31 | 650826-077 |
| S-27 (0.5-1') | S | 01-29-20 10:33 | 650826-078 |
| S-13 (10') | S | 01-28-20 10:17 | Not Analyzed |
| S-13 (15') | S | 01-28-20 10:18 | Not Analyzed |
| S-13 (20') | S | 01-28-20 10:20 | Not Analyzed |
| S-10 (10') | S | 01-28-20 10:28 | Not Analyzed |
| S-10 (15') | S | 01-28-20 10:29 | Not Analyzed |
| S-10 (20') | S | 01-28-20 10:30 | Not Analyzed |
| S-14 (10') | S | 01-28-20 10:38 | Not Analyzed |
| S-14 (15') | S | 01-28-20 10:39 | Not Analyzed |
| S-14 (20') | S | 01-28-20 10:40 | Not Analyzed |
| S-16 (15') | S | 01-29-20 09:23 | Not Analyzed |
| S-16 (20') | S | 01-29-20 09:24 | Not Analyzed |
| S-17 (5') | S | 01-29-20 09:30 | Not Analyzed |
| S-17 (10') | S | 01-29-20 09:31 | Not Analyzed |
| S-17 (15') | S | 01-29-20 09:32 | Not Analyzed |
| S-17 (20') | S | 01-29-20 09:33 | Not Analyzed |
| S-18 (10') | S | 01-29-20 09:43 | Not Analyzed |
| S-18 (15') | S | 01-29-20 09:44 | Not Analyzed |
| S-18 (20') | S | 01-29-20 09:45 | Not Analyzed |
| S-22 (10') | S | 01-29-20 09:55 | Not Analyzed |
| S-22 (15') | S | 01-29-20 09:57 | Not Analyzed |
| S-22 (20') | S | 01-29-20 09:59 | Not Analyzed |
| S-26 (10') | S | 01-29-20 10:09 | Not Analyzed |
| S-26 (15') | S | 01-29-20 10:10 | Not Analyzed |
| S-26 (20') | S | 01-29-20 10:11 | Not Analyzed |

# CASE NARRATIVE



***Client Name: Larson and Associates, Inc.***
***Project Name: Culebra Bluff-Chevron***

Project ID: *19-0180-07*
Work Order Number(s): *650826*

Report Date: *02-MAR-20*
Date Received: *01/30/2020*

**Sample receipt non conformances and comments:**

2/21/2020 1.001 Revised to report BTEX and TPH per COC (run out of hold time) per Rachal Owen (phone).

**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3115217 Chloride by EPA 300
Lab Sample ID 650826-020 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 650826-001, -005, -009, -013, -016, -020, -023, -026, -029, -032, -035, -039, -042, -045, -048, -053, -058.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3115218 Chloride by EPA 300
Lab Sample ID 650835-010 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 650826-063, -067, -071, -077.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3115405 Chloride by EPA 300
Lab Sample ID 650994-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 650826-014, -017, -021, -024, -027, -030, -033, -036, -040.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3116337 Chloride by EPA 300
Lab Sample ID 650826-049 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 650826-041, -047, -049.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

# CASE NARRATIVE



***Client Name: Larson and Associates, Inc.***
***Project Name: Culebra Bluff-Chevron***

Project ID: *19-0180-07*
Work Order Number(s): *650826*

Report Date: *02-MAR-20*
Date Received: *01/30/2020*

Batch: LBA-3116782 Chloride by EPA 300
Lab Sample ID 652504-008 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 650826-051, -055.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3118135 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3118235 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7697827-1-BLK,650826-073.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-13 (6')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-001 | Date Collected: | 01.28.20 10.15 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **382** | 5.00 | mg/kg | 01.31.20 14.14 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-10 (6')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-005 | Date Collected: | 01.28.20 10.26 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **325** | 5.03 | mg/kg | 01.31.20 14.54 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-14 (6')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-009 | Date Collected: | 01.28.20 10.37 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **589** | 4.98 | mg/kg | 01.31.20 15.14 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-12 (6')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-013 | Date Collected: | 01.28.20 10.48 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **670** | 5.05 | mg/kg | 01.31.20 15.21 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-12 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-014 | Date Collected: | 01.28.20 10.49 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 14.35 | Basis: | Wet Weight |
| Seq Number: | 3115405 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **865** | 5.05 | mg/kg | 02.03.20 21.12 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-12 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-015 | Date Collected: | 01.28.20 10.50 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 08.20 | Basis: | Wet Weight |
| Seq Number: | 3116222 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **738** | 4.96 | mg/kg | 02.11.20 09.45 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-8 (6')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-016 | Date Collected: | 01.28.20 10.59 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1130** | 24.8 | mg/kg | 01.31.20 15.28 | | 5 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-8 (10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-017 | Date Collected: | 01.28.20 11.01 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 14.35 | Basis: | Wet Weight |
| Seq Number: | 3115405 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1700** | 25.0 | mg/kg | 02.03.20 21.39 | | 5 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-8 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-018 | Date Collected: | 01.28.20 11.03 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 08.20 | Basis: | Wet Weight |
| Seq Number: | 3116222 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1540** | 25.2 | mg/kg | 02.11.20 10.18 | | 5 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-8 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-019 | Date Collected: | 01.28.20 11.05 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | SPC | Date Prep: | 02.13.20 16.30 | Basis: | Wet Weight |
| Seq Number: | 3116535 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1440** | 25.0 | mg/kg | 02.13.20 21.11 | | 5 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-11 (10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-020 | Date Collected: | 01.28.20 11.15 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **928** | 5.03 | mg/kg | 01.31.20 15.48 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-11 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-021 | Date Collected: | 01.28.20 11.17 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 14.35 | Basis: | Wet Weight |
| Seq Number: | 3115405 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1110** | 5.00 | mg/kg | 02.03.20 21.59 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-11 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-022 | Date Collected: | 01.28.20 11.20 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 11.45 | Basis: | Wet Weight |
| Seq Number: | 3116306 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1060** | 4.99 | mg/kg | 02.12.20 14.13 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-1 (10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-023 | Date Collected: | 01.28.20 11.23 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1470** | 4.99 | mg/kg | 01.31.20 15.34 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-1 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-024 | Date Collected: | 01.28.20 11.25 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 14.35 | Basis: | Wet Weight |
| Seq Number: | 3115405 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **999** | 5.00 | mg/kg | 02.03.20 22.05 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-1 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-025 | Date Collected: | 01.28.20 11.28 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 11.45 | Basis: | Wet Weight |
| Seq Number: | 3116306 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1070** | 5.01 | mg/kg | 02.12.20 14.18 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-4 (10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-026 | Date Collected: | 01.28.20 11.35 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1430** | 4.95 | mg/kg | 01.31.20 15.41 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-4 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-027 | Date Collected: | 01.28.20 11.38 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 14.35 | Basis: | Wet Weight |
| Seq Number: | 3115405 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1360** | 4.98 | mg/kg | 02.03.20 22.12 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-4 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-028 | Date Collected: | 01.28.20 11.40 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 11.45 | Basis: | Wet Weight |
| Seq Number: | 3116306 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1050** | 5.00 | mg/kg | 02.12.20 14.24 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-2(10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-029 | Date Collected: | 01.28.20 11.45 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **751** | 4.99 | mg/kg | 01.31.20 16.08 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-2 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-030 | Date Collected: | 01.28.20 11.47 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 14.35 | Basis: | Wet Weight |
| Seq Number: | 3115405 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1150** | 4.99 | mg/kg | 02.03.20 22.19 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-2 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-031 | Date Collected: | 01.28.20 11.49 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 11.45 | Basis: | Wet Weight |
| Seq Number: | 3116306 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1060** | 5.03 | mg/kg | 02.12.20 14.29 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-3 (10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-032 | Date Collected: | 01.28.20 11.53 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **879** | 4.97 | mg/kg | 01.31.20 16.14 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-3 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-033 | Date Collected: | 01.28.20 11.54 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 14.35 | Basis: | Wet Weight |
| Seq Number: | 3115405 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1240** | 5.03 | mg/kg | 02.03.20 22.25 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-3 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-034 | Date Collected: | 01.28.20 11.55 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 11.45 | Basis: | Wet Weight |
| Seq Number: | 3116306 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1240** | 4.98 | mg/kg | 02.12.20 14.34 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-7 (6')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-035 | Date Collected: | 01.28.20 12.07 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1930** | 24.8 | mg/kg | 01.31.20 16.34 | | 5 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-7 (10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-036 | Date Collected: | 01.28.20 12.08 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 14.35 | Basis: | Wet Weight |
| Seq Number: | 3115405 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1020** | 5.01 | mg/kg | 02.03.20 22.32 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-7 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-037 | Date Collected: | 01.28.20 12.09 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 11.45 | Basis: | Wet Weight |
| Seq Number: | 3116306 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1030** | 4.98 | mg/kg | 02.12.20 14.40 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-7 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-038 | Date Collected: | 01.28.20 12.10 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | SPC | Date Prep: | 02.13.20 16.30 | Basis: | Wet Weight |
| Seq Number: | 3116535 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **847** | 5.05 | mg/kg | 02.13.20 21.41 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-5 10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-039 | Date Collected: | 01.28.20 12.17 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1110** | 5.02 | mg/kg | 01.31.20 16.41 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-5 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-040 | Date Collected: | 01.28.20 12.19 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 14.35 | Basis: | Wet Weight |
| Seq Number: | 3115405 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **845** | 4.96 | mg/kg | 02.03.20 22.39 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-5 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-041 | Date Collected: | 01.28.20 12.21 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 12.10 | Basis: | Wet Weight |
| Seq Number: | 3116337 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **711** | 5.04 | mg/kg | 02.12.20 17.56 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-6 (10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-042 | Date Collected: | 01.28.20 12.30 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **693** | 5.05 | mg/kg | 01.31.20 16.48 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-6(15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-043 | Date Collected: | 01.28.20 12.32 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 16.10 | Basis: | Wet Weight |
| Seq Number: | 3115408 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **521** | 5.03 | mg/kg | 02.03.20 23.19 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-6 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-044 | Date Collected: | 01.28.20 12.35 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | SPC | Date Prep: | 02.13.20 16.30 | Basis: | Wet Weight |
| Seq Number: | 3116535 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **921** | 5.03 | mg/kg | 02.13.20 21.48 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-21 (11')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-045 | Date Collected: | 01.28.20 12.45 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **900** | 4.98 | mg/kg | 01.31.20 16.55 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-21 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-046 | Date Collected: | 01.28.20 12.47 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 16.10 | Basis: | Wet Weight |
| Seq Number: | 3115408 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **805** | 4.98 | mg/kg | 02.03.20 23.39 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-21 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-047 | Date Collected: | 01.28.20 12.49 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 12.10 | Basis: | Wet Weight |
| Seq Number: | 3116337 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1230** | 5.05 | mg/kg | 02.12.20 18.12 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

Sample Id: **S-15 (2')** Matrix: Soil Date Received:01.30.20 10.01

Lab Sample Id: 650826-048 Date Collected: 01.28.20 13.50

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.31.20 12.30 Basis: Wet Weight

Seq Number: 3115217

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **751** | 5.00 | mg/kg | 01.31.20 17.01 | | 1 |

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 02.21.20 17.00 Basis: Wet Weight

Seq Number: 3117254

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <49.9 | 49.9 | mg/kg | 02.21.20 20.19 | UK | 1 |
| **Diesel Range Organics (DRO)** | C10C28DRO | **171** | 49.9 | mg/kg | 02.21.20 20.19 | K | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <49.9 | 49.9 | mg/kg | 02.21.20 20.19 | UK | 1 |
| **Total TPH** | PHC635 | **171** | 49.9 | mg/kg | 02.21.20 20.19 | K | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 78 | % | 70-135 | 02.21.20 20.19 | |
| o-Terphenyl | 84-15-1 | 77 | % | 70-135 | 02.21.20 20.19 | |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-15 (5')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-049 | Date Collected: | 01.28.20 13.51 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.11.20 12.10 | Basis: | Wet Weight |
| Seq Number: | 3116337 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1140** | 5.00 | mg/kg | 02.12.20 19.10 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-15 (10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-050 | Date Collected: | 01.28.20 13.52 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | SPC | Date Prep: | 02.13.20 16.30 | Basis: | Wet Weight |
| Seq Number: | 3116535 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **823** | 4.97 | mg/kg | 02.13.20 22.10 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-15 (15')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-051 | Date Collected: | 01.28.20 13.53 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.17.20 13.05 | Basis: | Wet Weight |
| Seq Number: | 3116782 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **721** | 4.99 | mg/kg | 02.17.20 15.02 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-15 (20')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-052 | Date Collected: | 01.28.20 13.54 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | SPC | | | % Moisture: | |
| Analyst: | SPC | Date Prep: | 02.18.20 17.30 | Basis: | Wet Weight |
| Seq Number: | 3116902 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **722** | 5.01 | mg/kg | 02.18.20 21.42 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-16 (2')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-053 | Date Collected: | 01.29.20 09.16 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 12.30 | Basis: | Wet Weight |
| Seq Number: | 3115217 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **966** | 4.97 | mg/kg | 01.31.20 17.08 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-16 (5')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-054 | Date Collected: | 01.29.20 09.17 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.03.20 16.10 | Basis: | Wet Weight |
| Seq Number: | 3115408 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **301** | 5.00 | mg/kg | 02.03.20 23.45 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-16 (10')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-055 | Date Collected: | 01.29.20 09.22 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 02.17.20 13.05 | Basis: | Wet Weight |
| Seq Number: | 3116782 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **506** | 5.02 | mg/kg | 02.17.20 15.17 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

Sample Id: **S-17 (2')** Matrix: Soil Date Received:01.30.20 10.01

Lab Sample Id: 650826-058 Date Collected: 01.29.20 09.29

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.31.20 12.30 Basis: Wet Weight

Seq Number: 3115217

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **223** | 4.96 | mg/kg | 01.31.20 17.15 | | 1 |

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 02.21.20 17.00 Basis: Wet Weight

Seq Number: 3117254

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <50.0 | 50.0 | mg/kg | 02.21.20 20.38 | UK | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <50.0 | 50.0 | mg/kg | 02.21.20 20.38 | UK | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <50.0 | 50.0 | mg/kg | 02.21.20 20.38 | UK | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 02.21.20 20.38 | UK | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 78 | % | 70-135 | 02.21.20 20.38 | |
| o-Terphenyl | 84-15-1 | 74 | % | 70-135 | 02.21.20 20.38 | |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-18 (5')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-063 | Date Collected: | 01.29.20 09.42 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 13.20 | Basis: | Wet Weight |
| Seq Number: | 3115218 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **63.8** | 4.96 | mg/kg | 01.31.20 16.41 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-22 (5')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-067 | Date Collected: | 01.29.20 09.53 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 13.20 | Basis: | Wet Weight |
| Seq Number: | 3115218 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **150** | 5.00 | mg/kg | 01.31.20 17.01 | | 1 |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

Sample Id: **S-26 (0-0.5')** Matrix: Soil Date Received:01.30.20 10.01

Lab Sample Id: 650826-071 Date Collected: 01.29.20 10.06

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.31.20 13.20 Basis: Wet Weight

Seq Number: 3115218

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **594** | 5.03 | mg/kg | 01.31.20 17.08 | | 1 |

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 02.21.20 17.00 Basis: Wet Weight

Seq Number: 3117254

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <49.8 | 49.8 | mg/kg | 02.21.20 20.57 | UK | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <49.8 | 49.8 | mg/kg | 02.21.20 20.57 | UK | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <49.8 | 49.8 | mg/kg | 02.21.20 20.57 | UK | 1 |
| Total TPH | PHC635 | <49.8 | 49.8 | mg/kg | 02.21.20 20.57 | UK | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 79 | % | 70-135 | 02.21.20 20.57 | |
| o-Terphenyl | 84-15-1 | 76 | % | 70-135 | 02.21.20 20.57 | |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-26 (0-0.5')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-071 | Date Collected: | 01.29.20 10.06 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 03.01.20 10.00 | Basis: | Wet Weight |
| Seq Number: | 3118135 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00202 | 0.00202 | mg/kg | 03.01.20 20.50 | UK | 1 |
| Toluene | 108-88-3 | <0.00202 | 0.00202 | mg/kg | 03.01.20 20.50 | UK | 1 |
| Ethylbenzene | 100-41-4 | <0.00202 | 0.00202 | mg/kg | 03.01.20 20.50 | UK | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00403 | 0.00403 | mg/kg | 03.01.20 20.50 | UK | 1 |
| o-Xylene | 95-47-6 | <0.00202 | 0.00202 | mg/kg | 03.01.20 20.50 | UK | 1 |
| Total Xylenes | 1330-20-7 | <0.00202 | 0.00202 | mg/kg | 03.01.20 20.50 | UK | 1 |
| Total BTEX | | <0.00202 | 0.00202 | mg/kg | 03.01.20 20.50 | UK | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 97 | % | 70-130 | 03.01.20 20.50 | |
| 4-Bromofluorobenzene | 460-00-4 | 86 | % | 70-130 | 03.01.20 20.50 | |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-26 (2')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-072 | Date Collected: | 01.29.20 10.07 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 03.01.20 08.00 | Basis: | Wet Weight |
| Seq Number: | 3118235 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00199 | 0.00199 | mg/kg | 03.01.20 18.27 | UK | 1 |
| Toluene | 108-88-3 | <0.00199 | 0.00199 | mg/kg | 03.01.20 18.27 | UK | 1 |
| Ethylbenzene | 100-41-4 | <0.00199 | 0.00199 | mg/kg | 03.01.20 18.27 | UK | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00398 | 0.00398 | mg/kg | 03.01.20 18.27 | UK | 1 |
| o-Xylene | 95-47-6 | <0.00199 | 0.00199 | mg/kg | 03.01.20 18.27 | UK | 1 |
| Total Xylenes | 1330-20-7 | <0.00199 | 0.00199 | mg/kg | 03.01.20 18.27 | UK | 1 |
| Total BTEX | | <0.00199 | 0.00199 | mg/kg | 03.01.20 18.27 | UK | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 108 | % | 70-130 | 03.01.20 18.27 | |
| 1,4-Difluorobenzene | 540-36-3 | 97 | % | 70-130 | 03.01.20 18.27 | |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-26 (5')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-073 | Date Collected: | 01.29.20 10.08 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 03.01.20 08.00 | Basis: | Wet Weight |
| Seq Number: | 3118235 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 03.01.20 18.48 | UK | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 03.01.20 18.48 | UK | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 03.01.20 18.48 | UK | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00399 | 0.00399 | mg/kg | 03.01.20 18.48 | UK | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 03.01.20 18.48 | UK | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 03.01.20 18.48 | UK | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 03.01.20 18.48 | UK | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 131 | % | 70-130 | 03.01.20 18.48 | ** |
| 1,4-Difluorobenzene | 540-36-3 | 88 | % | 70-130 | 03.01.20 18.48 | |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-27 (0-0.5')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-077 | Date Collected: | 01.29.20 10.31 | | |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 01.31.20 13.20 | Basis: | Wet Weight |
| Seq Number: | 3115218 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **63.7** | 5.05 | mg/kg | 01.31.20 17.14 | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Analytical Method: | TPH by SW8015 Mod | | | Prep Method: | SW8015P |
| Tech: | DVM | | | % Moisture: | |
| Analyst: | ARM | Date Prep: | 02.21.20 17.00 | Basis: | Wet Weight |
| Seq Number: | 3117254 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <49.9 | 49.9 | mg/kg | 02.21.20 21.16 | UK | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <49.9 | 49.9 | mg/kg | 02.21.20 21.16 | UK | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <49.9 | 49.9 | mg/kg | 02.21.20 21.16 | UK | 1 |
| Total TPH | PHC635 | <49.9 | 49.9 | mg/kg | 02.21.20 21.16 | UK | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 90 | % | 70-135 | 02.21.20 21.16 | |
| o-Terphenyl | 84-15-1 | 84 | % | 70-135 | 02.21.20 21.16 | |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-27 (0-0.5')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-077 | Date Collected: | 01.29.20 10.31 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 03.01.20 08.00 | Basis: | Wet Weight |
| Seq Number: | 3118235 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00198 | 0.00198 | mg/kg | 03.01.20 19.09 | UK | 1 |
| Toluene | 108-88-3 | <0.00198 | 0.00198 | mg/kg | 03.01.20 19.09 | UK | 1 |
| Ethylbenzene | 100-41-4 | <0.00198 | 0.00198 | mg/kg | 03.01.20 19.09 | UK | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00396 | 0.00396 | mg/kg | 03.01.20 19.09 | UK | 1 |
| o-Xylene | 95-47-6 | <0.00198 | 0.00198 | mg/kg | 03.01.20 19.09 | UK | 1 |
| Total Xylenes | 1330-20-7 | <0.00198 | 0.00198 | mg/kg | 03.01.20 19.09 | UK | 1 |
| Total BTEX | | <0.00198 | 0.00198 | mg/kg | 03.01.20 19.09 | UK | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 107 | % | 70-130 | 03.01.20 19.09 | |
| 1,4-Difluorobenzene | 540-36-3 | 95 | % | 70-130 | 03.01.20 19.09 | |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

Sample Id: **S-27 (0.5-1')** Matrix: Soil Date Received:01.30.20 10.01

Lab Sample Id: 650826-078 Date Collected: 01.29.20 10.33

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.21.20 17.10 Basis: Wet Weight

Seq Number: 3117340

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **76.0** | 4.97 | mg/kg | 02.22.20 19.37 | | 1 |

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 02.21.20 17.00 Basis: Wet Weight

Seq Number: 3117254

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <50.0 | 50.0 | mg/kg | 02.21.20 21.35 | UK | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <50.0 | 50.0 | mg/kg | 02.21.20 21.35 | UK | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <50.0 | 50.0 | mg/kg | 02.21.20 21.35 | UK | 1 |
| Total TPH | PHC635 | <50.0 | 50.0 | mg/kg | 02.21.20 21.35 | UK | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 79 | % | 70-135 | 02.21.20 21.35 | |
| o-Terphenyl | 84-15-1 | 75 | % | 70-135 | 02.21.20 21.35 | |

# Certificate of Analytical Results 650826

## Larson and Associates, Inc., Midland, TX

Culebra Bluff-Chevron

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **S-27 (0.5-1')** | Matrix: | Soil | Date Received: | 01.30.20 10.01 |
| Lab Sample Id: | 650826-078 | Date Collected: | 01.29.20 10.33 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | KTL | | | % Moisture: | |
| Analyst: | KTL | Date Prep: | 03.01.20 08.00 | Basis: | Wet Weight |
| Seq Number: | 3118235 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 03.01.20 19.29 | UK | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 03.01.20 19.29 | UK | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 03.01.20 19.29 | UK | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00400 | 0.00400 | mg/kg | 03.01.20 19.29 | UK | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 03.01.20 19.29 | UK | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 03.01.20 19.29 | UK | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 03.01.20 19.29 | UK | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 109 | % | 70-130 | 03.01.20 19.29 | |
| 1,4-Difluorobenzene | 540-36-3 | 95 | % | 70-130 | 03.01.20 19.29 | |

# Flagging Criteria

**X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

**B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

**D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

**E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

**F** RPD exceeded lab control limits.

**J** The target analyte was positively identified below the quantitation limit and above the detection limit.

**U** Analyte was not detected.

**L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

**H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

**K** Sample analyzed outside of recommended hold time.

**JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

**PQL** Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

# QC Summary 650826



## Larson and Associates, Inc.

Culebra Bluff-Chevron

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115217 — Matrix: Solid — Date Prep: 01.31.20
MB Sample Id: 7695688-1-BLK — LCS Sample Id: 7695688-1-BKS — LCSD Sample Id: 7695688-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 261 | 104 | 255 | 102 | 90-110 | 2 | 20 | mg/kg | 01.31.20 14:01 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115218 — Matrix: Solid — Date Prep: 01.31.20
MB Sample Id: 7695690-1-BLK — LCS Sample Id: 7695690-1-BKS — LCSD Sample Id: 7695690-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <0.858 | 250 | 252 | 101 | 253 | 101 | 90-110 | 0 | 20 | mg/kg | 01.31.20 16:28 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115405 — Matrix: Solid — Date Prep: 02.03.20
MB Sample Id: 7695838-1-BLK — LCS Sample Id: 7695838-1-BKS — LCSD Sample Id: 7695838-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 255 | 102 | 255 | 102 | 90-110 | 0 | 20 | mg/kg | 02.03.20 19:26 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115408 — Matrix: Solid — Date Prep: 02.03.20
MB Sample Id: 7695850-1-BLK — LCS Sample Id: 7695850-1-BKS — LCSD Sample Id: 7695850-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <0.858 | 250 | 262 | 105 | 263 | 105 | 90-110 | 0 | 20 | mg/kg | 02.03.20 23:05 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116222 — Matrix: Solid — Date Prep: 02.11.20
MB Sample Id: 7696368-1-BLK — LCS Sample Id: 7696368-1-BKS — LCSD Sample Id: 7696368-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <0.858 | 250 | 249 | 100 | 250 | 100 | 90-110 | 0 | 20 | mg/kg | 02.11.20 09:32 | |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 650826



## Larson and Associates, Inc.

Culebra Bluff-Chevron

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116306 — Matrix: Solid — Date Prep: 02.11.20
MB Sample Id: 7696400-1-BLK — LCS Sample Id: 7696400-1-BKS — LCSD Sample Id: 7696400-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 265 | 106 | 267 | 107 | 90-110 | 1 | 20 | mg/kg | 02.12.20 12:07 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116337 — Matrix: Solid — Date Prep: 02.11.20
MB Sample Id: 7696401-1-BLK — LCS Sample Id: 7696401-1-BKS — LCSD Sample Id: 7696401-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 262 | 105 | 262 | 105 | 90-110 | 0 | 20 | mg/kg | 02.12.20 17:45 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116535 — Matrix: Solid — Date Prep: 02.13.20
MB Sample Id: 7696644-1-BLK — LCS Sample Id: 7696644-1-BKS — LCSD Sample Id: 7696644-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 256 | 102 | 256 | 102 | 90-110 | 0 | 20 | mg/kg | 02.13.20 19:21 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116782 — Matrix: Solid — Date Prep: 02.17.20
MB Sample Id: 7696798-1-BLK — LCS Sample Id: 7696798-1-BKS — LCSD Sample Id: 7696798-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 256 | 102 | 245 | 98 | 90-110 | 4 | 20 | mg/kg | 02.17.20 13:37 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116902 — Matrix: Solid — Date Prep: 02.18.20
MB Sample Id: 7696921-1-BLK — LCS Sample Id: 7696921-1-BKS — LCSD Sample Id: 7696921-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 248 | 99 | 249 | 100 | 90-110 | 0 | 20 | mg/kg | 02.18.20 20:00 | |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 650826



## Larson and Associates, Inc.

Culebra Bluff-Chevron

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117340 — Matrix: Solid — Date Prep: 02.21.20
MB Sample Id: 7697254-1-BLK — LCS Sample Id: 7697254-1-BKS — LCSD Sample Id: 7697254-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 251 | 100 | 249 | 100 | 90-110 | 1 | 20 | mg/kg | 02.22.20 18:34 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115217 — Matrix: Soil — Date Prep: 01.31.20
Parent Sample Id: 650826-001 — MS Sample Id: 650826-001 S — MSD Sample Id: 650826-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 382 | 250 | 640 | 103 | 635 | 101 | 90-110 | 1 | 20 | mg/kg | 01.31.20 14:21 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115217 — Matrix: Soil — Date Prep: 01.31.20
Parent Sample Id: 650826-020 — MS Sample Id: 650826-020 S — MSD Sample Id: 650826-020 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 928 | 252 | 1150 | 88 | 1140 | 84 | 90-110 | 1 | 20 | mg/kg | 01.31.20 15:54 | X |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115218 — Matrix: Soil — Date Prep: 01.31.20
Parent Sample Id: 650826-063 — MS Sample Id: 650826-063 S — MSD Sample Id: 650826-063 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 63.8 | 248 | 356 | 118 | 349 | 115 | 90-110 | 2 | 20 | mg/kg | 01.31.20 16:48 | X |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115218 — Matrix: Soil — Date Prep: 01.31.20
Parent Sample Id: 650835-010 — MS Sample Id: 650835-010 S — MSD Sample Id: 650835-010 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 397 | 250 | 660 | 105 | 656 | 104 | 90-110 | 1 | 20 | mg/kg | 01.31.20 18:21 | |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 650826



## Larson and Associates, Inc.

Culebra Bluff-Chevron

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115405 — Matrix: Soil — Date Prep: 02.03.20
Parent Sample Id: 650826-014 — MS Sample Id: 650826-014 S — MSD Sample Id: 650826-014 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 865 | 253 | 1090 | 89 | 1090 | 89 | 90-110 | 0 | 20 | mg/kg | 02.03.20 21:19 | X |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115405 — Matrix: Soil — Date Prep: 02.03.20
Parent Sample Id: 650994-004 — MS Sample Id: 650994-004 S — MSD Sample Id: 650994-004 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 272 | 250 | 533 | 104 | 530 | 103 | 90-110 | 1 | 20 | mg/kg | 02.03.20 19:46 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115408 — Matrix: Soil — Date Prep: 02.03.20
Parent Sample Id: 650826-043 — MS Sample Id: 650826-043 S — MSD Sample Id: 650826-043 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 521 | 252 | 789 | 106 | 775 | 101 | 90-110 | 2 | 20 | mg/kg | 02.03.20 23:25 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115408 — Matrix: Soil — Date Prep: 02.03.20
Parent Sample Id: 650846-001 — MS Sample Id: 650846-001 S — MSD Sample Id: 650846-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 291 | 250 | 555 | 106 | 551 | 104 | 90-110 | 1 | 20 | mg/kg | 02.04.20 00:58 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116222 — Matrix: Soil — Date Prep: 02.11.20
Parent Sample Id: 650826-015 — MS Sample Id: 650826-015 S — MSD Sample Id: 650826-015 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 738 | 198 | 946 | 105 | 947 | 106 | 90-110 | 0 | 20 | mg/kg | 02.11.20 09:52 | |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 650826



## Larson and Associates, Inc.

Culebra Bluff-Chevron

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116222 — Matrix: Soil — Date Prep: 02.11.20
Parent Sample Id: 651875-007 — MS Sample Id: 651875-007 S — MSD Sample Id: 651875-007 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 982 | 202 | 1180 | 98 | 1190 | 103 | 90-110 | 1 | 20 | mg/kg | 02.11.20 11:45 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116306 — Matrix: Soil — Date Prep: 02.11.20
Parent Sample Id: 651910-001 — MS Sample Id: 651910-001 S — MSD Sample Id: 651910-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 316 | 251 | 570 | 101 | 571 | 102 | 90-110 | 0 | 20 | mg/kg | 02.12.20 12:23 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116306 — Matrix: Soil — Date Prep: 02.11.20
Parent Sample Id: 651910-011 — MS Sample Id: 651910-011 S — MSD Sample Id: 651910-011 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 186 | 249 | 432 | 99 | 429 | 98 | 90-110 | 1 | 20 | mg/kg | 02.12.20 13:36 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116337 — Matrix: Soil — Date Prep: 02.11.20
Parent Sample Id: 650826-041 — MS Sample Id: 650826-041 S — MSD Sample Id: 650826-041 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 711 | 252 | 927 | 86 | 930 | 87 | 90-110 | 0 | 20 | mg/kg | 02.12.20 18:01 | X |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116337 — Matrix: Soil — Date Prep: 02.11.20
Parent Sample Id: 650826-049 — MS Sample Id: 650826-049 S — MSD Sample Id: 650826-049 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1140 | 250 | 1340 | 80 | 1350 | 84 | 90-110 | 1 | 20 | mg/kg | 02.12.20 19:15 | X |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 650826



## Larson and Associates, Inc.

Culebra Bluff-Chevron

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116535 — Matrix: Soil — Date Prep: 02.13.20
Parent Sample Id: 652270-020 — MS Sample Id: 652270-020 S — MSD Sample Id: 652270-020 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 318 | 250 | 567 | 100 | 567 | 100 | 90-110 | 0 | 20 | mg/kg | 02.13.20 19:43 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116535 — Matrix: Soil — Date Prep: 02.13.20
Parent Sample Id: 652270-027 — MS Sample Id: 652270-027 S — MSD Sample Id: 652270-027 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 65.0 | 249 | 322 | 103 | 323 | 104 | 90-110 | 0 | 20 | mg/kg | 02.13.20 21:26 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116782 — Matrix: Soil — Date Prep: 02.17.20
Parent Sample Id: 650826-051 — MS Sample Id: 650826-051 S — MSD Sample Id: 650826-051 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 721 | 250 | 934 | 85 | 932 | 84 | 90-110 | 0 | 20 | mg/kg | 02.17.20 15:07 | X |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116782 — Matrix: Soil — Date Prep: 02.17.20
Parent Sample Id: 652504-008 — MS Sample Id: 652504-008 S — MSD Sample Id: 652504-008 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 115 | 249 | 363 | 100 | 363 | 100 | 90-110 | 0 | 20 | mg/kg | 02.17.20 13:53 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116902 — Matrix: Soil — Date Prep: 02.18.20
Parent Sample Id: 652560-038 — MS Sample Id: 652560-038 S — MSD Sample Id: 652560-038 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 110 | 249 | 380 | 108 | 379 | 108 | 90-110 | 0 | 20 | mg/kg | 02.18.20 20:28 | |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 650826



## Larson and Associates, Inc.

Culebra Bluff-Chevron

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116902 — Matrix: Soil — Date Prep: 02.18.20
Parent Sample Id: 652805-003 — MS Sample Id: 652805-003 S — MSD Sample Id: 652805-003 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 274 | 252 | 508 | 93 | 509 | 93 | 90-110 | 0 | 20 | mg/kg | 02.18.20 22:37 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117340 — Matrix: Soil — Date Prep: 02.21.20
Parent Sample Id: 652871-008 — MS Sample Id: 652871-008 S — MSD Sample Id: 652871-008 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 211 | 249 | 460 | 100 | 459 | 100 | 90-110 | 0 | 20 | mg/kg | 02.22.20 19:06 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117340 — Matrix: Soil — Date Prep: 02.21.20
Parent Sample Id: 653280-008 — MS Sample Id: 653280-008 S — MSD Sample Id: 653280-008 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.05 | 253 | 259 | 102 | 260 | 103 | 90-110 | 0 | 20 | mg/kg | 02.22.20 21:35 | |

**Analytical Method:** TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117254 — Matrix: Solid — Date Prep: 02.21.20
MB Sample Id: 7697152-1-BLK — LCS Sample Id: 7697152-1-BKS — LCSD Sample Id: 7697152-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | <15.0 | 1000 | 1050 | 105 | 1010 | 101 | 70-135 | 4 | 20 | mg/kg | 02.21.20 10:00 | |
| Diesel Range Organics (DRO) | <15.0 | 1000 | 1160 | 116 | 1100 | 110 | 70-135 | 5 | 20 | mg/kg | 02.21.20 10:00 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 1-Chlorooctane | 84 | | 122 | | 120 | | 70-135 | % | 02.21.20 10:00 |
| o-Terphenyl | 84 | | 115 | | 113 | | 70-135 | % | 02.21.20 10:00 |

**Analytical Method:** TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117254 — Matrix: Solid — Date Prep: 02.21.20
MB Sample Id: 7697152-1-BLK

| Parameter | MB Result | Units | Analysis Date | Flag |
|---|---|---|---|---|
| Motor Oil Range Hydrocarbons (MRO) | <50.0 | mg/kg | 02.21.20 09:41 | |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

# QC Summary 650826



## Larson and Associates, Inc.

Culebra Bluff-Chevron

**Analytical Method:** TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3117254 | Matrix: Soil | Date Prep: 02.21.20
Parent Sample Id: 653163-001 | MS Sample Id: 653163-001 S | MSD Sample Id: 653163-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | <15.0 | 999 | 833 | 83 | 955 | 96 | 70-135 | 14 | 20 | mg/kg | 02.21.20 10:57 | |
| Diesel Range Organics (DRO) | 21.9 | 999 | 907 | 89 | 1040 | 102 | 70-135 | 14 | 20 | mg/kg | 02.21.20 10:57 | |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 1-Chlorooctane | 107 | | 123 | | 70-135 | % | 02.21.20 10:57 |
| o-Terphenyl | 92 | | 104 | | 70-135 | % | 02.21.20 10:57 |

**Analytical Method:** BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3118235 | Matrix: Solid | Date Prep: 03.01.20
MB Sample Id: 7697827-1-BLK | LCS Sample Id: 7697827-1-BKS | LCSD Sample Id: 7697827-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | 0.100 | 0.105 | 105 | 0.103 | 103 | 70-130 | 2 | 35 | mg/kg | 03.01.20 13:51 | |
| Toluene | <0.00200 | 0.100 | 0.100 | 100 | 0.105 | 105 | 70-130 | 5 | 35 | mg/kg | 03.01.20 13:51 | |
| Ethylbenzene | <0.00200 | 0.100 | 0.106 | 106 | 0.117 | 117 | 70-130 | 10 | 35 | mg/kg | 03.01.20 13:51 | |
| m,p-Xylenes | <0.00400 | 0.200 | 0.207 | 104 | 0.241 | 121 | 70-130 | 15 | 35 | mg/kg | 03.01.20 13:51 | |
| o-Xylene | <0.00200 | 0.100 | 0.102 | 102 | 0.121 | 121 | 70-130 | 17 | 35 | mg/kg | 03.01.20 13:51 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 93 | | 93 | | 90 | | 70-130 | % | 03.01.20 13:51 |
| 4-Bromofluorobenzene | 137 | ** | 104 | | 123 | | 70-130 | % | 03.01.20 13:51 |

**Analytical Method:** BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3118135 | Matrix: Solid | Date Prep: 03.01.20
MB Sample Id: 7697798-1-BLK | LCS Sample Id: 7697798-1-BKS | LCSD Sample Id: 7697798-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.000385 | 0.100 | 0.124 | 124 | 0.107 | 107 | 70-130 | 15 | 35 | mg/kg | 03.01.20 12:50 | |
| Toluene | <0.000456 | 0.100 | 0.117 | 117 | 0.107 | 107 | 70-130 | 9 | 35 | mg/kg | 03.01.20 12:50 | |
| Ethylbenzene | <0.000565 | 0.100 | 0.112 | 112 | 0.103 | 103 | 70-130 | 8 | 35 | mg/kg | 03.01.20 12:50 | |
| m,p-Xylenes | <0.00101 | 0.200 | 0.222 | 111 | 0.209 | 105 | 70-130 | 6 | 35 | mg/kg | 03.01.20 12:50 | |
| o-Xylene | <0.000344 | 0.100 | 0.111 | 111 | 0.104 | 104 | 70-130 | 7 | 35 | mg/kg | 03.01.20 12:50 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 93 | | 102 | | 100 | | 70-130 | % | 03.01.20 12:50 |
| 4-Bromofluorobenzene | 83 | | 97 | | 100 | | 70-130 | % | 03.01.20 12:50 |

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

# QC Summary 650826



## Larson and Associates, Inc.

Culebra Bluff-Chevron

**Analytical Method:** BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3118235 — Matrix: Soil — Date Prep: 03.01.20
Parent Sample Id: 653428-011 — MS Sample Id: 653428-011 S — MSD Sample Id: 653428-011 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | 0.0992 | 0.0894 | 90 | 0.0958 | 96 | 70-130 | 7 | 35 | mg/kg | 03.01.20 14:33 | |
| Toluene | <0.00198 | 0.0992 | 0.0980 | 99 | 0.0998 | 100 | 70-130 | 2 | 35 | mg/kg | 03.01.20 14:33 | |
| Ethylbenzene | <0.00198 | 0.0992 | 0.0974 | 98 | 0.0995 | 100 | 70-130 | 2 | 35 | mg/kg | 03.01.20 14:33 | |
| m,p-Xylenes | <0.00397 | 0.198 | 0.187 | 94 | 0.190 | 95 | 70-130 | 2 | 35 | mg/kg | 03.01.20 14:33 | |
| o-Xylene | <0.00198 | 0.0992 | 0.0908 | 92 | 0.0915 | 92 | 70-130 | 1 | 35 | mg/kg | 03.01.20 14:33 | |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 91 | | 87 | | 70-130 | % | 03.01.20 14:33 |
| 4-Bromofluorobenzene | 92 | | 85 | | 70-130 | % | 03.01.20 14:33 |

**Analytical Method:** BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3118135 — Matrix: Soil — Date Prep: 03.01.20
Parent Sample Id: 653393-002 — MS Sample Id: 653393-002 S — MSD Sample Id: 653393-002 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.000387 | 0.101 | 0.137 | 136 | 0.132 | 132 | 70-130 | 4 | 35 | mg/kg | 03.01.20 13:30 | X |
| Toluene | <0.000458 | 0.101 | 0.130 | 129 | 0.121 | 121 | 70-130 | 7 | 35 | mg/kg | 03.01.20 13:30 | |
| Ethylbenzene | <0.000568 | 0.101 | 0.120 | 119 | 0.111 | 111 | 70-130 | 8 | 35 | mg/kg | 03.01.20 13:30 | |
| m,p-Xylenes | <0.00102 | 0.201 | 0.229 | 114 | 0.212 | 106 | 70-130 | 8 | 35 | mg/kg | 03.01.20 13:30 | |
| o-Xylene | <0.000346 | 0.101 | 0.116 | 115 | 0.108 | 108 | 70-130 | 7 | 35 | mg/kg | 03.01.20 13:30 | |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 102 | | 103 | | 70-130 | % | 03.01.20 13:30 |
| 4-Bromofluorobenzene | 96 | | 101 | | 70-130 | % | 03.01.20 13:30 |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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605824

Nº 0961

# CHAIN-OF-CUSTODY

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

DATE: 1/30/2020 PAGE 1 OF 6

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Culebra Bluff - Chevron

LAI PROJECT #: 19-0180-07 COLLECTOR: RD

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES: CHLORIDES ☒ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-13 (0') | | 1/28/20 | 10:15 | S | 1 | | | | X | | X | Sample Cl- from shallow to deep until samples are below 600 mg/kg |
| S-13 (10') | | | 10:17 | | | | | | | | | |
| S-13 (15') | | | 10:18 | | | | | | | | | |
| S-13 (20') | | | 10:20 | | | | | | | | | |
| S-10 (0') | | | 10:26 | | | | | | | | | |
| S-10 (10') | | | 10:28 | | | | | | | | | |
| S-10 (15') | | | 10:29 | | | | | | | | | |
| S-10 (20') | | | 10:30 | | | | | | | | | |
| S-14 (0') | | | 10:37 | | | | | | | | | |
| S-14 (10') | | | 10:38 | | | | | | | | | |
| S-14 (15') | | | 10:39 | | | | | | | | | |
| S-14 (20') | | | 10:40 | | | | | | | | | |
| S-12 (10') | | | 10:48 | | | | | | | | | |
| S-12 (15') | | | 10:49 | | | | | | | | | |
| S-12 (20') | | | 10:50 | | | | | | | | | |
| 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 ☐ | TBLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐

RELINQUISHED BY:(Signature) Rachel Owen | DATE/TIME 1/30/20 | RECEIVED BY: (Signature) [illegible] 1001

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

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

LABORATORY: Xenco

**TURN AROUND TIME**
NORMAL ☒ 5-7 days
1 DAY ☐
2 DAY ☐
OTHER ☐

**LABORATORY USE ONLY:**
RECEIVING TEMP: 6.3 THERM#: 128
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

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605624

Nº 0962

# CHAIN-OF-CUSTODY

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

DATE: 1/30/2020 PAGE 2 OF 6

PO#: _____ LAB WORK ORDER#: _____

PROJECT LOCATION OR NAME: Culebra Bluff - Chevron

LAI PROJECT #: 19-0180-07 COLLECTOR: RD

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-8 (0') | | 1/28/20 | 10:59 | S | 1 | | | | X | | Cl | Sample Cl- from shallow to deep until concentrations are below 600 mg/Kg |
| S-8 (10') | | | 11:01 | | | | | | | | | |
| S-8 (15') | | | 11:03 | | | | | | | | | |
| S-8 (20') | | | 11:05 | | | | | | | | | |
| S-11 (10') | | | 11:15 | | | | | | | | | |
| S-11 (15') | | | 11:17 | | | | | | | | | |
| S-11 (20') | | | 11:20 | | | | | | | | | |
| S-1 (10') | | | 11:23 | | | | | | | | | |
| S-1 (15') | | | 11:25 | | | | | | | | | |
| S-1 (20') | | | 11:28 | | | | | | | | | |
| S-4 (10') | | | 11:35 | | | | | | | | | |
| S-4 (15') | | | 11:38 | | | | | | | | | |
| S-4 (20') | | | 11:40 | | | | | | | | | |
| S-2 (10') | | | 11:45 | | | | | | | | | |
| S-2 (15') | | | 11:47 | | | | | | | | | |
| TOTAL | | | | | 15 | | | | | | | |

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 1/30/2020 RECEIVED BY: (Signature) ICCI

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

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

LABORATORY: Xenco

**TURN AROUND TIME**
NORMAL ☒ 5-7 days
1 DAY ☐
2 DAY ☐
OTHER ☐

**LABORATORY USE ONLY:**
RECEIVING TEMP: 0.3 THERM#: 26
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

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Nº 0963

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 1/30/2020 PAGE 3 OF 6

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Culebra Bluff - Chevron

LAI PROJECT #: 19-0180-07 COLLECTOR: RD

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-2 (20') | | 1/28/20 | 11:49 | S | 1 | | | | X | | Cl- | Sample Cl- from shallow to deep until concentration is below 600 mg/kg |
| S-3 (10') | | | 11:53 | | | | | | | | | |
| S-3 (15') | | | 11:54 | | | | | | | | | |
| S-3 (20') | | | 11:55 | | | | | | | | | |
| S-7 (6') | | | 12:07 | | | | | | | | | |
| S-7 (10') | | | 12:08 | | | | | | | | | |
| S-7 (15') | | | 12:09 | | | | | | | | | |
| S-7 (20') | | | 12:10 | | | | | | | | | |
| S-5 (10') | | | 12:17 | | | | | | | | | |
| S-5 (15') | | | 12:19 | | | | | | | | | |
| S-5 (20') | | | 12:21 | | | | | | | | | |
| S-6 (10') | | | 12:30 | | | | | | | | | |
| S-6 (15') | | | 12:32 | | | | | | | | | |
| S-6 (20') | | | 12:35 | | | | | | | | | |
| S-21 (11') | | | 12:45 | | | | | | | | | |
| TOTAL | 15 | | | | | | | | | | | |

RELINQUISHED BY:(Signature) Rachel Cuevas DATE/TIME 1/30/20 RECEIVED BY: (Signature) 1001

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

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

LABORATORY: Xenco

TURN AROUND TIME
NORMAL Δ 5-7 days
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY
RECEIVING TEMP: 0.3 THERM#: RG
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

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LOSE46

№ 0964

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 1/30/2020 PAGE 4 OF 6

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Culebra Bluff - Chevron

LAI PROJECT #: 19-01807 COLLECTOR: RD

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ | TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☒ | VOC 8260 ☐ | SVOC 8270 ☐ | PAH 8270 ☐ | HOLDPAH ☐ | 8081 PESTICIDES ☐ | 8082 PCBS ☐ | 8151 HERBICIDES ☐ | TBLP - METALS (RCRA) ☐ | TCLP VOC ☐ | TCLP - PEST ☐ | HERB ☐ | Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ | OTHER LIST ☐ | LEAD - TOTAL ☐ | D.W. 200.8 ☐ | TCLP ☐ | RCI ☐ | TOX ☐ | FLASHPOINT ☐ | TDS ☐ | TSS ☐ | % MOISTURE ☐ | CYANIDE ☐ | pH ☐ | HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ | PECHLORATE ☐ | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-21 (15') | | 1/28/20 | 12:47 | S | 1 | | | | X | | X | Sample Cl- / TPH from shallow to deep until concentrations are below (600 mg/kg for Cl- and 100 mg/kg for TPH |
| S-21 (20') | | 1/28/20 | 12:49 | | | | | | | | | |
| S-15 (2') | | | 13:50 | | | | | | | | XXX | |
| S-15 (5') | | | 13:51 | | | | | | | | | |
| S-15 (10') | | | 13:52 | | | | | | | | | |
| S-15 (15') | | | 13:53 | | | | | | | | | |
| S-15 (20') | | | 13:54 | | | | | | | | | |
| S-16 (2') | | 1/29/20 | 9:16 | | | | | | | | | |
| S-16 (5') | | | 9:17 | | | | | | | | | |
| S-16 (10') | | | 9:22 | | | | | | | | | |
| S-16 (15') | | | 9:23 | | | | | | | | | |
| S-16 (20') | | | 9:24 | | | | | | | | | |
| S-17 (2') | | | 9:29 | | | | | | | | XXX | |
| S-17 (5') | | | 9:30 | | | | | | | | | |
| S-17 (10') | | | 9:31 | | | | | | | | | |
| TOTAL | | | | | 15 | | | | | | | |

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 1/30/20 RECEIVED BY: (Signature) 1001

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

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

LABORATORY: Xenco

TURN AROUND TIME
NORMAL ☒ 5-7 days
1 DAY ☐
2 DAY ☐
OTHER ☐

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

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1050824

# CHAIN-OF-CUSTODY

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

DATE: 1/30/2020 PAGE 5 OF 6

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Culebra Bluff-Chevron

LAI PROJECT #: 19-0180-07 COLLECTOR: RD

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

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION HCl | HNO3 | H2SO4 ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-17 (15') | | 1/29/20 | 9:32 | S | 1 | | | | X | | X | Sample Cl- and TPH from shallow to deep until 600 mg/kg is reached for Cl- and 100 mg/kg is reached for TPH |
| S-17 (20') | | | 9:33 | | | | | | | | X | |
| S-18 (5') | | | 9:42 | | | | | | | | X | |
| S-18 (10') | | | 9:43 | | | | | | | | X | |
| S-18 (15') | | | 9:44 | | | | | | | | X | |
| S-18 (20') | | | 9:45 | | | | | | | | X | |
| S-22 (5') | | | 9:53 | | | | | | | | X | |
| S-22 (10') | | | 9:55 | | | | | | | | X | |
| S-22 (15') | | | 9:57 | | | | | | | | X | |
| S-22 (20') | | | 9:59 | | | | | | | | X | |
| S-26 (0-0.5') | | | 10:06 | | | | | | | | X | |
| S-26 (2') | | | 10:07 | | | | | | | | X | |
| S-26 (5') | | | 10:08 | | | | | | | | X | |
| S-26 (10') | | | 10:09 | | | | | | | | X | |
| S-26 (15') | | | 10:10 | | | | | | | | X | |
| TOTAL | | | | | 15 | | | | | | | |

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 1/30/20 RECEIVED BY: (Signature) [illegible]

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

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

LABORATORY: Xenco

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

**LABORATORY USE ONLY:**
RECEIVING TEMP: 0.3 THERM#: R8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

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1050824

Nº 0966

# CHAIN-OF-CUSTODY

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

DATE: 1/30/2020 PAGE 6 OF 6

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Culebra Bluff-Chevron

LAI PROJECT #: 19-0180-07 COLLECTOR: RO

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☒ | VOC 8260 ☐ | SVOC 8270 ☐ | PAH 8270 ☐ | HOLDPAH ☐ | 8081 PESTICIDES ☐ | 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TBLP - METALS (RCRA) ☐ | TCLP VOC ☐ | TCLP - PEST ☐ | HERB ☐ | Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ | OTHER LIST ☐ | LEAD - TOTAL ☐ | D.W. 200.8 ☐ | TCLP ☐ | RCI ☐ | TOX ☐ | FLASHPOINT ☐ | TDS ☐ | TSS ☐ | % MOISTURE ☐ | pH ☐ | CYANIDE ☐ | HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ | PECHLORATE ☐ | CHLORIDES ☒ | ANIONS ☐ | ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-26 (20') | | 1/29/20 | 10:11 | S | 1 | | | | X | | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | analyze |
| S-27 (0-0.5') | | " | 10:31 | " | 1 | | | | 1 | | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | all BTEX/TPH + Cl- for |
| S-27 (0.5-1') | | " | 10:33 | " | 1 | | | | 1 | | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | S-27 (0-0.5') + S-27 (1-0.5') |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY:(Signature) Rachel Curtis DATE/TIME 1/30/20 RECEIVED BY:(Signature) 1001

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

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

LABORATORY: Xenco

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

**LABORATORY USE ONLY:**
RECEIVING TEMP: 0.3 THERM#: R8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

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# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In

**Client:** Larson and Associates, Inc.

**Date/ Time Received:** 01/30/2020 10:01:00 AM

**Work Order #:** 650826

**Acceptable Temperature Range: 0 - 6 degC**
**Air and Metal samples Acceptable Range: Ambient**

**Temperature Measuring device used : R8**

| Sample Receipt Checklist | Comments |
|---|---|
| #1 *Temperature of cooler(s)? | .3 |
| #2 *Shipping container in good condition? | **Yes** |
| #3 *Samples received on ice? | **Yes** |
| #4 *Custody Seals intact on shipping container/ cooler? | **N/A** |
| #5 Custody Seals intact on sample bottles? | **N/A** |
| #6*Custody Seals Signed and dated? | **N/A** |
| #7 *Chain of Custody present? | **Yes** |
| #8 Any missing/extra samples? | **No** |
| #9 Chain of Custody signed when relinquished/ received? | **Yes** |
| #10 Chain of Custody agrees with sample labels/matrix? | **Yes** |
| #11 Container label(s) legible and intact? | **Yes** |
| #12 Samples in proper container/ bottle? | **Yes** |
| #13 Samples properly preserved? | **Yes** |
| #14 Sample container(s) intact? | **Yes** |
| #15 Sufficient sample amount for indicated test(s)? | **Yes** |
| #16 All samples received within hold time? | **Yes** |
| #17 Subcontract of sample(s)? | **N/A** |
| #18 Water VOC samples have zero headspace? | **N/A** |

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

**Checklist completed by:** Brianna Teel Date: 01/30/2020

Brianna Teel

**Checklist reviewed by:** Jessica Kramer Date: 02/03/2020

Jessica Kramer

eurofins | Xenco

# Certificate of Analysis Summary 666164

## Larson and Associates, Inc., Midland, TX

## Project Name: Cukbre Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu 07.02.2020 08:21
**Report Date:** 07.09.2020 13:46
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 666164-001 | | 666164-002 | | 666164-003 | | 666164-004 | | 666164-005 | | 666164-006 | |
| | ***Field Id:*** | BH-2 20' | | BH-2 25' | | BH-2 30' | | BH-2 35' | | BH-2 40' | | BH-2 45' | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | 06.26.2020 12:30 | | 06.26.2020 12:35 | | 06.26.2020 12:40 | | 06.26.2020 12:45 | | 06.26.2020 12:50 | | 06.26.2020 12:55 | |
| **Chloride by EPA 300** | ***Extracted:*** | 07.02.2020 13:55 | | 07.02.2020 13:55 | | 07.02.2020 13:55 | | 07.02.2020 13:55 | | 07.02.2020 13:55 | | 07.02.2020 14:35 | |
| | ***Analyzed:*** | 07.02.2020 21:34 | | 07.02.2020 21:39 | | 07.02.2020 21:44 | | 07.02.2020 21:49 | | 07.02.2020 21:54 | | 07.02.2020 22:24 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 923 | 4.96 | 387 | 4.98 | 542 | 5.00 | 419 | 5.00 | 432 | 5.00 | 373 X | 4.98 |

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor

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# Certificate of Analysis Summary 666164

## Larson and Associates, Inc., Midland, TX

### Project Name: Cukbre Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu 07.02.2020 08:21
**Report Date:** 07.09.2020 13:46
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 666164-007 | | 666164-008 | | 666164-009 | | 666164-010 | | 666164-011 | | 666164-012 | |
| | ***Field Id:*** | BH-2 50' | | BH-2 55' | | BH-2 60' | | BH-1 20' | | BH-1 25' | | BH-1 30' | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | 06.26.2020 12:00 | | 06.26.2020 12:02 | | 06.26.2020 12:03 | | 06.26.2020 13:30 | | 06.26.2020 13:35 | | 06.26.2020 13:40 | |
| **Chloride by EPA 300** | ***Extracted:*** | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | |
| | ***Analyzed:*** | 07.02.2020 22:39 | | 07.02.2020 22:44 | | 07.02.2020 22:49 | | 07.02.2020 22:55 | | 07.02.2020 23:10 | | 07.02.2020 23:15 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 421 | 4.95 | 465 | 5.04 | 617 | 4.96 | 881 | 5.00 | 554 | 5.03 | 953 | 4.98 |

BRL - Below Reporting Limit

Holly Taylor

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# Certificate of Analysis Summary 666164

## Larson and Associates, Inc., Midland, TX

### Project Name: Cukbre Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu 07.02.2020 08:21
**Report Date:** 07.09.2020 13:46
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 666164-013 | | 666164-014 | | 666164-015 | | 666164-016 | | 666164-017 | | 666164-018 | |
| | ***Field Id:*** | BH-1 35' | | BH-1 40' | | BH-1 45' | | BH-1 50' | | BH-1 55' | | BH-1 60' | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | 06.26.2020 13:45 | | 06.26.2020 13:50 | | 06.26.2020 13:55 | | 06.26.2020 14:00 | | 06.26.2020 14:05 | | 06.26.2020 14:10 | |
| **Chloride by EPA 300** | ***Extracted:*** | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | |
| | ***Analyzed:*** | 07.02.2020 23:20 | | 07.02.2020 23:25 | | 07.02.2020 23:30 | | 07.02.2020 23:35 | | 07.02.2020 23:50 | | 07.02.2020 23:55 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 346 | 5.02 | 432 | 4.96 | 467 | 5.00 | 458 | 5.04 | 556 | 4.97 | 680 | 4.96 |

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor

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# Certificate of Analysis Summary 666164

## Larson and Associates, Inc., Midland, TX

### Project Name: Cukbre Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu 07.02.2020 08:21
**Report Date:** 07.09.2020 13:46
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 666164-019 | | 666164-020 | | 666164-021 | | 666164-022 | | 666164-023 | | 666164-024 | |
| | ***Field Id:*** | BH-3 20' | | BH-3 25' | | BH-3 30' | | BH-3 35' | | BH-3 40' | | BH-4 20' | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | 06.29.2020 11:25 | | 06.29.2020 11:30 | | 06.29.2020 11:32 | | 06.29.2020 11:34 | | 06.29.2020 11:36 | | 06.29.2020 12:54 | |
| **Chloride by EPA 300** | ***Extracted:*** | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | | 07.02.2020 14:35 | |
| | ***Analyzed:*** | 07.03.2020 00:10 | | 07.03.2020 00:16 | | 07.03.2020 00:21 | | 07.03.2020 00:26 | | 07.03.2020 00:31 | | 07.03.2020 00:36 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 396 | 5.03 | 307 | 4.96 | 274 | 5.00 | 370 | 4.98 | 265 | 4.99 | 711 | 5.02 |

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Holly Taylor

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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# Certificate of Analysis Summary 666164

## Larson and Associates, Inc., Midland, TX

### Project Name: Cukbre Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu 07.02.2020 08:21
**Report Date:** 07.09.2020 13:46
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 666164-025 | | 666164-026 | | 666164-027 | | 666164-028 | | 666164-029 | | 666164-030 | |
| | ***Field Id:*** | BH-4 25' | | BH-4 30' | | BH-5 20' | | BH-5 25' | | BH-5 30' | | BH-6 20' | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | 06.29.2020 12:57 | | 06.29.2020 13:00 | | 06.29.2020 13:25 | | 06.29.2020 13:30 | | 06.29.2020 13:32 | | 06.29.2020 13:55 | |
| **Chloride by EPA 300** | ***Extracted:*** | 07.02.2020 14:35 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | |
| | ***Analyzed:*** | 07.03.2020 00:41 | | 07.03.2020 01:11 | | 07.03.2020 01:26 | | 07.03.2020 01:31 | | 07.03.2020 01:36 | | 07.03.2020 01:41 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 300 | 4.99 | 389 | 4.98 | 1550 | 25.2 | 331 | 4.96 | 369 | 4.99 | 794 | 5.00 |

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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# Certificate of Analysis Summary 666164

## Larson and Associates, Inc., Midland, TX

### Project Name: Cukbre Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu 07.02.2020 08:21
**Report Date:** 07.09.2020 13:46
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 666164-031 | | 666164-032 | | 666164-033 | | 666164-034 | | 666164-035 | | 666164-036 | |
| | ***Field Id:*** | BH-6 25' | | BH-6 30' | | BH-7 20' | | BH-7 25' | | BH-7 30' | | BH-8 20' | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | 06.29.2020 14:00 | | 06.29.2020 14:03 | | 06.29.2020 14:25 | | 06.29.2020 14:33 | | 06.29.2020 14:35 | | 06.29.2020 14:55 | |
| **Chloride by EPA 300** | ***Extracted:*** | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | |
| | ***Analyzed:*** | 07.03.2020 01:57 | | 07.03.2020 02:02 | | 07.03.2020 02:07 | | 07.03.2020 02:12 | | 07.03.2020 02:17 | | 07.03.2020 02:22 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 428 | 5.04 | 242 | 5.05 | 915 | 5.05 | 1340 | 5.05 | 198 | 4.99 | 1160 X | 5.00 |

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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# Certificate of Analysis Summary 666164

## Larson and Associates, Inc., Midland, TX

### Project Name: Cukbre Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu 07.02.2020 08:21
**Report Date:** 07.09.2020 13:46
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 666164-037 | | 666164-038 | | 666164-039 | | 666164-040 | | 666164-041 | | 666164-042 | |
| | ***Field Id:*** | BH-8 25' | | BH-8 30' | | BH-9 20' | | BH-9 25' | | BH-9 30' | | BH-10 20' | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | 06.29.2020 15:00 | | 06.29.2020 15:05 | | 06.30.2020 09:20 | | 06.30.2020 09:25 | | 06.30.2020 09:30 | | 06.30.2020 10:00 | |
| **Chloride by EPA 300** | ***Extracted:*** | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | |
| | ***Analyzed:*** | 07.03.2020 02:37 | | 07.03.2020 02:42 | | 07.03.2020 02:57 | | 07.03.2020 03:02 | | 07.03.2020 03:07 | | 07.03.2020 03:12 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 247 | 5.04 | 198 | 4.98 | 900 | 4.96 | 332 | 5.00 | 397 | 5.04 | 1230 | 5.01 |

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Holly Taylor

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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# Certificate of Analysis Summary 666164

## Larson and Associates, Inc., Midland, TX

### Project Name: Cukbre Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu 07.02.2020 08:21
**Report Date:** 07.09.2020 13:46
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 666164-043 | | 666164-044 | | 666164-045 | | 666164-046 | | 666164-047 | | 666164-048 | |
| | ***Field Id:*** | BH-10 25' | | BH-10 30' | | BH-11 20' | | BH-11 25' | | BH-11 30' | | BH-12 20' | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | 06.30.2020 10:05 | | 06.30.2020 10:10 | | 06.30.2020 10:40 | | 06.30.2020 10:45 | | 06.30.2020 10:50 | | 06.30.2020 11:10 | |
| **Chloride by EPA 300** | ***Extracted:*** | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.02.2020 14:45 | | 07.06.2020 16:30 | | 07.06.2020 16:30 | | 07.06.2020 16:30 | |
| | ***Analyzed:*** | 07.03.2020 03:17 | | 07.03.2020 03:22 | | 07.03.2020 03:28 | | 07.06.2020 22:24 | | 07.06.2020 22:30 | | 07.06.2020 22:37 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 655 | 4.96 | 833 | 4.98 | 1170 | 5.00 | 826 | 25.0 | 749 | 4.99 | 1630 | 24.8 |

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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# Certificate of Analysis Summary 666164

## Larson and Associates, Inc., Midland, TX

### Project Name: Cukbre Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Thu 07.02.2020 08:21
**Report Date:** 07.09.2020 13:46
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 666164-049 | | 666164-050 | | 666164-051 | | 666164-052 | | 666164-053 | |
| | ***Field Id:*** | BH-12 25' | | BH-12 30' | | BH-13 20' | | BH-13 25' | | BH-13 30' | |
| | ***Depth:*** | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | 06.30.2020 11:15 | | 06.30.2020 11:20 | | 06.26.2020 11:40 | | 06.26.2020 11:45 | | 06.26.2020 11:50 | |
| **Chloride by EPA 300** | ***Extracted:*** | 07.06.2020 16:30 | | 07.06.2020 16:30 | | 07.06.2020 16:30 | | 07.06.2020 16:30 | | 07.06.2020 17:00 | |
| | ***Analyzed:*** | 07.06.2020 22:43 | | 07.06.2020 19:58 | | 07.06.2020 22:49 | | 07.06.2020 21:27 | | 07.06.2020 20:46 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 270 | 4.98 | 295 | 5.03 | 1200 | 5.02 | 224 | 5.00 | 350 | 5.05 |

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Holly Taylor

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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# Analytical Report 666164

## for

## Larson and Associates, Inc.

**Project Manager: Mark Larson**

**Cukbre Bluff**

**19-0180-07**

**07.09.2020**

Collected By: Client

**1211 W. Florida Ave**
**Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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07.09.2020

Project Manager: **Mark Larson**
**Larson and Associates, Inc.**
P. O. Box 50685
Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **666164**
**Cukbre Bluff**
Project Address:

**Mark Larson**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 666164. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 666164 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

**Holly Taylor**
Project Manager

*A Small Business and Minority Company*

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# Sample Cross Reference 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---|---|---|---|---|
| BH-2 20' | S | 06.26.2020 12:30 | | 666164-001 |
| BH-2 25' | S | 06.26.2020 12:35 | | 666164-002 |
| BH-2 30' | S | 06.26.2020 12:40 | | 666164-003 |
| BH-2 35' | S | 06.26.2020 12:45 | | 666164-004 |
| BH-2 40' | S | 06.26.2020 12:50 | | 666164-005 |
| BH-2 45' | S | 06.26.2020 12:55 | | 666164-006 |
| BH-2 50' | S | 06.26.2020 12:00 | | 666164-007 |
| BH-2 55' | S | 06.26.2020 12:02 | | 666164-008 |
| BH-2 60' | S | 06.26.2020 12:03 | | 666164-009 |
| BH-1 20' | S | 06.26.2020 13:30 | | 666164-010 |
| BH-1 25' | S | 06.26.2020 13:35 | | 666164-011 |
| BH-1 30' | S | 06.26.2020 13:40 | | 666164-012 |
| BH-1 35' | S | 06.26.2020 13:45 | | 666164-013 |
| BH-1 40' | S | 06.26.2020 13:50 | | 666164-014 |
| BH-1 45' | S | 06.26.2020 13:55 | | 666164-015 |
| BH-1 50' | S | 06.26.2020 14:00 | | 666164-016 |
| BH-1 55' | S | 06.26.2020 14:05 | | 666164-017 |
| BH-1 60' | S | 06.26.2020 14:10 | | 666164-018 |
| BH-3 20' | S | 06.29.2020 11:25 | | 666164-019 |
| BH-3 25' | S | 06.29.2020 11:30 | | 666164-020 |
| BH-3 30' | S | 06.29.2020 11:32 | | 666164-021 |
| BH-3 35' | S | 06.29.2020 11:34 | | 666164-022 |
| BH-3 40' | S | 06.29.2020 11:36 | | 666164-023 |
| BH-4 20' | S | 06.29.2020 12:54 | | 666164-024 |
| BH-4 25' | S | 06.29.2020 12:57 | | 666164-025 |
| BH-4 30' | S | 06.29.2020 13:00 | | 666164-026 |
| BH-5 20' | S | 06.29.2020 13:25 | | 666164-027 |
| BH-5 25' | S | 06.29.2020 13:30 | | 666164-028 |
| BH-5 30' | S | 06.29.2020 13:32 | | 666164-029 |
| BH-6 20' | S | 06.29.2020 13:55 | | 666164-030 |
| BH-6 25' | S | 06.29.2020 14:00 | | 666164-031 |
| BH-6 30' | S | 06.29.2020 14:03 | | 666164-032 |
| BH-7 20' | S | 06.29.2020 14:25 | | 666164-033 |
| BH-7 25' | S | 06.29.2020 14:33 | | 666164-034 |
| BH-7 30' | S | 06.29.2020 14:35 | | 666164-035 |
| BH-8 20' | S | 06.29.2020 14:55 | | 666164-036 |
| BH-8 25' | S | 06.29.2020 15:00 | | 666164-037 |
| BH-8 30' | S | 06.29.2020 15:05 | | 666164-038 |
| BH-9 20' | S | 06.30.2020 09:20 | | 666164-039 |
| BH-9 25' | S | 06.30.2020 09:25 | | 666164-040 |
| BH-9 30' | S | 06.30.2020 09:30 | | 666164-041 |
| BH-10 20' | S | 06.30.2020 10:00 | | 666164-042 |
| BH-10 25' | S | 06.30.2020 10:05 | | 666164-043 |

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# Sample Cross Reference 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | |
|---|---|---|---|
| BH-10 30' | S | 06.30.2020 10:10 | 666164-044 |
| BH-11 20' | S | 06.30.2020 10:40 | 666164-045 |
| BH-11 25' | S | 06.30.2020 10:45 | 666164-046 |
| BH-11 30' | S | 06.30.2020 10:50 | 666164-047 |
| BH-12 20' | S | 06.30.2020 11:10 | 666164-048 |
| BH-12 25' | S | 06.30.2020 11:15 | 666164-049 |
| BH-12 30' | S | 06.30.2020 11:20 | 666164-050 |
| BH-13 20' | S | 06.26.2020 11:40 | 666164-051 |
| BH-13 25' | S | 06.26.2020 11:45 | 666164-052 |
| BH-13 30' | S | 06.26.2020 11:50 | 666164-053 |

# CASE NARRATIVE



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***Client Name: Larson and Associates, Inc.***

***Project Name: Cukbre Bluff***

Project ID: *19-0180-07*
Work Order Number(s): *666164*

Report Date: *07.09.2020*
Date Received: *07.02.2020*

**Sample receipt non conformances and comments:**

**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3130773 Chloride by EPA 300

Lab Sample ID 666164-016 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 666164-006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022, -023, -024, -025.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3130779 Chloride by EPA 300

Lab Sample ID 666164-036 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 666164-026, -027, -028, -029, -030, -031, -032, -033, -034, -035, -036, -037, -038, -039, -040, -041, -042, -043, -044, -045.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-001 | Date Collected: | 06.26.2020 12:30 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 13:55 | Basis: | Wet Weight |
| Seq Number: | 3130770 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **923** | 4.96 | mg/kg | 07.02.2020 21:34 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-002 | Date Collected: | 06.26.2020 12:35 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 13:55 | Basis: | Wet Weight |
| Seq Number: | 3130770 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **387** | 4.98 | mg/kg | 07.02.2020 21:39 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-003 | Date Collected: | 06.26.2020 12:40 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 13:55 | Basis: | Wet Weight |
| Seq Number: | 3130770 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **542** | 5.00 | mg/kg | 07.02.2020 21:44 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2 35'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-004 | Date Collected: | 06.26.2020 12:45 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 13:55 | Basis: | Wet Weight |
| Seq Number: | 3130770 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **419** | 5.00 | mg/kg | 07.02.2020 21:49 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2 40'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-005 | Date Collected: | 06.26.2020 12:50 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 13:55 | Basis: | Wet Weight |
| Seq Number: | 3130770 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **432** | 5.00 | mg/kg | 07.02.2020 21:54 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2 45'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-006 | Date Collected: | 06.26.2020 12:55 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **373** | 4.98 | mg/kg | 07.02.2020 22:24 | X | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2 50'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-007 | Date Collected: | 06.26.2020 12:00 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **421** | 4.95 | mg/kg | 07.02.2020 22:39 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2 55'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-008 | Date Collected: | 06.26.2020 12:02 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **465** | 5.04 | mg/kg | 07.02.2020 22:44 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2 60'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-009 | Date Collected: | 06.26.2020 12:03 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **617** | 4.96 | mg/kg | 07.02.2020 22:49 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-1 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-010 | Date Collected: | 06.26.2020 13:30 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **881** | 5.00 | mg/kg | 07.02.2020 22:55 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-1 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-011 | Date Collected: | 06.26.2020 13:35 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **554** | 5.03 | mg/kg | 07.02.2020 23:10 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-1 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-012 | Date Collected: | 06.26.2020 13:40 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **953** | 4.98 | mg/kg | 07.02.2020 23:15 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-1 35'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-013 | Date Collected: | 06.26.2020 13:45 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **346** | 5.02 | mg/kg | 07.02.2020 23:20 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-1 40'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-014 | Date Collected: | 06.26.2020 13:50 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **432** | 4.96 | mg/kg | 07.02.2020 23:25 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-1 45'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-015 | Date Collected: | 06.26.2020 13:55 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **467** | 5.00 | mg/kg | 07.02.2020 23:30 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-1 50'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-016 | Date Collected: | 06.26.2020 14:00 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **458** | 5.04 | mg/kg | 07.02.2020 23:35 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-1 55'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-017 | Date Collected: | 06.26.2020 14:05 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **556** | 4.97 | mg/kg | 07.02.2020 23:50 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-1 60'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-018 | Date Collected: | 06.26.2020 14:10 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **680** | 4.96 | mg/kg | 07.02.2020 23:55 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-3 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-019 | Date Collected: | 06.29.2020 11:25 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **396** | 5.03 | mg/kg | 07.03.2020 00:10 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-3 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-020 | Date Collected: | 06.29.2020 11:30 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **307** | 4.96 | mg/kg | 07.03.2020 00:16 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-3 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-021 | Date Collected: | 06.29.2020 11:32 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **274** | 5.00 | mg/kg | 07.03.2020 00:21 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-3 35'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-022 | Date Collected: | 06.29.2020 11:34 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **370** | 4.98 | mg/kg | 07.03.2020 00:26 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-3 40'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-023 | Date Collected: | 06.29.2020 11:36 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **265** | 4.99 | mg/kg | 07.03.2020 00:31 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-4 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-024 | Date Collected: | 06.29.2020 12:54 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **711** | 5.02 | mg/kg | 07.03.2020 00:36 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-4 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-025 | Date Collected: | 06.29.2020 12:57 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:35 | Basis: | Wet Weight |
| Seq Number: | 3130773 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **300** | 4.99 | mg/kg | 07.03.2020 00:41 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-4 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-026 | Date Collected: | 06.29.2020 13:00 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **389** | 4.98 | mg/kg | 07.03.2020 01:11 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-5 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-027 | Date Collected: | 06.29.2020 13:25 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1550** | 25.2 | mg/kg | 07.03.2020 01:26 | | 5 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-5 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-028 | Date Collected: | 06.29.2020 13:30 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **331** | 4.96 | mg/kg | 07.03.2020 01:31 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-5 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-029 | Date Collected: | 06.29.2020 13:32 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **369** | 4.99 | mg/kg | 07.03.2020 01:36 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-6 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-030 | Date Collected: | 06.29.2020 13:55 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **794** | 5.00 | mg/kg | 07.03.2020 01:41 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-6 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-031 | Date Collected: | 06.29.2020 14:00 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **428** | 5.04 | mg/kg | 07.03.2020 01:57 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-6 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-032 | Date Collected: | 06.29.2020 14:03 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **242** | 5.05 | mg/kg | 07.03.2020 02:02 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-7 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-033 | Date Collected: | 06.29.2020 14:25 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **915** | 5.05 | mg/kg | 07.03.2020 02:07 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-7 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-034 | Date Collected: | 06.29.2020 14:33 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1340** | 5.05 | mg/kg | 07.03.2020 02:12 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-7 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-035 | Date Collected: | 06.29.2020 14:35 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **198** | 4.99 | mg/kg | 07.03.2020 02:17 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-8 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-036 | Date Collected: | 06.29.2020 14:55 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1160** | 5.00 | mg/kg | 07.03.2020 02:22 | X | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-8 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-037 | Date Collected: | 06.29.2020 15:00 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **247** | 5.04 | mg/kg | 07.03.2020 02:37 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-8 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-038 | Date Collected: | 06.29.2020 15:05 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **198** | 4.98 | mg/kg | 07.03.2020 02:42 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-9 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-039 | Date Collected: | 06.30.2020 09:20 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **900** | 4.96 | mg/kg | 07.03.2020 02:57 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-9 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-040 | Date Collected: | 06.30.2020 09:25 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **332** | 5.00 | mg/kg | 07.03.2020 03:02 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-9 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-041 | Date Collected: | 06.30.2020 09:30 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **397** | 5.04 | mg/kg | 07.03.2020 03:07 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-10 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-042 | Date Collected: | 06.30.2020 10:00 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1230** | 5.01 | mg/kg | 07.03.2020 03:12 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-10 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-043 | Date Collected: | 06.30.2020 10:05 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **655** | 4.96 | mg/kg | 07.03.2020 03:17 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-10 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-044 | Date Collected: | 06.30.2020 10:10 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **833** | 4.98 | mg/kg | 07.03.2020 03:22 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-11 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-045 | Date Collected: | 06.30.2020 10:40 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.02.2020 14:45 | Basis: | Wet Weight |
| Seq Number: | 3130779 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1170** | 5.00 | mg/kg | 07.03.2020 03:28 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-11 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-046 | Date Collected: | 06.30.2020 10:45 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.06.2020 16:30 | Basis: | Wet Weight |
| Seq Number: | 3130870 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **826** | 25.0 | mg/kg | 07.06.2020 22:24 | | 5 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-11 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-047 | Date Collected: | 06.30.2020 10:50 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.06.2020 16:30 | Basis: | Wet Weight |
| Seq Number: | 3130870 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **749** | 4.99 | mg/kg | 07.06.2020 22:30 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-12 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-048 | Date Collected: | 06.30.2020 11:10 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.06.2020 16:30 | Basis: | Wet Weight |
| Seq Number: | 3130870 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1630** | 24.8 | mg/kg | 07.06.2020 22:37 | | 5 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-12 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-049 | Date Collected: | 06.30.2020 11:15 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.06.2020 16:30 | Basis: | Wet Weight |
| Seq Number: | 3130870 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **270** | 4.98 | mg/kg | 07.06.2020 22:43 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-12 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-050 | Date Collected: | 06.30.2020 11:20 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.06.2020 16:30 | Basis: | Wet Weight |
| Seq Number: | 3130870 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **295** | 5.03 | mg/kg | 07.06.2020 19:58 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-13 20'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-051 | Date Collected: | 06.26.2020 11:40 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.06.2020 16:30 | Basis: | Wet Weight |
| Seq Number: | 3130870 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **1200** | 5.02 | mg/kg | 07.06.2020 22:49 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-13 25'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-052 | Date Collected: | 06.26.2020 11:45 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.06.2020 16:30 | Basis: | Wet Weight |
| Seq Number: | 3130870 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **224** | 5.00 | mg/kg | 07.06.2020 21:27 | | 1 |

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# Certificate of Analytical Results 666164

## Larson and Associates, Inc., Midland, TX

Cukbre Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-13 30'** | Matrix: | Soil | Date Received: | 07.02.2020 08:21 |
| Lab Sample Id: | 666164-053 | Date Collected: | 06.26.2020 11:50 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | % Moisture: | |
| Analyst: | CHE | Date Prep: | 07.06.2020 17:00 | Basis: | Wet Weight |
| Seq Number: | 3130872 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **350** | 5.05 | mg/kg | 07.06.2020 20:46 | | 1 |

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# Flagging Criteria

**X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

**B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

**D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

**E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

**F** RPD exceeded lab control limits.

**J** The target analyte was positively identified below the quantitation limit and above the detection limit.

**U** Analyte was not detected.

**L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

**H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

**K** Sample analyzed outside of recommended hold time.

**JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit. **ND** Not Detected.

**RL** Reporting Limit

**MDL** Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

**PQL** Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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# QC Summary 666164



## Larson and Associates, Inc.

Cukbre Bluff

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130770 — Matrix: Solid — Date Prep: 07.02.2020
MB Sample Id: 7706695-1-BLK — LCS Sample Id: 7706695-1-BKS — LCSD Sample Id: 7706695-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 226 | 90 | 247 | 99 | 90-110 | 9 | 20 | mg/kg | 07.02.2020 19:27 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130773 — Matrix: Solid — Date Prep: 07.02.2020
MB Sample Id: 7706696-1-BLK — LCS Sample Id: 7706696-1-BKS — LCSD Sample Id: 7706696-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 236 | 94 | 227 | 91 | 90-110 | 4 | 20 | mg/kg | 07.02.2020 22:14 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130779 — Matrix: Solid — Date Prep: 07.02.2020
MB Sample Id: 7706697-1-BLK — LCS Sample Id: 7706697-1-BKS — LCSD Sample Id: 7706697-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 258 | 103 | 255 | 102 | 90-110 | 1 | 20 | mg/kg | 07.03.2020 01:01 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130870 — Matrix: Solid — Date Prep: 07.06.2020
MB Sample Id: 7706807-1-BLK — LCS Sample Id: 7706807-1-BKS — LCSD Sample Id: 7706807-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 236 | 94 | 236 | 94 | 90-110 | 0 | 20 | mg/kg | 07.06.2020 19:45 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130872 — Matrix: Solid — Date Prep: 07.06.2020
MB Sample Id: 7706808-1-BLK — LCS Sample Id: 7706808-1-BKS — LCSD Sample Id: 7706808-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 256 | 102 | 257 | 103 | 90-110 | 0 | 20 | mg/kg | 07.06.2020 20:36 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130770 — Matrix: Soil — Date Prep: 07.02.2020
Parent Sample Id: 666004-003 — MS Sample Id: 666004-003 S — MSD Sample Id: 666004-003 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 16.9 | 250 | 288 | 108 | 289 | 109 | 90-110 | 0 | 20 | mg/kg | 07.02.2020 19:42 | |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

eurofins | Xenco

# QC Summary 666164



## Larson and Associates, Inc.

Cukbre Bluff

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130770 — Matrix: Soil — Date Prep: 07.02.2020
Parent Sample Id: 666117-001 — MS Sample Id: 666117-001 S — MSD Sample Id: 666117-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 172 | 264 | 424 | 95 | 407 | 89 | 90-110 | 4 | 20 | mg/kg | 07.02.2020 20:53 | X |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130773 — Matrix: Soil — Date Prep: 07.02.2020
Parent Sample Id: 666164-006 — MS Sample Id: 666164-006 S — MSD Sample Id: 666164-006 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 373 | 249 | 585 | 85 | 646 | 110 | 90-110 | 10 | 20 | mg/kg | 07.02.2020 22:29 | X |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130773 — Matrix: Soil — Date Prep: 07.02.2020
Parent Sample Id: 666164-016 — MS Sample Id: 666164-016 S — MSD Sample Id: 666164-016 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 458 | 252 | 687 | 91 | 705 | 98 | 90-110 | 3 | 20 | mg/kg | 07.02.2020 23:40 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130779 — Matrix: Soil — Date Prep: 07.02.2020
Parent Sample Id: 666164-026 — MS Sample Id: 666164-026 S — MSD Sample Id: 666164-026 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 389 | 249 | 625 | 95 | 643 | 102 | 90-110 | 3 | 20 | mg/kg | 07.03.2020 01:16 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130779 — Matrix: Soil — Date Prep: 07.02.2020
Parent Sample Id: 666164-036 — MS Sample Id: 666164-036 S — MSD Sample Id: 666164-036 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1160 | 250 | 1360 | 80 | 1350 | 76 | 90-110 | 1 | 20 | mg/kg | 07.03.2020 02:27 | X |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130870 — Matrix: Soil — Date Prep: 07.06.2020
Parent Sample Id: 666164-050 — MS Sample Id: 666164-050 S — MSD Sample Id: 666164-050 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 295 | 252 | 551 | 102 | 540 | 97 | 90-110 | 2 | 20 | mg/kg | 07.06.2020 20:04 | |

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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# QC Summary 666164



## Larson and Associates, Inc.

Cukbre Bluff

**Analytical Method:** **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3130870 Matrix: Soil Date Prep: 07.06.2020
Parent Sample Id: 666164-052 MS Sample Id: 666164-052 S MSD Sample Id: 666164-052 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 224 | 250 | 470 | 98 | 466 | 97 | 90-110 | 1 | 20 | mg/kg | 07.06.2020 21:33 | |

**Analytical Method:** **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3130872 Matrix: Soil Date Prep: 07.06.2020
Parent Sample Id: 666164-053 MS Sample Id: 666164-053 S MSD Sample Id: 666164-053 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 350 | 253 | 600 | 99 | 603 | 100 | 90-110 | 0 | 20 | mg/kg | 07.06.2020 20:51 | |

**Analytical Method:** **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3130872 Matrix: Soil Date Prep: 07.06.2020
Parent Sample Id: 666230-004 MS Sample Id: 666230-004 S MSD Sample Id: 666230-004 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 10.9 | 248 | 278 | 108 | 278 | 108 | 90-110 | 0 | 20 | mg/kg | 07.06.2020 22:02 | |

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Final 1.000

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№1190

L0606164

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 6/26/20 PAGE 1 OF 4

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Cukbre Bluff

LAI PROJECT #: 19-0180-07 COLLECTOR: JJ

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TBLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BH-2 20' | | 6-26-20 | 1230 | S | 1 | | | | | | X | |
| BH-2 25' | | | 12 35 | | | | | | | | | |
| BH-2 30' | | | 12 40 | | | | | | | | | |
| BH-2 35' | | | 12 45 | | | | | | | | | |
| BH-2 40' | | | 12 50 | | | | | | | | | |
| BH-2 45' | | | 12 55 | | | | | | | | | |
| BH-2 50' | | | 12 00 | | | | | | | | | |
| BH-2 55' | | | 12 02 | | | | | | | | | |
| BH-2 60' | | | 12 03 | | | | | | | | | |
| BH-1 20' | | | 13 30 | | | | | | | | | |
| BH-1 25' | | | 13 35 | | | | | | | | | |
| BH-1 30' | | | 13 40 | | | | | | | | | |
| BH-1 35' | | | 13 45 | | | | | | | | | |
| BH-1 40' | | | 13 50 | | | | | | | | | |
| BH-1 45' | | | 13 55 | | | | | | | | | |

TOTAL 15

| | | |
|---|---|---|
| RELINQUISHED BY:(Signature) Jaime Jaime | DATE/TIME 7/2/20 EDT | 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: 26.8/26.4 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:27:21 PM
Final 1.000
Page 72 of 76

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6/26/20

№1191

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 6/26/20 PAGE 2 OF 4

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Cutlek Bluff

LAI PROJECT #: COLLECTOR: TJ

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TBLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~~6/26/20~~ | | | ~~6/26/20~~ | | | | | | | | | |
| BH-1 50' | | 6/26/20 | 1400 | S | 1 | | | | | | X | |
| BH-1 55' | | " | 1405 | " | " | | | | | | " | |
| BH-1 60' | | " | 1410 | " | " | | | | | | " | |
| BH-3 20' | | 6/29/20 | 1125 | " | " | | | | | | " | |
| BH-3 25' | | " | 1130 | " | " | | | | | | " | |
| BH-3 30' | | " | 1132 | " | " | | | | | | " | |
| BH-3 35' | | " | 1134 | " | " | | | | | | " | |
| BH-3 40' | | " | 1136 | " | " | | | | | | " | |
| BH-4 20' | | " | 1254 | " | " | | | | | | " | |
| BH-4 25' | | " | 1257 | " | " | | | | | | " | |
| BH-4 30' | | " | 1300 | " | " | | | | | | " | |
| ~~BH-4 35'~~ | | | | | | | | | | | | |
| ~~BH-4 40'~~ | | | | | | | | | | | | |

TOTAL 11

RELINQUISHED BY:(Signature) Trent Jam DATE/TIME 7/1 921 RECEIVED BY: (Signature) PSW

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: 26/4/26/4 THERM#: TR5
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:21:21 PM
Final 1.000
Page 73 of 76

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6/6/24

№1192

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 6/29/30 PAGE 3 OF 4

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Culebra Bluff

LAI PROJECT #: 19-0180-07 COLLECTOR: TJ

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR 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 ☐ | TBLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDES ☐ ANIONS ☐ ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BH-5 20' | | 6/29/20 | 1325 | S | 1 | | | | | | | | | | | | | | | | | | | | | | | X | | |
| BH-5 25' | | | 1330 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-5 30' | | | 1332 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-6 20' | | | 1355 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-6 25' | | | 1400 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-6 30' | | | 1403 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-7 20' | | | 1425 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-7 25' | | | 1433 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-7 30' | | | 1435 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-8 20' | | | 1455 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-8 25' | | | 1500 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-8 30' | | | 1505 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

TOTAL 12

| RELINQUISHED BY:(Signature) | DATE/TIME | RECEIVED BY: (Signature) |
|---|---|---|
| Trent Dalton | 7/1 821 | |
| 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: 26.0/26.4 THERM#: JV6
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Final 1.000
Page 74 of 76
Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:21:21 PM

Page 376 of 1002

Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:27:21 PM

Final 1.000

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Nº 1193

6/6/6/164

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 6/30/20 PAGE 4 OF 4

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: CULBERSON BLUFF

LAI PROJECT #: 19-0180-07 COLLECTOR: TS + DS

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BH-9 20' | | 6/30/20 | 0920 | S | 1 | | | | | | X | |
| BH-9 25' | | | 0925 | | | | | | | | | |
| BH-9 30' | | | 0930 | | | | | | | | | |
| BH-10 20' | | | 1000 | | | | | | | | | |
| BH-10 25' | | | 1005 | | | | | | | | | |
| BH-10 30' | | | 1010 | | | | | | | | | |
| BH-11 20' | | | 1040 | | | | | | | | | |
| BH-11 25' | | | 1045 | | | | | | | | | |
| BH-11 30' | | | 1050 | | | | | | | | | |
| BH-12 20' | | | 1110 | | | | | | | | | |
| BH-12 25' | | | 1115 | | | | | | | | | |
| BH-12 30' | | | 1120 | | | | | | | | | |
| BH-13 20' | | | 1140 | | | | | | | | | |
| BH-13 25' | | | 1145 | | | | | | | | | |
| BH-13 30' | | | 1150 | | | | | | | | | |

TOTAL 15

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

RELINQUISHED BY:(Signature) Trent Sam DATE/TIME 6/30/20 7:11 RECEIVED BY: (Signature) Rob

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: 26.9/24.4 °C THERM#: IR-8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

# Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

**Client:** Larson and Associates, Inc.

**Date/ Time Received:** 07.02.2020 08.21.00 AM

**Work Order #:** 666164

**Acceptable Temperature Range: 0 - 6 degC**
**Air and Metal samples Acceptable Range: Ambient**

**Temperature Measuring device used : IR-8**

| Sample Receipt Checklist | Comments |
|---|---|
| #1 *Temperature of cooler(s)? | 26.4 |
| #2 *Shipping container in good condition? | **Yes** |
| #3 *Samples received on ice? | **No** |
| #4 *Custody Seals intact on shipping container/ cooler? | **N/A** |
| #5 Custody Seals intact on sample bottles? | **N/A** |
| #6*Custody Seals Signed and dated? | **N/A** |
| #7 *Chain of Custody present? | **Yes** |
| #8 Any missing/extra samples? | **No** |
| #9 Chain of Custody signed when relinquished/ received? | **Yes** |
| #10 Chain of Custody agrees with sample labels/matrix? | **Yes** |
| #11 Container label(s) legible and intact? | **Yes** |
| #12 Samples in proper container/ bottle? | **Yes** |
| #13 Samples properly preserved? | **Yes** |
| #14 Sample container(s) intact? | **Yes** |
| #15 Sufficient sample amount for indicated test(s)? | **Yes** |
| #16 All samples received within hold time? | **Yes** |
| #17 Subcontract of sample(s)? | **N/A** |
| #18 Water VOC samples have zero headspace? | **N/A** |

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

**Checklist completed by:** Brianna Teel Date: 07.02.2020

Brianna Teel

**Checklist reviewed by:** Holly Taylor Date: 07.02.2020

Holly Taylor

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# Certificate of Analysis Summary 687929

## Larson and Associates, Inc., Midland, TX

### Project Name: Culebra Bluff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Wed 02.10.2021 09:03
**Report Date:** 02.18.2021 15:37
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 687929-001 | | 687929-002 | | 687929-003 | | 687929-004 | | | | | |
| | ***Field Id:*** | BH-2, 65' | | BH-1, 65' | | BH-10,35' | | BH-11, 35' | | | | | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | | | | |
| | ***Sampled:*** | 02.09.2021 12:23 | | 02.09.2021 13:21 | | 02.09.2021 14:11 | | 02.09.2021 14:54 | | | | | |
| **Chloride by EPA 300** | ***Extracted:*** | 02.12.2021 08:50 | | 02.12.2021 08:50 | | 02.12.2021 08:50 | | 02.12.2021 08:50 | | | | | |
| | ***Analyzed:*** | 02.13.2021 00:16 | | 02.13.2021 00:21 | | 02.13.2021 00:27 | | 02.13.2021 00:32 | | | | | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | | | | |
| Chloride | | 601 | 4.98 | 531 | 5.02 | 375 | 5.05 | 354 X | 5.00 | | | | |

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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# Analytical Report 687929

## for

## Larson and Associates, Inc.

**Project Manager: Mark Larson**

**Culebra Bluff**

**19-0180-07**

**02.18.2021**

Collected By: Client

**1211 W. Florida Ave**
**Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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02.18.2021

Project Manager: **Mark Larson**
**Larson and Associates, Inc.**
P. O. Box 50685
Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **687929**
**Culebra Bluff**
Project Address:

**Mark Larson**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 687929. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 687929 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

**Holly Taylor**
Project Manager

*A Small Business and Minority Company*

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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# Sample Cross Reference 687929

## Larson and Associates, Inc., Midland, TX

Culebra Bluff

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---|---|---|---|---|
| BH-2, 65' | S | 02.09.2021 12:23 | | 687929-001 |
| BH-1, 65' | S | 02.09.2021 13:21 | | 687929-002 |
| BH-10,35' | S | 02.09.2021 14:11 | | 687929-003 |
| BH-11, 35' | S | 02.09.2021 14:54 | | 687929-004 |

# CASE NARRATIVE



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***Client Name: Larson and Associates, Inc.***

***Project Name: Culebra Bluff***

Project ID: *19-0180-07*
Work Order Number(s): *687929*

Report Date: *02.18.2021*
Date Received: *02.10.2021*

**Sample receipt non conformances and comments:**

**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3151037 Chloride by EPA 300

Lab Sample ID 687929-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 687929-001, -002, -003, -004.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

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# Certificate of Analytical Results 687929

## Larson and Associates, Inc., Midland, TX

Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2, 65'** | Matrix: | Soil | Date Received: | 02.10.2021 09:03 |
| Lab Sample Id: | 687929-001 | Date Collected: | 02.09.2021 12:23 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | | |
| Analyst: | CHE | Date Prep: | 02.12.2021 08:50 | % Moisture: | |
| Seq Number: | 3151037 | | | Basis: | Wet Weight |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **601** | 4.98 | mg/kg | 02.13.2021 00:16 | | 1 |

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# Certificate of Analytical Results 687929

## Larson and Associates, Inc., Midland, TX

Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-1, 65'** | Matrix: | Soil | Date Received: | 02.10.2021 09:03 |
| Lab Sample Id: | 687929-002 | Date Collected: | 02.09.2021 13:21 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | | |
| Analyst: | CHE | Date Prep: | 02.12.2021 08:50 | % Moisture: | |
| Seq Number: | 3151037 | | | Basis: | Wet Weight |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **531** | 5.02 | mg/kg | 02.13.2021 00:21 | | 1 |

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# Certificate of Analytical Results 687929

## Larson and Associates, Inc., Midland, TX

Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-10,35'** | Matrix: | Soil | Date Received: | 02.10.2021 09:03 |
| Lab Sample Id: | 687929-003 | Date Collected: | 02.09.2021 14:11 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | | |
| Analyst: | CHE | Date Prep: | 02.12.2021 08:50 | % Moisture: | |
| Seq Number: | 3151037 | | | Basis: | Wet Weight |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **375** | 5.05 | mg/kg | 02.13.2021 00:27 | | 1 |

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# Certificate of Analytical Results 687929

## Larson and Associates, Inc., Midland, TX

Culebra Bluff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-11, 35'** | Matrix: | Soil | Date Received: | 02.10.2021 09:03 |
| Lab Sample Id: | 687929-004 | Date Collected: | 02.09.2021 14:54 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | | |
| Analyst: | CHE | Date Prep: | 02.12.2021 08:50 | % Moisture: | |
| Seq Number: | 3151037 | | | Basis: | Wet Weight |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **354** | 5.00 | mg/kg | 02.13.2021 00:32 | X | 1 |

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# Flagging Criteria

**X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

**B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

**D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

**E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

**F** RPD exceeded lab control limits.

**J** The target analyte was positively identified below the quantitation limit and above the detection limit.

**U** Analyte was not detected.

**L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

**H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

**K** Sample analyzed outside of recommended hold time.

**JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit. **ND** Not Detected.

**RL** Reporting Limit

**MDL** Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

**PQL** Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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# QC Summary 687929

## Larson and Associates, Inc.

Culebra Bluff

**Analytical Method:** **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3151037 Matrix: Solid Date Prep: 02.12.2021
MB Sample Id: 7721393-1-BLK LCS Sample Id: 7721393-1-BKS LCSD Sample Id: 7721393-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 252 | 101 | 251 | 100 | 90-110 | 0 | 20 | mg/kg | 02.12.2021 21:52 | |

**Analytical Method:** **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3151037 Matrix: Soil Date Prep: 02.12.2021
Parent Sample Id: 687927-001 MS Sample Id: 687927-001 S MSD Sample Id: 687927-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.04 | 252 | 249 | 99 | 241 | 96 | 90-110 | 3 | 20 | mg/kg | 02.12.2021 23:21 | |

**Analytical Method:** **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3151037 Matrix: Soil Date Prep: 02.12.2021
Parent Sample Id: 687929-004 MS Sample Id: 687929-004 S MSD Sample Id: 687929-004 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 354 | 250 | 581 | 91 | 574 | 88 | 90-110 | 1 | 20 | mg/kg | 02.13.2021 00:37 | X |

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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№1413

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 2/10/2021 PAGE 1 OF 1

PO#: LAB WORK ORDER#: 687929

PROJECT LOCATION OR NAME: Culebra Bluff

LAI PROJECT #: 19-0180-07 COLLECTOR: DV

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ | NaOH ☐ | ICE | UNPRESSERVED | ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ | TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ | PAH 8270 ☐ | HOLDPAH ☐ | 8081 PESTICIDES ☐ | 8082 PCBS ☐ | 8151 HERBICIDES ☐ | TBLP - METALS (RCRA) | TCLP - PEST ☐ | TCLP VOC ☐ | HERB ☐ | TOTAL METALS (RCRA) ☐ | Semi-VOC ☐ | LEAD - TOTAL ☐ | OTHER LIST ☐ | RCI ☐ | TOX ☐ | D.W. 200.8 ☐ | TDS ☐ | TSS ☐ | FLASHPOINT ☐ | pH ☐ | % MOISTURE ☐ | EXPLOSIVES ☐ | HEXAVALENT CHROMIUM ☐ | CHLORIDE ☒ | CYANIDE ☐ | PECHLORATE ☐ | ANIONS ☐ | ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BH-2, 65' | | 2/9/21 | 12:23 | S | 1 | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-1, 65' | | " | 13:21 | " | 1 | | | | | " | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-10, 35' | | " | 14:11 | " | 1 | | | | | " | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BH-11, 35' | | " | 14:54 | " | 1 | | | | | " | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY:(Signature) DATE/TIME 2/10/21 903 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: 4.9 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # ____
☐ HAND DELIVERED

Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:21:21 PM
Page 12 of 13
Final 1.000

# Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

**Client:** Larson and Associates, Inc.

**Date/ Time Received:** 02.10.2021 09.03.00 AM

**Work Order #:** 687929

**Acceptable Temperature Range: 0 - 6 degC**
**Air and Metal samples Acceptable Range: Ambient**

**Temperature Measuring device used : IR8**

| Sample Receipt Checklist | Comments |
|---|---|
| #1 *Temperature of cooler(s)? | 4.9 |
| #2 *Shipping container in good condition? | **Yes** |
| #3 *Samples received on ice? | **Yes** |
| #4 *Custody Seals intact on shipping container/ cooler? | **N/A** |
| #5 Custody Seals intact on sample bottles? | **N/A** |
| #6*Custody Seals Signed and dated? | **N/A** |
| #7 *Chain of Custody present? | **Yes** |
| #8 Any missing/extra samples? | **No** |
| #9 Chain of Custody signed when relinquished/ received? | **Yes** |
| #10 Chain of Custody agrees with sample labels/matrix? | **Yes** |
| #11 Container label(s) legible and intact? | **Yes** |
| #12 Samples in proper container/ bottle? | **Yes** |
| #13 Samples properly preserved? | **Yes** |
| #14 Sample container(s) intact? | **Yes** |
| #15 Sufficient sample amount for indicated test(s)? | **Yes** |
| #16 All samples received within hold time? | **Yes** |
| #17 Subcontract of sample(s)? | **N/A** |
| #18 Water VOC samples have zero headspace? | **N/A** |

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

**Checklist completed by:** Brianna Teel Date: 02.10.2021

Brianna Teel

**Checklist reviewed by:** Holly Taylor Date: 02.10.2021

Holly Taylor

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# Certificate of Analysis Summary 688860

## Larson and Associates, Inc., Midland, TX

### Project Name: Culebra Buff

**Project Id:** 19-0180-07
**Contact:** Mark Larson
**Project Location:**

**Date Received in Lab:** Tue 02.23.2021 08:51
**Report Date:** 03.02.2021 13:50
**Project Manager:** Holly Taylor

| *Analysis Requested* | | | | | | | |
|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 688860-001 | | | | | |
| | ***Field Id:*** | BH-2 70' | | | | | |
| | ***Depth:*** | | | | | | |
| | ***Matrix:*** | SOIL | | | | | |
| | ***Sampled:*** | 02.09.2021 12:44 | | | | | |
| **Chloride by EPA 300** | ***Extracted:*** | 02.23.2021 13:50 | | | | | |
| | ***Analyzed:*** | 02.23.2021 21:08 | | | | | |
| | ***Units/RL:*** | mg/kg | RL | | | | |
| Chloride | | 655 | 4.97 | | | | |

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor

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# Analytical Report 688860

## for

## Larson and Associates, Inc.

**Project Manager: Mark Larson**

**Culebra Buff**

**19-0180-07**

**03.02.2021**

Collected By: Client

**1211 W. Florida Ave**
**Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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03.02.2021

Project Manager: **Mark Larson**
**Larson and Associates, Inc.**
P. O. Box 50685
Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **688860**
**Culebra Buff**
Project Address:

**Mark Larson**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 688860. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 688860 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

**Holly Taylor**
Project Manager

*A Small Business and Minority Company*

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

# Sample Cross Reference 688860

## Larson and Associates, Inc., Midland, TX

Culebra Buff

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---|---|---|---|---|
| BH-2 70' | S | 02.09.2021 12:44 | | 688860-001 |

# CASE NARRATIVE



eurofins | Environment Testing Xenco

***Client Name: Larson and Associates, Inc.***

***Project Name: Culebra Buff***

Project ID: *19-0180-07*
Work Order Number(s): *688860*

Report Date: *03.02.2021*
Date Received: *02.23.2021*

**Sample receipt non conformances and comments:**

3/02/2021 1.001 Revised to change the project name per Robert Nelson (email). HT

**Sample receipt non conformances and comments per sample:**

None

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# Certificate of Analytical Results 688860

## Larson and Associates, Inc., Midland, TX

Culebra Buff

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **BH-2 70'** | Matrix: | Soil | Date Received: | 02.23.2021 08:51 |
| Lab Sample Id: | 688860-001 | Date Collected: | 02.09.2021 12:44 | | |
| Analytical Method: | Chloride by EPA 300 | | | Prep Method: | E300P |
| Tech: | CHE | | | | |
| Analyst: | CHE | Date Prep: | 02.23.2021 13:50 | % Moisture: | |
| Seq Number: | 3151604 | | | Basis: | Wet Weight |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **655** | 4.97 | mg/kg | 02.23.2021 21:08 | | 1 |

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# Flagging Criteria

**X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

**B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

**D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

**E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

**F** RPD exceeded lab control limits.

**J** The target analyte was positively identified below the quantitation limit and above the detection limit.

**U** Analyte was not detected.

**L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

**H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

**K** Sample analyzed outside of recommended hold time.

**JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit. **ND** Not Detected.

**RL** Reporting Limit

**MDL** Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

**PQL** Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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# QC Summary 688860

## Larson and Associates, Inc.

Culebra Buff

**Analytical Method:** **Chloride by EPA 300** Prep Method: E300P

Seq Number: 3151604 Matrix: Solid Date Prep: 02.23.2021

MB Sample Id: 7721823-1-BLK LCS Sample Id: 7721823-1-BKS LCSD Sample Id: 7721823-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | 250 | 245 | 98 | 245 | 98 | 90-110 | 0 | 20 | mg/kg | 02.23.2021 19:27 | |

**Analytical Method:** **Chloride by EPA 300** Prep Method: E300P

Seq Number: 3151604 Matrix: Soil Date Prep: 02.23.2021

Parent Sample Id: 688833-003 MS Sample Id: 688833-003 S MSD Sample Id: 688833-003 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 33.4 | 252 | 286 | 100 | 286 | 100 | 90-110 | 0 | 20 | mg/kg | 02.23.2021 19:43 | |

**Analytical Method:** **Chloride by EPA 300** Prep Method: E300P

Seq Number: 3151604 Matrix: Soil Date Prep: 02.23.2021

Parent Sample Id: 688859-005 MS Sample Id: 688859-005 S MSD Sample Id: 688859-005 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 12.0 | 250 | 261 | 100 | 262 | 100 | 90-110 | 0 | 20 | mg/kg | 02.23.2021 20:57 | |

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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№1522

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 2/23/20 PAGE 1 OF 1

PO#: LAB WORK ORDER#: 688860

PROJECT LOCATION OR NAME: Culebra Bluff

LAI PROJECT #: 19-0180-07 COLLECTOR: ~~RN~~ RN

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES: BTEX ☐ MTBE ☐ TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ GASOLINE MOD 8015 ☐ DIESEL - MOD 8015 ☐ OIL - MOD 8015 ☐ VOC 8260 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ 8082 PCBS ☐ TBLP - METALS (RCRA) ☐ TCLP VOC ☐ TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ TOTAL METALS (RCRA) ☐ OTHER LIST ☐ LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ RCI ☐ TOX ☐ FLASHPOINT ☐ TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ pH ☐ HEXAVALENT CHROMIUM ☐ EXPLOSIVES ☐ PECHLORATE ☐ CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BH-2 70' | | 2/9/20 | 1244 | S | 1 | | | | X | | X | |

TOTAL 1

| RELINQUISHED BY:(Signature) | DATE/TIME | RECEIVED BY: (Signature) |
|---|---|---|
| [signature] | 2/23/21 0851 | [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: -4.3 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:21:21 PM
Final 1.001
Page 9 of 10

# Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

**Client:** Larson and Associates, Inc.

**Date/ Time Received:** 02.23.2021 08.51.00 AM

**Work Order #:** 688860

**Acceptable Temperature Range: 0 - 6 degC**
**Air and Metal samples Acceptable Range: Ambient**

**Temperature Measuring device used : IR8**

| Sample Receipt Checklist | Comments |
|---|---|
| #1 *Temperature of cooler(s)? | -4.3 |
| #2 *Shipping container in good condition? | **Yes** |
| #3 *Samples received on ice? | **Yes** |
| #4 *Custody Seals intact on shipping container/ cooler? | **N/A** |
| #5 Custody Seals intact on sample bottles? | **N/A** |
| #6*Custody Seals Signed and dated? | **N/A** |
| #7 *Chain of Custody present? | **Yes** |
| #8 Any missing/extra samples? | **No** |
| #9 Chain of Custody signed when relinquished/ received? | **Yes** |
| #10 Chain of Custody agrees with sample labels/matrix? | **Yes** |
| #11 Container label(s) legible and intact? | **Yes** |
| #12 Samples in proper container/ bottle? | **Yes** |
| #13 Samples properly preserved? | **Yes** |
| #14 Sample container(s) intact? | **Yes** |
| #15 Sufficient sample amount for indicated test(s)? | **Yes** |
| #16 All samples received within hold time? | **Yes** |
| #17 Subcontract of sample(s)? | **N/A** |
| #18 Water VOC samples have zero headspace? | **N/A** |

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

**Checklist completed by:** Brianna Teel Date: 02.23.2021

Brianna Teel

**Checklist reviewed by:** Holly Taylor Date: 02.24.2021

Holly Taylor

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# ANALYTICAL REPORT

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

Laboratory Job ID: 880-14444-1
Laboratory Sample Delivery Group: 19-0180-07
Client Project/Site: Culebra Bluff

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

Attn: Mr. Mark J Larson

Holly Taylor

*Authorized for release by:*
*5/16/2022 2:26:47 PM*

Holly Taylor, Project Manager
(806)794-1296
Holly.Taylor@et.eurofinsus.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: Culebra Bluff

Laboratory Job ID: 880-14444-1
SDG: 19-0180-07

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# Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-14444-1
Project/Site: Culebra Bluff SDG: 19-0180-07

## 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: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

## Job ID: 880-14444-1

**Laboratory: Eurofins Midland**

**Narrative**

**Job Narrative**
**880-14444-1**

**Receipt**
The samples were received on 5/5/2022 9:12 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**
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 sample was outside control limits: BG-1 1.0' (880-14444-8). Evidence of matrix interferences is not obvious.

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

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

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

## Client Sample ID: BG-1 1.0'

**Lab Sample ID: 880-14444-8**
**Matrix: Solid**
**Date Collected: 05/04/22 13:35**
**Date Received: 05/05/22 09:12**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:16 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:16 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:16 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:16 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:16 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *83* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 18:16* | *1* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 18:16* | *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 | | | 05/14/22 15:19 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 05/09/22 12:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 05/06/22 14:38 | 05/08/22 06:05 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 05/06/22 14:38 | 05/08/22 06:05 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/06/22 14:38 | 05/08/22 06:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *122* | | *70 - 130* | *05/06/22 14:38* | *05/08/22 06:05* | *1* |
| *o-Terphenyl (Surr)* | *132* | *S1+* | *70 - 130* | *05/06/22 14:38* | *05/08/22 06:05* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **502** | | 5.00 | | mg/Kg | | | 05/11/22 00:09 | 1 |

## Client Sample ID: BG-1 3.0'

**Lab Sample ID: 880-14444-9**
**Matrix: Solid**
**Date Collected: 05/04/22 13:36**
**Date Received: 05/05/22 09:12**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:36 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:36 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:36 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:36 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:36 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 18:36* | *1* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 18:36* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-14444-1
Project/Site: Culebra Bluff SDG: 19-0180-07

## Client Sample ID: BG-1 3.0'
**Lab Sample ID: 880-14444-9**
**Date Collected: 05/04/22 13:36** **Matrix: Solid**
**Date Received: 05/05/22 09:12**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 05/14/22 15:19 | 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 | | | 05/09/22 12:05 | 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 | | 05/06/22 14:38 | 05/08/22 06:25 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 05/06/22 14:38 | 05/08/22 06:25 | 1 |
| Oil Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 05/06/22 14:38 | 05/08/22 06:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *91* | | *70 - 130* | *05/06/22 14:38* | *05/08/22 06:25* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *05/06/22 14:38* | *05/08/22 06:25* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **810** | | 5.01 | | mg/Kg | | | 05/11/22 00:34 | 1 |

## Client Sample ID: BG-1 5.0'
**Lab Sample ID: 880-14444-10**
**Date Collected: 05/04/22 13:37** **Matrix: Solid**
**Date Received: 05/05/22 09:12**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:57 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:57 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:57 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:57 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:57 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 18:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *93* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 18:57* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 18:57* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 05/14/22 15:19 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 05/09/22 12:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 13:12 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 13:12 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-14444-1
Project/Site: Culebra Bluff SDG: 19-0180-07

## Client Sample ID: BG-1 5.0'
**Lab Sample ID: 880-14444-10**
**Date Collected: 05/04/22 13:37** **Matrix: Solid**
**Date Received: 05/05/22 09:12**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 13:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *98* | | *70 - 130* | *05/06/22 14:42* | *05/07/22 13:12* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *05/06/22 14:42* | *05/07/22 13:12* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **559** | | 25.0 | | mg/Kg | | | 05/11/22 00:42 | 5 |

## Client Sample ID: BG-1 10.0'
**Lab Sample ID: 880-14444-11**
**Date Collected: 05/04/22 13:38** **Matrix: Solid**
**Date Received: 05/05/22 09:12**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:18 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:18 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:18 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:18 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:18 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *94* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 19:18* | *1* |
| *1,4-Difluorobenzene (Surr)* | *112* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 19:18* | *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 | | | 05/14/22 15:19 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 05/09/22 12:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 14:16 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 14:16 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 14:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *74* | | *70 - 130* | *05/06/22 14:42* | *05/07/22 14:16* | *1* |
| *o-Terphenyl (Surr)* | *72* | | *70 - 130* | *05/06/22 14:42* | *05/07/22 14:16* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **439** | | 4.97 | | mg/Kg | | | 05/11/22 00:50 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

**Client Sample ID: BG-2 1.0'**
**Date Collected: 05/04/22 14:00**
**Date Received: 05/05/22 09:12**

**Lab Sample ID: 880-14444-12**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:39 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:39 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:39 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:39 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:39 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 19:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *94* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 19:39* | *1* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 19:39* | *1* |

## Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 05/14/22 15:19 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 05/09/22 12:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 14:38 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 14:38 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 14:38 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *82* | | *70 - 130* | *05/06/22 14:42* | *05/07/22 14:38* | *1* |
| *o-Terphenyl (Surr)* | *83* | | *70 - 130* | *05/06/22 14:42* | *05/07/22 14:38* | *1* |

## Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **76.7** | | 4.95 | | mg/Kg | | | 05/11/22 00:58 | 1 |

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

## 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) |
| 880-14444-8 | BG-1 1.0' | 83 | 109 |
| 880-14444-9 | BG-1 3.0' | 90 | 109 |
| 880-14444-10 | BG-1 5.0' | 93 | 106 |
| 880-14444-11 | BG-1 10.0' | 94 | 112 |
| 880-14444-12 | BG-2 1.0' | 94 | 109 |
| 880-14515-A-35-E MS | Matrix Spike | 104 | 108 |
| 880-14515-A-35-F MSD | Matrix Spike Duplicate | 98 | 107 |
| LCS 880-25281/1-A | Lab Control Sample | 105 | 103 |
| LCSD 880-25281/2-A | Lab Control Sample Dup | 96 | 102 |
| MB 880-25281/5-A | Method Blank | 92 | 100 |

**Surrogate Legend**

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

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | 1CO1 | OTPH1 |
| Lab Sample ID | Client Sample ID | (70-130) | (70-130) |
| 880-14444-8 | BG-1 1.0' | 122 | 132 S1+ |
| 880-14444-9 | BG-1 3.0' | 91 | 95 |
| 880-14444-10 | BG-1 5.0' | 98 | 95 |
| 880-14444-10 MS | BG-1 5.0' | 80 | 72 |
| 880-14444-10 MSD | BG-1 5.0' | 86 | 76 |
| 880-14444-11 | BG-1 10.0' | 74 | 72 |
| 880-14444-12 | BG-2 1.0' | 82 | 83 |
| 890-2276-A-1-D MS | Matrix Spike | 89 | 86 |
| 890-2276-A-1-E MSD | Matrix Spike Duplicate | 89 | 84 |
| LCS 880-24992/2-A | Lab Control Sample | 102 | 107 |
| LCS 880-24993/2-A | Lab Control Sample | 85 | 84 |
| LCSD 880-24992/3-A | Lab Control Sample Dup | 108 | 114 |
| LCSD 880-24993/3-A | Lab Control Sample Dup | 80 | 78 |
| MB 880-24992/1-A | Method Blank | 101 | 115 |
| MB 880-24993/1-A | Method Blank | 92 | 106 |

**Surrogate Legend**

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

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-25281/5-A**
**Matrix: Solid**
**Analysis Batch: 25496**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 25281**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 12:08 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 12:08 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 12:08 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 12:08 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 12:08 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 05/10/22 13:58 | 05/13/22 12:08 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *92* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 12:08* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *05/10/22 13:58* | *05/13/22 12:08* | *1* |

**Lab Sample ID: LCS 880-25281/1-A**
**Matrix: Solid**
**Analysis Batch: 25496**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 25281**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.07938 | | mg/Kg | | 79 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.08493 | | mg/Kg | | 85 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.09484 | | mg/Kg | | 95 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.2031 | | mg/Kg | | 102 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.09940 | | mg/Kg | | 99 | 70 - 130 | | |

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

**Lab Sample ID: LCSD 880-25281/2-A**
**Matrix: Solid**
**Analysis Batch: 25496**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 25281**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.08261 | | mg/Kg | | 83 | 70 - 130 | 4 | 35 |
| Toluene | | | 0.100 | 0.08304 | | mg/Kg | | 83 | 70 - 130 | 2 | 35 |
| Ethylbenzene | | | 0.100 | 0.08772 | | mg/Kg | | 88 | 70 - 130 | 8 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1866 | | mg/Kg | | 93 | 70 - 130 | 9 | 35 |
| o-Xylene | | | 0.100 | 0.09129 | | mg/Kg | | 91 | 70 - 130 | 9 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *96* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* |

**Lab Sample ID: 880-14515-A-35-E MS**
**Matrix: Solid**
**Analysis Batch: 25496**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 25281**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.100 | 0.07072 | | mg/Kg | | 71 | 70 - 130 | | |
| Toluene | <0.00200 | U | 0.100 | 0.07246 | | mg/Kg | | 72 | 70 - 130 | | |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-14515-A-35-E MS**
**Matrix: Solid**
**Analysis Batch: 25496**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 25281**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.00200 | U | 0.100 | 0.07689 | | mg/Kg | | 77 | 70 - 130 |
| m,p-Xylenes | <0.00401 | U | 0.200 | 0.1596 | | mg/Kg | | 80 | 70 - 130 |
| o-Xylene | <0.00200 | U | 0.100 | 0.07994 | | mg/Kg | | 80 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *108* | | *70 - 130* |

**Lab Sample ID: 880-14515-A-35-F MSD**
**Matrix: Solid**
**Analysis Batch: 25496**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 25281**

| 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 | 0.07018 | | mg/Kg | | 70 | 70 - 130 | 1 | 35 |
| Toluene | <0.00200 | U | 0.0998 | 0.06987 | | mg/Kg | | 70 | 70 - 130 | 4 | 35 |
| Ethylbenzene | <0.00200 | U | 0.0998 | 0.07365 | | mg/Kg | | 74 | 70 - 130 | 4 | 35 |
| m,p-Xylenes | <0.00401 | U | 0.200 | 0.1506 | | mg/Kg | | 75 | 70 - 130 | 6 | 35 |
| o-Xylene | <0.00200 | U | 0.0998 | 0.07514 | | mg/Kg | | 75 | 70 - 130 | 6 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* |

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

**Lab Sample ID: MB 880-24992/1-A**
**Matrix: Solid**
**Analysis Batch: 25017**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 24992**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:38 | 05/07/22 21:59 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:38 | 05/07/22 21:59 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:38 | 05/07/22 21:59 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *101* | | *70 - 130* | *05/06/22 14:38* | *05/07/22 21:59* | *1* |
| *o-Terphenyl (Surr)* | *115* | | *70 - 130* | *05/06/22 14:38* | *05/07/22 21:59* | *1* |

**Lab Sample ID: LCS 880-24992/2-A**
**Matrix: Solid**
**Analysis Batch: 25017**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 24992**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 1095 | | mg/Kg | | 109 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 926.5 | | mg/Kg | | 93 | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

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

**Lab Sample ID: LCS 880-24992/2-A**
**Matrix: Solid**
**Analysis Batch: 25017**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 24992**

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 102 | | 70 - 130 |
| o-Terphenyl (Surr) | 107 | | 70 - 130 |

**Lab Sample ID: LCSD 880-24992/3-A**
**Matrix: Solid**
**Analysis Batch: 25017**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 24992**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 1087 | | mg/Kg | | 109 | 70 - 130 | 1 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 918.9 | | mg/Kg | | 92 | 70 - 130 | 1 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 108 | | 70 - 130 |
| o-Terphenyl (Surr) | 114 | | 70 - 130 |

**Lab Sample ID: 890-2276-A-1-D MS**
**Matrix: Solid**
**Analysis Batch: 25017**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 24992**

| 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 | 1038 | | mg/Kg | | 104 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 1000 | 780.9 | | mg/Kg | | 78 | 70 - 130 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 89 | | 70 - 130 |
| o-Terphenyl (Surr) | 86 | | 70 - 130 |

**Lab Sample ID: 890-2276-A-1-E MSD**
**Matrix: Solid**
**Analysis Batch: 25017**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 24992**

| 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 | 1044 | | mg/Kg | | 105 | 70 - 130 | 1 | 20 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 998 | 768.4 | | mg/Kg | | 77 | 70 - 130 | 2 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 89 | | 70 - 130 |
| o-Terphenyl (Surr) | 84 | | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-24993/1-A**
**Matrix: Solid**
**Analysis Batch: 25019**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 24993**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 12:08 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 12:08 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/06/22 14:42 | 05/07/22 12:08 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *92* | | *70 - 130* | *05/06/22 14:42* | *05/07/22 12:08* | *1* |
| *o-Terphenyl (Surr)* | *106* | | *70 - 130* | *05/06/22 14:42* | *05/07/22 12:08* | *1* |

**Lab Sample ID: LCS 880-24993/2-A**
**Matrix: Solid**
**Analysis Batch: 25019**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 24993**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 960.1 | | mg/Kg | | 96 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 873.5 | | mg/Kg | | 87 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *85* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *84* | | *70 - 130* |

**Lab Sample ID: LCSD 880-24993/3-A**
**Matrix: Solid**
**Analysis Batch: 25019**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 24993**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 956.9 | | mg/Kg | | 96 | 70 - 130 | 0 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 803.7 | | mg/Kg | | 80 | 70 - 130 | 8 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *80* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *78* | | *70 - 130* |

**Lab Sample ID: 880-14444-10 MS**
**Matrix: Solid**
**Analysis Batch: 25019**

**Client Sample ID: BG-1 5.0'**
**Prep Type: Total/NA**
**Prep Batch: 24993**

| 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 | 881.4 | | mg/Kg | | 88 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 1000 | 747.4 | | mg/Kg | | 72 | 70 - 130 | | |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-14444-10 MS**
**Matrix: Solid**
**Analysis Batch: 25019**

**Client Sample ID: BG-1 5.0'**
**Prep Type: Total/NA**
**Prep Batch: 24993**

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 80 | | 70 - 130 |
| o-Terphenyl (Surr) | 72 | | 70 - 130 |

**Lab Sample ID: 880-14444-10 MSD**
**Matrix: Solid**
**Analysis Batch: 25019**

**Client Sample ID: BG-1 5.0'**
**Prep Type: Total/NA**
**Prep Batch: 24993**

| 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 | 967.2 | | mg/Kg | | 97 | 70 - 130 | 9 | 20 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 998 | 796.4 | | mg/Kg | | 77 | 70 - 130 | 6 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 86 | | 70 - 130 |
| o-Terphenyl (Surr) | 76 | | 70 - 130 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-24904/1-A**
**Matrix: Solid**
**Analysis Batch: 25285**

**Client Sample ID: Method Blank**
**Prep Type: Soluble**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 05/10/22 23:45 | 1 |

**Lab Sample ID: LCS 880-24904/2-A**
**Matrix: Solid**
**Analysis Batch: 25285**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 263.1 | | mg/Kg | | 105 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-24904/3-A**
**Matrix: Solid**
**Analysis Batch: 25285**

**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 | 262.5 | | mg/Kg | | 105 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 880-14444-8 MS**
**Matrix: Solid**
**Analysis Batch: 25285**

**Client Sample ID: BG-1 1.0'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 502 | | 250 | 732.4 | | mg/Kg | | 92 | 90 - 110 | | |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 880-14444-8 MSD**
**Matrix: Solid**
**Analysis Batch: 25285**

**Client Sample ID: BG-1 1.0'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 502 | | 250 | 728.9 | | mg/Kg | | 91 | 90 - 110 | 0 | 20 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

## GC VOA

### Prep Batch: 25281

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-8 | BG-1 1.0' | Total/NA | Solid | 5035 | |
| 880-14444-9 | BG-1 3.0' | Total/NA | Solid | 5035 | |
| 880-14444-10 | BG-1 5.0' | Total/NA | Solid | 5035 | |
| 880-14444-11 | BG-1 10.0' | Total/NA | Solid | 5035 | |
| 880-14444-12 | BG-2 1.0' | Total/NA | Solid | 5035 | |
| MB 880-25281/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-25281/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-25281/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-14515-A-35-E MS | Matrix Spike | Total/NA | Solid | 5035 | |
| 880-14515-A-35-F MSD | Matrix Spike Duplicate | Total/NA | Solid | 5035 | |

### Analysis Batch: 25496

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-8 | BG-1 1.0' | Total/NA | Solid | 8021B | 25281 |
| 880-14444-9 | BG-1 3.0' | Total/NA | Solid | 8021B | 25281 |
| 880-14444-10 | BG-1 5.0' | Total/NA | Solid | 8021B | 25281 |
| 880-14444-11 | BG-1 10.0' | Total/NA | Solid | 8021B | 25281 |
| 880-14444-12 | BG-2 1.0' | Total/NA | Solid | 8021B | 25281 |
| MB 880-25281/5-A | Method Blank | Total/NA | Solid | 8021B | 25281 |
| LCS 880-25281/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 25281 |
| LCSD 880-25281/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 25281 |
| 880-14515-A-35-E MS | Matrix Spike | Total/NA | Solid | 8021B | 25281 |
| 880-14515-A-35-F MSD | Matrix Spike Duplicate | Total/NA | Solid | 8021B | 25281 |

### Analysis Batch: 25566

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-8 | BG-1 1.0' | Total/NA | Solid | Total BTEX | |
| 880-14444-9 | BG-1 3.0' | Total/NA | Solid | Total BTEX | |
| 880-14444-10 | BG-1 5.0' | Total/NA | Solid | Total BTEX | |
| 880-14444-11 | BG-1 10.0' | Total/NA | Solid | Total BTEX | |
| 880-14444-12 | BG-2 1.0' | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Prep Batch: 24992

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-8 | BG-1 1.0' | Total/NA | Solid | 8015NM Prep | |
| 880-14444-9 | BG-1 3.0' | Total/NA | Solid | 8015NM Prep | |
| MB 880-24992/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-24992/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-24992/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 890-2276-A-1-D MS | Matrix Spike | Total/NA | Solid | 8015NM Prep | |
| 890-2276-A-1-E MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015NM Prep | |

### Prep Batch: 24993

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-10 | BG-1 5.0' | Total/NA | Solid | 8015NM Prep | |
| 880-14444-11 | BG-1 10.0' | Total/NA | Solid | 8015NM Prep | |
| 880-14444-12 | BG-2 1.0' | Total/NA | Solid | 8015NM Prep | |
| MB 880-24993/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-24993/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-14444-1
Project/Site: Culebra Bluff SDG: 19-0180-07

## GC Semi VOA (Continued)

### Prep Batch: 24993 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCSD 880-24993/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-14444-10 MS | BG-1 5.0' | Total/NA | Solid | 8015NM Prep | |
| 880-14444-10 MSD | BG-1 5.0' | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 25017

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-8 | BG-1 1.0' | Total/NA | Solid | 8015B NM | 24992 |
| 880-14444-9 | BG-1 3.0' | Total/NA | Solid | 8015B NM | 24992 |
| MB 880-24992/1-A | Method Blank | Total/NA | Solid | 8015B NM | 24992 |
| LCS 880-24992/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 24992 |
| LCSD 880-24992/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 24992 |
| 890-2276-A-1-D MS | Matrix Spike | Total/NA | Solid | 8015B NM | 24992 |
| 890-2276-A-1-E MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015B NM | 24992 |

### Analysis Batch: 25019

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-10 | BG-1 5.0' | Total/NA | Solid | 8015B NM | 24993 |
| 880-14444-11 | BG-1 10.0' | Total/NA | Solid | 8015B NM | 24993 |
| 880-14444-12 | BG-2 1.0' | Total/NA | Solid | 8015B NM | 24993 |
| MB 880-24993/1-A | Method Blank | Total/NA | Solid | 8015B NM | 24993 |
| LCS 880-24993/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 24993 |
| LCSD 880-24993/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 24993 |
| 880-14444-10 MS | BG-1 5.0' | Total/NA | Solid | 8015B NM | 24993 |
| 880-14444-10 MSD | BG-1 5.0' | Total/NA | Solid | 8015B NM | 24993 |

### Analysis Batch: 25096

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-8 | BG-1 1.0' | Total/NA | Solid | 8015 NM | |
| 880-14444-9 | BG-1 3.0' | Total/NA | Solid | 8015 NM | |
| 880-14444-10 | BG-1 5.0' | Total/NA | Solid | 8015 NM | |
| 880-14444-11 | BG-1 10.0' | Total/NA | Solid | 8015 NM | |
| 880-14444-12 | BG-2 1.0' | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 24904

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-8 | BG-1 1.0' | Soluble | Solid | DI Leach | |
| 880-14444-9 | BG-1 3.0' | Soluble | Solid | DI Leach | |
| 880-14444-10 | BG-1 5.0' | Soluble | Solid | DI Leach | |
| 880-14444-11 | BG-1 10.0' | Soluble | Solid | DI Leach | |
| 880-14444-12 | BG-2 1.0' | Soluble | Solid | DI Leach | |
| MB 880-24904/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-24904/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-24904/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-14444-8 MS | BG-1 1.0' | Soluble | Solid | DI Leach | |
| 880-14444-8 MSD | BG-1 1.0' | Soluble | Solid | DI Leach | |

### Analysis Batch: 25285

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-8 | BG-1 1.0' | Soluble | Solid | 300.0 | 24904 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

## HPLC/IC (Continued)

### Analysis Batch: 25285 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-14444-9 | BG-1 3.0' | Soluble | Solid | 300.0 | 24904 |
| 880-14444-10 | BG-1 5.0' | Soluble | Solid | 300.0 | 24904 |
| 880-14444-11 | BG-1 10.0' | Soluble | Solid | 300.0 | 24904 |
| 880-14444-12 | BG-2 1.0' | Soluble | Solid | 300.0 | 24904 |
| MB 880-24904/1-A | Method Blank | Soluble | Solid | 300.0 | 24904 |
| LCS 880-24904/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 24904 |
| LCSD 880-24904/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 24904 |
| 880-14444-8 MS | BG-1 1.0' | Soluble | Solid | 300.0 | 24904 |
| 880-14444-8 MSD | BG-1 1.0' | Soluble | Solid | 300.0 | 24904 |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

## Client Sample ID: BG-1 1.0'

**Lab Sample ID: 880-14444-8**
**Matrix: Solid**
**Date Collected: 05/04/22 13:35**
**Date Received: 05/05/22 09:12**

| 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 | 25281 | 05/10/22 13:58 | MR | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 25496 | 05/13/22 18:16 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 25566 | 05/14/22 15:19 | MR | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 25096 | 05/09/22 12:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 24992 | 05/06/22 14:38 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 25017 | 05/08/22 06:05 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 24904 | 05/05/22 13:27 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 25285 | 05/11/22 00:09 | CH | XEN MID |

## Client Sample ID: BG-1 3.0'

**Lab Sample ID: 880-14444-9**
**Matrix: Solid**
**Date Collected: 05/04/22 13:36**
**Date Received: 05/05/22 09:12**

| 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 | 25281 | 05/10/22 13:58 | MR | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 25496 | 05/13/22 18:36 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 25566 | 05/14/22 15:19 | MR | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 25096 | 05/09/22 12:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 24992 | 05/06/22 14:38 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 25017 | 05/08/22 06:25 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 24904 | 05/05/22 13:27 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 25285 | 05/11/22 00:34 | CH | XEN MID |

## Client Sample ID: BG-1 5.0'

**Lab Sample ID: 880-14444-10**
**Matrix: Solid**
**Date Collected: 05/04/22 13:37**
**Date Received: 05/05/22 09:12**

| 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 | 25281 | 05/10/22 13:58 | MR | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 25496 | 05/13/22 18:57 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 25566 | 05/14/22 15:19 | MR | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 25096 | 05/09/22 12:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 24993 | 05/06/22 14:42 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 25019 | 05/07/22 13:12 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 24904 | 05/05/22 13:27 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 25285 | 05/11/22 00:42 | CH | XEN MID |

## Client Sample ID: BG-1 10.0'

**Lab Sample ID: 880-14444-11**
**Matrix: Solid**
**Date Collected: 05/04/22 13:38**
**Date Received: 05/05/22 09:12**

| 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 | 25281 | 05/10/22 13:58 | MR | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 25496 | 05/13/22 19:18 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 25566 | 05/14/22 15:19 | MR | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

## Client Sample ID: BG-1 10.0'

**Lab Sample ID: 880-14444-11**
**Matrix: Solid**
**Date Collected: 05/04/22 13:38**
**Date Received: 05/05/22 09:12**

| 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 | | | 25096 | 05/09/22 12:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 24993 | 05/06/22 14:42 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 25019 | 05/07/22 14:16 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 24904 | 05/05/22 13:27 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 25285 | 05/11/22 00:50 | CH | XEN MID |

## Client Sample ID: BG-2 1.0'

**Lab Sample ID: 880-14444-12**
**Matrix: Solid**
**Date Collected: 05/04/22 14:00**
**Date Received: 05/05/22 09:12**

| 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 | 25281 | 05/10/22 13:58 | MR | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 25496 | 05/13/22 19:39 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 25566 | 05/14/22 15:19 | MR | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 25096 | 05/09/22 12:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 24993 | 05/06/22 14:42 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 25019 | 05/07/22 14:38 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 24904 | 05/05/22 13:27 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 25285 | 05/11/22 00:58 | 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: 880-14444-1
Project/Site: Culebra Bluff SDG: 19-0180-07

## 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: 880-14444-1
Project/Site: Culebra Bluff SDG: 19-0180-07

| 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: Culebra Bluff

Job ID: 880-14444-1
SDG: 19-0180-07

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 880-14444-8 | BG-1 1.0' | Solid | 05/04/22 13:35 | 05/05/22 09:12 |
| 880-14444-9 | BG-1 3.0' | Solid | 05/04/22 13:36 | 05/05/22 09:12 |
| 880-14444-10 | BG-1 5.0' | Solid | 05/04/22 13:37 | 05/05/22 09:12 |
| 880-14444-11 | BG-1 10.0' | Solid | 05/04/22 13:38 | 05/05/22 09:12 |
| 880-14444-12 | BG-2 1.0' | Solid | 05/04/22 14:00 | 05/05/22 09:12 |

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No. 2235

14444 CHAIN-OF-CUSTODY

5/16/2022

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

Data Reported to

DATE 5-5-22 PAGE 1 OF 1

PO# LAB WORK ORDER#

PROJECT LOCATION OR NAME Culebra Bluff

LAI PROJECT # 19-0180-07 COLLECTOR TP+JR

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 PEST | TCLP HERB | TCLP VOC | TOTAL METALS (RCRA) | Semi-VOC | LEAD - TOTAL | OTHER LIST | DW 200.8 | RCI | TCLP | TOX | TDS | FLASHPOINT | TSS | pH | % MOISTURE | HEXAVALENT CHROMIUM | CYANIDE | EXPLOSIVES | PECHLORATE | CHLORIDE | ANIONS | ALKALINITY | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PB-4 0-5' | | 5/4/22 | 0955 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PB-6 0-5' | | | 0936 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PB-8 0-5' | | | 0930 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PB-9 0-5' | | | 0922 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PB-11 0-5' | | | 0914 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PB-13 0-5' | | | 0910 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PB-5 0-5' | | | 0945 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BG-1 1.0' | | | 1335 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BG-1 3.0' | | | 1336 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BG-1 5.0' | | | 1337 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BG-1 10.0' | | | 1338 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BG-2 1.0' | | | 1400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

880-14444 Chain of Custody

TOTAL 12

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) |
|---|---|---|
| [signature] | 5/5/22 9:12 | [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 THERM# ID#8 :2
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

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Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

# Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-14444-1
SDG Number: 19-0180-07

**Login Number: 14444**
**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 11/21/2022 11:53:03 AM

## JOB DESCRIPTION

Culebra Bluff SE 5 32
SDG NUMBER 19-0180-07

## JOB NUMBER

880-21718-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

Released to Imaging: 6/25/2024 3:21:21 PM

my EOL

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Laboratory Job ID: 880-21718-1
SDG: 19-0180-07

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# Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| *- | LCS and/or LCSD is outside acceptance limits, low biased. |
| F1 | MS and/or MSD recovery exceeds control limits. |
| S1- | Surrogate recovery exceeds control limits, low biased. |
| U | Indicates the analyte was analyzed for but not detected. |

### 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 |
|---|---|
| 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. |
| 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: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Job ID: 880-21718-1

### Laboratory: Eurofins Midland

**Narrative**

**Job Narrative**
**880-21718-1**

**Receipt**
The samples were received on 11/17/2022 10:33 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 -4.1º C.

**Receipt Exceptions**
The following samples were received and analyzed from a bulk soil jar: BG-3, 1' (880-21718-1), BG-3, 3' (880-21718-2), BG-3, 5' (880-21718-3), BG-3, 10' (880-21718-4), BG-4, 1' (880-21718-5), BG-4, 3' (880-21718-6), BG-4, 5' (880-21718-7), BG-4, 10' (880-21718-8), BG-6, 1' (880-21718-9), BG-6, 3' (880-21718-10), BG-6, 5' (880-21718-11), BG-6, 10' (880-21718-12), BG-5, 1' (880-21718-13), BG-5, 3' (880-21718-14), BG-5, 5' (880-21718-15), BG-5, 10' (880-21718-16), BG-9, 1' (880-21718-17), BG-9, 3' (880-21718-18), BG-9, 5' (880-21718-19), BG-9, 10' (880-21718-20), BG-7, 1' (880-21718-21), BG-7, 3' (880-21718-22), BG-7, 5' (880-21718-23), BG-7, 10' (880-21718-24), BG-8, 1' (880-21718-25), BG-8, 3' (880-21718-26), BG-8, 5' (880-21718-27), BG-8, 10' (880-21718-28), BG-10, 1' (880-21718-29), BG-10, 3' (880-21718-30), BG-10, 5' (880-21718-31), BG-10, 10' (880-21718-32), BG-11, 1' (880-21718-33), BG-11, 3' (880-21718-34), BG-11, 5' (880-21718-35) and BG-11, 10' (880-21718-36).

**GC VOA**
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-39813 and analytical batch 880-39786 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BG-7, 1' (880-21718-21). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Benzene biased low in LCSD. Since only an acceptable LCS is required per the method, the data has been qualified and reported.
(LCSD 880-39813/2-A)

Method 8021B: CCV biased high for benzene, however an acceptable CCV was analyzed within the 12 hour window, therefore the data was qualified and reported.
(CCV 880-39772/20)

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

**GC Semi VOA**
Method 8015B NM: Surrogate recovery for the following samples were outside control limits: BG-7, 10' (880-21718-24). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015B NM: Surrogate recovery for the following samples were outside control limits: BG-11, 10' (880-21718-36). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

**General Chemistry**
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-39796 and analytical batch 880-39854 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**

# Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Job ID: 880-21718-1 (Continued)

### Laboratory: Eurofins Midland (Continued)

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: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-3, 1'

**Date Collected: 11/14/22 12:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-1**
**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 | | 11/17/22 12:37 | 11/17/22 21:44 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:44 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:44 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:44 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:44 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *92* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 21:44* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 21:44* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 11:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 11:07 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 11:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *107* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 11:07* | *1* |
| *o-Terphenyl (Surr)* | *101* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 11:07* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **964** | | 24.9 | | mg/Kg | | | 11/18/22 00:47 | 5 |

## Client Sample ID: BG-3, 3'

**Date Collected: 11/14/22 12:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-2**
**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 | | 11/17/22 12:37 | 11/17/22 22:05 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:05 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:05 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:05 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:05 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 22:05* | *1* |
| *1,4-Difluorobenzene (Surr)* | *94* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 22:05* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-3, 3'

**Date Collected: 11/14/22 12:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-2**
**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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 12:12 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 12:12 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 12:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *126* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 12:12* | *1* |
| *o-Terphenyl (Surr)* | *113* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 12:12* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **276** | | 4.96 | | mg/Kg | | | 11/18/22 01:04 | 1 |

## Client Sample ID: BG-3, 5'

**Date Collected: 11/14/22 12:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-3**
**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 | | 11/17/22 12:37 | 11/17/22 22:25 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:25 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:25 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:25 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:25 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *94* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 22:25* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 22:25* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 12:35 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 12:35 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-3, 5'

**Lab Sample ID: 880-21718-3**
**Matrix: Solid**
**Date Collected: 11/14/22 12:30**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:54 | 11/18/22 12:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *109* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 12:35* | *1* |
| *o-Terphenyl (Surr)* | *103* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 12:35* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **511** | | 5.00 | | mg/Kg | | | 11/18/22 01:10 | 1 |

## Client Sample ID: BG-3, 10'

**Lab Sample ID: 880-21718-4**
**Matrix: Solid**
**Date Collected: 11/14/22 12:45**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:37 | 11/17/22 22:46 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:46 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:46 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:46 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:46 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 22:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 22:46* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 22:46* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 12:56 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 12:56 | 1 |
| Oll Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 12:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *118* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 12:56* | *1* |
| *o-Terphenyl (Surr)* | *111* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 12:56* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1160** | | 25.2 | | mg/Kg | | | 11/18/22 01:16 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-4, 1'

**Date Collected: 11/14/22 13:00**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-5

**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 | | 11/17/22 12:37 | 11/17/22 23:06 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:06 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:06 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:06 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:06 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *82* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 23:06* | *1* |
| *1,4-Difluorobenzene (Surr)* | *84* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 23:06* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 13:18 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 13:18 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 13:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *113* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 13:18* | *1* |
| *o-Terphenyl (Surr)* | *103* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 13:18* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1370** | | 25.3 | | mg/Kg | | | 11/18/22 01:21 | 5 |

## Client Sample ID: BG-4, 3'

**Date Collected: 11/14/22 13:15**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-6

**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 | | 11/17/22 12:37 | 11/17/22 23:27 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:27 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:27 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:27 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:27 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *96* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 23:27* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 23:27* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-4, 3'

**Date Collected: 11/14/22 13:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-6**
**Matrix: Solid**

### 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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 13:39 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 13:39 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 13:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *127* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 13:39* | *1* |
| *o-Terphenyl (Surr)* | *124* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 13:39* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **379** | | 5.02 | | mg/Kg | | | 11/18/22 01:38 | 1 |

## Client Sample ID: BG-4, 5'

**Date Collected: 11/14/22 13:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-7**
**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 | | 11/17/22 12:37 | 11/17/22 23:47 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:47 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:47 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:47 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:47 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 23:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 23:47* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 23:47* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 14:02 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 14:02 | 1 |

Eurofins Midland

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-4, 5'

**Lab Sample ID: 880-21718-7**
**Matrix: Solid**
**Date Collected: 11/14/22 13:30**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:54 | 11/18/22 14:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *126* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 14:02* | *1* |
| *o-Terphenyl (Surr)* | *117* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 14:02* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **669** | | 4.98 | | mg/Kg | | | 11/18/22 01:44 | 1 |

## Client Sample ID: BG-4, 10'

**Lab Sample ID: 880-21718-8**
**Matrix: Solid**
**Date Collected: 11/14/22 13:45**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:37 | 11/18/22 00:07 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:07 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:07 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:07 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:07 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 00:07* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 00:07* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 14:24 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 14:24 | 1 |
| Oll Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 14:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *120* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 14:24* | *1* |
| *o-Terphenyl (Surr)* | *113* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 14:24* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **441** | | 4.97 | | mg/Kg | | | 11/18/22 01:50 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-6, 1'

**Date Collected: 11/14/22 14:00**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-9

**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 | | 11/17/22 12:37 | 11/18/22 00:28 | 1 |
| Toluene | <0.00200 | U | 0.00200 | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:28 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:28 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:28 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:28 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 00:28* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 00:28* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 14:46 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | mg/Kg | | 11/17/22 12:54 | 11/18/22 14:46 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | mg/Kg | | 11/17/22 12:54 | 11/18/22 14:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *121* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 14:46* | *1* |
| *o-Terphenyl (Surr)* | *113* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 14:46* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Chloride** | **226** | | 5.01 | mg/Kg | | | 11/18/22 01:55 | 1 |

## Client Sample ID: BG-6, 3'

**Date Collected: 11/14/22 14:15**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-10

**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 | | 11/17/22 12:37 | 11/18/22 00:48 | 1 |
| Toluene | <0.00201 | U | 0.00201 | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:48 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:48 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:48 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:48 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | mg/Kg | | 11/17/22 12:37 | 11/18/22 00:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 00:48* | *1* |
| *1,4-Difluorobenzene (Surr)* | *85* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 00:48* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-6, 3'

**Date Collected: 11/14/22 14:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-10**
**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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 15:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 15:07 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 15:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *101* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 15:07* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 15:07* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **581** | | 4.98 | | mg/Kg | | | 11/18/22 02:01 | 1 |

## Client Sample ID: BG-6, 5'

**Date Collected: 11/14/22 14:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-11**
**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 | | 11/17/22 12:37 | 11/18/22 02:10 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:10 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:10 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:10 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:10 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *94* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 02:10* | *1* |
| *1,4-Difluorobenzene (Surr)* | *87* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 02:10* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 15:51 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 15:51 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-6, 5'

**Lab Sample ID: 880-21718-11**
**Matrix: Solid**
**Date Collected: 11/14/22 14:30**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:54 | 11/18/22 15:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *111* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 15:51* | *1* |
| *o-Terphenyl (Surr)* | *105* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 15:51* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **684** | | 5.03 | | mg/Kg | | | 11/18/22 02:07 | 1 |

## Client Sample ID: BG-6, 10'

**Lab Sample ID: 880-21718-12**
**Matrix: Solid**
**Date Collected: 11/14/22 14:45**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:37 | 11/18/22 02:31 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:31 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:31 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:31 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:31 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 02:31* | *1* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 02:31* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 16:13 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 16:13 | 1 |
| Oll Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 16:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *130* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 16:13* | *1* |
| *o-Terphenyl (Surr)* | *123* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 16:13* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **631** | | 5.02 | | mg/Kg | | | 11/18/22 02:24 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-5, 1'

**Date Collected: 11/15/22 09:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-13**
**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 | | 11/17/22 12:37 | 11/18/22 02:51 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:51 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:51 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:51 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:51 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 02:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *86* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 02:51* | *1* |
| *1,4-Difluorobenzene (Surr)* | *78* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 02:51* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 16:35 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 16:35 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 16:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *109* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 16:35* | *1* |
| *o-Terphenyl (Surr)* | *101* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 16:35* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **280** | | 5.04 | | mg/Kg | | | 11/18/22 02:29 | 1 |

## Client Sample ID: BG-5, 3'

**Date Collected: 11/15/22 09:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-14**
**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 | | 11/17/22 12:37 | 11/18/22 03:12 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:12 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:12 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:12 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:12 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 03:12* | *1* |
| *1,4-Difluorobenzene (Surr)* | *86* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 03:12* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-5, 3'

**Date Collected: 11/15/22 09:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-14**
**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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 16:57 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 16:57 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 16:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *126* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 16:57* | *1* |
| *o-Terphenyl (Surr)* | *120* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 16:57* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **190** | | 4.97 | | mg/Kg | | | 11/18/22 02:46 | 1 |

## Client Sample ID: BG-5, 5'

**Date Collected: 11/15/22 10:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-15**
**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 | | 11/17/22 12:37 | 11/18/22 03:32 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:32 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:32 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:32 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:32 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *88* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 03:32* | *1* |
| *1,4-Difluorobenzene (Surr)* | *89* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 03:32* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 17:18 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 17:18 | 1 |

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# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-5, 5'

**Lab Sample ID: 880-21718-15**
**Matrix: Solid**
**Date Collected: 11/15/22 10:00**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:54 | 11/18/22 17:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *109* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 17:18* | *1* |
| *o-Terphenyl (Surr)* | *103* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 17:18* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **248** | | 5.05 | | mg/Kg | | | 11/18/22 02:52 | 1 |

## Client Sample ID: BG-5, 10'

**Lab Sample ID: 880-21718-16**
**Matrix: Solid**
**Date Collected: 11/15/22 10:15**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:37 | 11/18/22 03:53 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:53 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:53 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:53 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:53 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 03:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 03:53* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 03:53* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 17:41 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 17:41 | 1 |
| Oll Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 17:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 17:41* | *1* |
| *o-Terphenyl (Surr)* | *96* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 17:41* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **423** | | 5.04 | | mg/Kg | | | 11/18/22 02:58 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-9, 1'

**Lab Sample ID: 880-21718-17**
**Matrix: Solid**
**Date Collected: 11/15/22 10:30**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:37 | 11/18/22 04:13 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:13 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:13 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:13 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:13 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 04:13* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 04:13* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 18:02 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 18:02 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 18:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *116* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 18:02* | *1* |
| *o-Terphenyl (Surr)* | *109* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 18:02* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **499** | | 4.99 | | mg/Kg | | | 11/18/22 03:03 | 1 |

## Client Sample ID: BG-9, 3'

**Lab Sample ID: 880-21718-18**
**Matrix: Solid**
**Date Collected: 11/15/22 10:45**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:37 | 11/18/22 04:33 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:33 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:33 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:33 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:33 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 04:33* | *1* |
| *1,4-Difluorobenzene (Surr)* | *82* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 04:33* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-9, 3'

**Date Collected: 11/15/22 10:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-18**
**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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 18:23 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 18:23 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 18:23 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *105* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 18:23* | *1* |
| *o-Terphenyl (Surr)* | *100* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 18:23* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **464** | | 5.00 | | mg/Kg | | | 11/18/22 03:09 | 1 |

## Client Sample ID: BG-9, 5'

**Date Collected: 11/15/22 11:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-19**
**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 | | 11/17/22 12:37 | 11/18/22 04:54 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:54 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:54 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:54 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:54 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 04:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 04:54* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 04:54* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 18:45 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 18:45 | 1 |

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# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-9, 5'

**Lab Sample ID: 880-21718-19**
**Matrix: Solid**
**Date Collected: 11/15/22 11:00**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:54 | 11/18/22 18:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *98* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 18:45* | *1* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 18:45* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **167** | | 4.97 | | mg/Kg | | | 11/18/22 03:14 | 1 |

## Client Sample ID: BG-9, 10'

**Lab Sample ID: 880-21718-20**
**Matrix: Solid**
**Date Collected: 11/15/22 11:15**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:37 | 11/18/22 05:14 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 05:14 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 05:14 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 05:14 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 05:14 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:37 | 11/18/22 05:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 05:14* | *1* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* | *11/17/22 12:37* | *11/18/22 05:14* | *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 | | | 11/18/22 11:59 | 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 | | | 11/21/22 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 | | 11/17/22 12:54 | 11/18/22 19:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 19:07 | 1 |
| Oll Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 12:54 | 11/18/22 19:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *117* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 19:07* | *1* |
| *o-Terphenyl (Surr)* | *109* | | *70 - 130* | *11/17/22 12:54* | *11/18/22 19:07* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **671** | | 4.96 | | mg/Kg | | | 11/18/22 03:20 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-7, 1'

**Date Collected: 11/15/22 11:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-21**
**Matrix: Solid**

### Method: SW846 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U *- F1 | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:51 | 1 |
| Toluene | <0.00201 | U F1 | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:51 | 1 |
| Ethylbenzene | <0.00201 | U F1 | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:51 | 1 |
| m,p-Xylenes | <0.00402 | U F1 | 0.00402 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:51 | 1 |
| o-Xylene | <0.00201 | U F1 | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:51 | 1 |
| Xylenes, Total | <0.00402 | U F1 | 0.00402 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *60* | *S1-* | *70 - 130* | *11/17/22 12:44* | *11/18/22 02:51* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 02:51* | *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 | | | 11/18/22 11:31 | 1 |

### Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **250** | | 50.0 | | mg/Kg | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/17/22 21:13 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **250** | | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 21:13 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 21:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *110* | | *70 - 130* | *11/17/22 13:58* | *11/17/22 21:13* | *1* |
| *o-Terphenyl (Surr)* | *117* | | *70 - 130* | *11/17/22 13:58* | *11/17/22 21:13* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **866** | | 4.95 | | mg/Kg | | | 11/18/22 08:50 | 1 |

## Client Sample ID: BG-7, 3'

**Date Collected: 11/15/22 11:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-22**
**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 | | 11/17/22 12:44 | 11/18/22 03:11 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:11 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:11 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:11 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:11 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:11 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *93* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 03:11* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 03:11* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-7, 3'

**Date Collected: 11/15/22 11:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-22**
**Matrix: Solid**

### 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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/17/22 22:18 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 22:18 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 22:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *108* | | *70 - 130* | *11/17/22 13:58* | *11/17/22 22:18* | *1* |
| *o-Terphenyl (Surr)* | *115* | | *70 - 130* | *11/17/22 13:58* | *11/17/22 22:18* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **431** | | 4.99 | | mg/Kg | | | 11/18/22 08:57 | 1 |

## Client Sample ID: BG-7, 5'

**Date Collected: 11/15/22 12:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-23**
**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 | | 11/17/22 12:44 | 11/18/22 03:31 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:31 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:31 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:31 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:31 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 03:31* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 03:31* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/17/22 22:40 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 22:40 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-7, 5'

**Lab Sample ID: 880-21718-23**
**Matrix: Solid**
**Date Collected: 11/15/22 12:00**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 13:58 | 11/17/22 22:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *118* | | *70 - 130* | *11/17/22 13:58* | *11/17/22 22:40* | *1* |
| *o-Terphenyl (Surr)* | *126* | | *70 - 130* | *11/17/22 13:58* | *11/17/22 22:40* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **485** | | 24.9 | | mg/Kg | | | 11/18/22 09:18 | 5 |

## Client Sample ID: BG-7, 10'

**Lab Sample ID: 880-21718-24**
**Matrix: Solid**
**Date Collected: 11/15/22 12:15**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:44 | 11/18/22 03:52 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:52 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:52 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:52 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:52 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 03:52 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 03:52* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 03:52* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/17/22 23:02 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 23:02 | 1 |
| Oll Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 23:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *132* | *S1+* | *70 - 130* | *11/17/22 13:58* | *11/17/22 23:02* | *1* |
| *o-Terphenyl (Surr)* | *141* | *S1+* | *70 - 130* | *11/17/22 13:58* | *11/17/22 23:02* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **809** | | 5.00 | | mg/Kg | | | 11/18/22 09:26 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-8, 1'

**Date Collected: 11/15/22 12:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-25**
**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 | | 11/17/22 12:44 | 11/18/22 04:12 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:12 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:12 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:12 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:12 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 04:12* | *1* |
| *1,4-Difluorobenzene (Surr)* | *110* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 04:12* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/17/22 23:24 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 23:24 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 23:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *117* | | *70 - 130* | *11/17/22 13:58* | *11/17/22 23:24* | *1* |
| *o-Terphenyl (Surr)* | *125* | | *70 - 130* | *11/17/22 13:58* | *11/17/22 23:24* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **197** | | 4.99 | | mg/Kg | | | 11/18/22 09:33 | 1 |

## Client Sample ID: BG-8, 3'

**Date Collected: 11/15/22 12:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-26**
**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 | | 11/17/22 12:44 | 11/18/22 04:33 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:33 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:33 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:33 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:33 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *74* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 04:33* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 04:33* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-8, 3'

**Date Collected: 11/15/22 12:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-26**
**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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/17/22 23:45 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 23:45 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 23:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *121* | | *70 - 130* | *11/17/22 13:58* | *11/17/22 23:45* | *1* |
| *o-Terphenyl (Surr)* | *129* | | *70 - 130* | *11/17/22 13:58* | *11/17/22 23:45* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **208** | | 4.98 | | mg/Kg | | | 11/18/22 09:40 | 1 |

## Client Sample ID: BG-8, 5'

**Date Collected: 11/15/22 13:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-27**
**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 | | 11/17/22 12:44 | 11/18/22 04:53 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:53 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:53 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:53 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:53 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 04:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *85* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 04:53* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 04:53* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/18/22 00:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 00:07 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-8, 5'

**Lab Sample ID: 880-21718-27**
**Matrix: Solid**
**Date Collected: 11/15/22 13:00**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 13:58 | 11/18/22 00:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 00:07* | *1* |
| *o-Terphenyl (Surr)* | *100* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 00:07* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **166** | | 4.95 | | mg/Kg | | | 11/18/22 09:47 | 1 |

## Client Sample ID: BG-8, 10'

**Lab Sample ID: 880-21718-28**
**Matrix: Solid**
**Date Collected: 11/15/22 13:15**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:44 | 11/18/22 05:13 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:13 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:13 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:13 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:13 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 05:13* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 05:13* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/18/22 00:29 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 00:29 | 1 |
| Oll Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 00:29 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *100* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 00:29* | *1* |
| *o-Terphenyl (Surr)* | *108* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 00:29* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1050** | | 5.05 | | mg/Kg | | | 11/18/22 09:54 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-10, 1'

**Date Collected: 11/15/22 13:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-29**
**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 | | 11/17/22 12:44 | 11/18/22 05:34 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:34 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:34 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:34 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:34 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:34 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *73* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 05:34* | *1* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 05:34* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/18/22 00:51 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 00:51 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 00:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 00:51* | *1* |
| *o-Terphenyl (Surr)* | *110* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 00:51* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **28.1** | | 4.98 | | mg/Kg | | | 11/18/22 10:15 | 1 |

## Client Sample ID: BG-10, 3'

**Date Collected: 11/15/22 13:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-30**
**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 | | 11/17/22 12:44 | 11/18/22 05:54 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:54 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:54 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:54 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:54 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 05:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *85* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 05:54* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 05:54* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-10, 3'

**Date Collected: 11/15/22 13:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-30**
**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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/18/22 01:13 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 01:13 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 01:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *97* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 01:13* | *1* |
| *o-Terphenyl (Surr)* | *101* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 01:13* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **21.2** | | 5.00 | | mg/Kg | | | 11/18/22 10:23 | 1 |

## Client Sample ID: BG-10, 5'

**Date Collected: 11/15/22 14:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-31**
**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 | | 11/17/22 12:44 | 11/18/22 07:44 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 07:44 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 07:44 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 07:44 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 07:44 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 07:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *81* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 07:44* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 07:44* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/18/22 01:57 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 01:57 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-10, 5'

**Lab Sample ID: 880-21718-31**
**Matrix: Solid**
**Date Collected: 11/15/22 14:00**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 13:58 | 11/18/22 01:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *104* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 01:57* | *1* |
| *o-Terphenyl (Surr)* | *109* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 01:57* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **44.1** | | 4.95 | | mg/Kg | | | 11/18/22 10:44 | 1 |

## Client Sample ID: BG-10, 10'

**Lab Sample ID: 880-21718-32**
**Matrix: Solid**
**Date Collected: 11/15/22 14:15**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:44 | 11/18/22 08:05 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 08:05 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 08:05 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 08:05 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 08:05 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 08:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 08:05* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 08:05* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/18/22 02:19 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 02:19 | 1 |
| Oll Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 02:19 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *114* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 02:19* | *1* |
| *o-Terphenyl (Surr)* | *121* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 02:19* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **428** | | 5.01 | | mg/Kg | | | 11/18/22 10:51 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-11, 1'

**Date Collected: 11/15/22 14:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-33**
**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 | | 11/17/22 12:44 | 11/18/22 08:54 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 08:54 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 08:54 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 08:54 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 08:54 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 08:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *92* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 08:54* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 08:54* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/18/22 02:40 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 02:40 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 02:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *100* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 02:40* | *1* |
| *o-Terphenyl (Surr)* | *106* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 02:40* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **89.4** | | 4.98 | | mg/Kg | | | 11/18/22 10:58 | 1 |

## Client Sample ID: BG-11, 3'

**Date Collected: 11/15/22 14:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-34**
**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 | | 11/17/22 12:44 | 11/18/22 09:15 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:15 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:15 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:15 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:15 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *92* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 09:15* | *1* |
| *1,4-Difluorobenzene (Surr)* | *110* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 09:15* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-11, 3'

**Date Collected: 11/15/22 14:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-34**
**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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/18/22 03:03 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 03:03 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 03:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *97* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 03:03* | *1* |
| *o-Terphenyl (Surr)* | *100* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 03:03* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **64.7** | | 5.00 | | mg/Kg | | | 11/18/22 11:05 | 1 |

## Client Sample ID: BG-11, 5'

**Date Collected: 11/15/22 15:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-35**
**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 | | 11/17/22 12:44 | 11/18/22 09:35 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:35 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:35 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:35 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:35 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 09:35* | *1* |
| *1,4-Difluorobenzene (Surr)* | *115* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 09:35* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/18/22 03:25 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 03:25 | 1 |

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# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-11, 5'

**Lab Sample ID: 880-21718-35**
**Matrix: Solid**
**Date Collected: 11/15/22 15:00**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 13:58 | 11/18/22 03:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *121* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 03:25* | *1* |
| *o-Terphenyl (Surr)* | *129* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 03:25* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **152** | | 5.00 | | mg/Kg | | | 11/18/22 11:12 | 1 |

## Client Sample ID: BG-11, 10'

**Lab Sample ID: 880-21718-36**
**Matrix: Solid**
**Date Collected: 11/15/22 15:15**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 12:44 | 11/18/22 09:56 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:56 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:56 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:56 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:56 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 09:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *74* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 09:56* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 09:56* | *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 | | | 11/18/22 11:31 | 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 | | | 11/18/22 10:34 | 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 | | 11/17/22 13:58 | 11/18/22 03:46 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 03:46 | 1 |
| Oll Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 11/17/22 13:58 | 11/18/22 03:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *122* | | *70 - 130* | *11/17/22 13:58* | *11/18/22 03:46* | *1* |
| *o-Terphenyl (Surr)* | *135* | *S1+* | *70 - 130* | *11/17/22 13:58* | *11/18/22 03:46* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **570** | | 4.96 | | mg/Kg | | | 11/18/22 11:19 | 1 |

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## 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) |
| 880-21718-1 | BG-3, 1' | 92 | 93 |
| 880-21718-1 MS | BG-3, 1' | 101 | 119 |
| 880-21718-1 MSD | BG-3, 1' | 95 | 116 |
| 880-21718-2 | BG-3, 3' | 101 | 94 |
| 880-21718-3 | BG-3, 5' | 94 | 97 |
| 880-21718-4 | BG-3, 10' | 90 | 100 |
| 880-21718-5 | BG-4, 1' | 82 | 84 |
| 880-21718-6 | BG-4, 3' | 96 | 103 |
| 880-21718-7 | BG-4, 5' | 95 | 99 |
| 880-21718-8 | BG-4, 10' | 97 | 98 |
| 880-21718-9 | BG-6, 1' | 95 | 97 |
| 880-21718-10 | BG-6, 3' | 87 | 85 |
| 880-21718-11 | BG-6, 5' | 94 | 87 |
| 880-21718-12 | BG-6, 10' | 97 | 92 |
| 880-21718-13 | BG-5, 1' | 86 | 78 |
| 880-21718-14 | BG-5, 3' | 90 | 86 |
| 880-21718-15 | BG-5, 5' | 88 | 89 |
| 880-21718-16 | BG-5, 10' | 99 | 100 |
| 880-21718-17 | BG-9, 1' | 95 | 97 |
| 880-21718-18 | BG-9, 3' | 95 | 82 |
| 880-21718-19 | BG-9, 5' | 95 | 100 |
| 880-21718-20 | BG-9, 10' | 90 | 92 |
| 880-21718-21 | BG-7, 1' | 60 S1- | 107 |
| 880-21718-21 MS | BG-7, 1' | 95 | 103 |
| 880-21718-21 MSD | BG-7, 1' | 96 | 103 |
| 880-21718-22 | BG-7, 3' | 93 | 105 |
| 880-21718-23 | BG-7, 5' | 95 | 105 |
| 880-21718-24 | BG-7, 10' | 87 | 103 |
| 880-21718-25 | BG-8, 1' | 95 | 110 |
| 880-21718-26 | BG-8, 3' | 74 | 104 |
| 880-21718-27 | BG-8, 5' | 85 | 104 |
| 880-21718-28 | BG-8, 10' | 97 | 97 |
| 880-21718-29 | BG-10, 1' | 73 | 109 |
| 880-21718-30 | BG-10, 3' | 85 | 97 |
| 880-21718-31 | BG-10, 5' | 81 | 107 |
| 880-21718-32 | BG-10, 10' | 97 | 104 |
| 880-21718-33 | BG-11, 1' | 92 | 105 |
| 880-21718-34 | BG-11, 3' | 92 | 110 |
| 880-21718-35 | BG-11, 5' | 100 | 115 |
| 880-21718-36 | BG-11, 10' | 74 | 103 |
| LCS 880-39811/1-A | Lab Control Sample | 104 | 115 |
| LCS 880-39813/1-A | Lab Control Sample | 95 | 107 |
| LCSD 880-39811/2-A | Lab Control Sample Dup | 99 | 117 |
| LCSD 880-39813/2-A | Lab Control Sample Dup | 70 | 95 |
| MB 880-39771/5-A | Method Blank | 86 | 103 |
| MB 880-39780/5-A | Method Blank | 81 | 100 |
| MB 880-39811/5-A | Method Blank | 85 | 91 |
| MB 880-39813/5-A | Method Blank | 75 | 104 |

**Surrogate Legend**

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

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) |
| 880-21718-1 | BG-3, 1' | 107 | 101 |
| 880-21718-1 MS | BG-3, 1' | 109 | 96 |
| 880-21718-1 MSD | BG-3, 1' | 104 | 91 |
| 880-21718-2 | BG-3, 3' | 126 | 113 |
| 880-21718-3 | BG-3, 5' | 109 | 103 |
| 880-21718-4 | BG-3, 10' | 118 | 111 |
| 880-21718-5 | BG-4, 1' | 113 | 103 |
| 880-21718-6 | BG-4, 3' | 127 | 124 |
| 880-21718-7 | BG-4, 5' | 126 | 117 |
| 880-21718-8 | BG-4, 10' | 120 | 113 |
| 880-21718-9 | BG-6, 1' | 121 | 113 |
| 880-21718-10 | BG-6, 3' | 101 | 95 |
| 880-21718-11 | BG-6, 5' | 111 | 105 |
| 880-21718-12 | BG-6, 10' | 130 | 123 |
| 880-21718-13 | BG-5, 1' | 109 | 101 |
| 880-21718-14 | BG-5, 3' | 126 | 120 |
| 880-21718-15 | BG-5, 5' | 109 | 103 |
| 880-21718-16 | BG-5, 10' | 103 | 96 |
| 880-21718-17 | BG-9, 1' | 116 | 109 |
| 880-21718-18 | BG-9, 3' | 105 | 100 |
| 880-21718-19 | BG-9, 5' | 98 | 93 |
| 880-21718-20 | BG-9, 10' | 117 | 109 |
| 880-21718-21 | BG-7, 1' | 110 | 117 |
| 880-21718-21 MS | BG-7, 1' | 102 | 95 |
| 880-21718-21 MSD | BG-7, 1' | 103 | 95 |
| 880-21718-22 | BG-7, 3' | 108 | 115 |
| 880-21718-23 | BG-7, 5' | 118 | 126 |
| 880-21718-24 | BG-7, 10' | 132 S1+ | 141 S1+ |
| 880-21718-25 | BG-8, 1' | 117 | 125 |
| 880-21718-26 | BG-8, 3' | 121 | 129 |
| 880-21718-27 | BG-8, 5' | 95 | 100 |
| 880-21718-28 | BG-8, 10' | 100 | 108 |
| 880-21718-29 | BG-10, 1' | 103 | 110 |
| 880-21718-30 | BG-10, 3' | 97 | 101 |
| 880-21718-31 | BG-10, 5' | 104 | 109 |
| 880-21718-32 | BG-10, 10' | 114 | 121 |
| 880-21718-33 | BG-11, 1' | 100 | 106 |
| 880-21718-34 | BG-11, 3' | 97 | 100 |
| 880-21718-35 | BG-11, 5' | 121 | 129 |
| 880-21718-36 | BG-11, 10' | 122 | 135 S1+ |
| LCS 880-39815/2-A | Lab Control Sample | 111 | 108 |
| LCS 880-39823/2-A | Lab Control Sample | 110 | 120 |
| LCSD 880-39815/3-A | Lab Control Sample Dup | 116 | 113 |
| LCSD 880-39823/3-A | Lab Control Sample Dup | 109 | 118 |
| MB 880-39815/1-A | Method Blank | 101 | 98 |
| MB 880-39823/1-A | Method Blank | 98 | 107 |

**Surrogate Legend**

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

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

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-39771/5-A**
**Matrix: Solid**
**Analysis Batch: 39772**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39771**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 07:54 | 11/17/22 10:49 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 07:54 | 11/17/22 10:49 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 07:54 | 11/17/22 10:49 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 07:54 | 11/17/22 10:49 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 07:54 | 11/17/22 10:49 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 07:54 | 11/17/22 10:49 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *86* | | *70 - 130* | *11/17/22 07:54* | *11/17/22 10:49* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *11/17/22 07:54* | *11/17/22 10:49* | *1* |

**Lab Sample ID: MB 880-39780/5-A**
**Matrix: Solid**
**Analysis Batch: 39786**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39780**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 10:35 | 11/17/22 14:48 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 10:35 | 11/17/22 14:48 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 10:35 | 11/17/22 14:48 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 10:35 | 11/17/22 14:48 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 10:35 | 11/17/22 14:48 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 10:35 | 11/17/22 14:48 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *81* | | *70 - 130* | *11/17/22 10:35* | *11/17/22 14:48* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *11/17/22 10:35* | *11/17/22 14:48* | *1* |

**Lab Sample ID: MB 880-39811/5-A**
**Matrix: Solid**
**Analysis Batch: 39772**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39811**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:23 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:23 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:23 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:23 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:23 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 12:37 | 11/17/22 21:23 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *85* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 21:23* | *1* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *11/17/22 12:37* | *11/17/22 21:23* | *1* |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

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

**Lab Sample ID: LCS 880-39811/1-A**
**Matrix: Solid**
**Analysis Batch: 39772**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 39811**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1056 | | mg/Kg | | 106 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.09606 | | mg/Kg | | 96 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.09752 | | mg/Kg | | 98 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.2032 | | mg/Kg | | 102 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.1014 | | mg/Kg | | 101 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *115* | | *70 - 130* |

**Lab Sample ID: LCSD 880-39811/2-A**
**Matrix: Solid**
**Analysis Batch: 39772**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 39811**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1142 | | mg/Kg | | 114 | 70 - 130 | 8 | 35 |
| Toluene | | | 0.100 | 0.09772 | | mg/Kg | | 98 | 70 - 130 | 2 | 35 |
| Ethylbenzene | | | 0.100 | 0.09608 | | mg/Kg | | 96 | 70 - 130 | 1 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1977 | | mg/Kg | | 99 | 70 - 130 | 3 | 35 |
| o-Xylene | | | 0.100 | 0.09843 | | mg/Kg | | 98 | 70 - 130 | 3 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *117* | | *70 - 130* |

**Lab Sample ID: 880-21718-1 MS**
**Matrix: Solid**
**Analysis Batch: 39772**

**Client Sample ID: BG-3, 1'**
**Prep Type: Total/NA**
**Prep Batch: 39811**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.0996 | 0.09772 | | mg/Kg | | 98 | 70 - 130 | | |
| Toluene | <0.00201 | U | 0.0996 | 0.08073 | | mg/Kg | | 81 | 70 - 130 | | |
| Ethylbenzene | <0.00201 | U | 0.0996 | 0.07765 | | mg/Kg | | 78 | 70 - 130 | | |
| m,p-Xylenes | <0.00402 | U | 0.199 | 0.1557 | | mg/Kg | | 78 | 70 - 130 | | |
| o-Xylene | <0.00201 | U | 0.0996 | 0.07636 | | mg/Kg | | 77 | 70 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *119* | | *70 - 130* |

**Lab Sample ID: 880-21718-1 MSD**
**Matrix: Solid**
**Analysis Batch: 39772**

**Client Sample ID: BG-3, 1'**
**Prep Type: Total/NA**
**Prep Batch: 39811**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.101 | 0.09454 | | mg/Kg | | 94 | 70 - 130 | 3 | 35 |
| Toluene | <0.00201 | U | 0.101 | 0.07890 | | mg/Kg | | 78 | 70 - 130 | 2 | 35 |
| Ethylbenzene | <0.00201 | U | 0.101 | 0.07515 | | mg/Kg | | 75 | 70 - 130 | 3 | 35 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-21718-1 MSD** — **Client Sample ID: BG-3, 1'**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39772** — **Prep Batch: 39811**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| m,p-Xylenes | <0.00402 | U | 0.202 | 0.1524 | | mg/Kg | | 76 | 70 - 130 | 2 | 35 |
| o-Xylene | <0.00201 | U | 0.101 | 0.07469 | | mg/Kg | | 74 | 70 - 130 | 2 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *116* | | *70 - 130* |

**Lab Sample ID: MB 880-39813/5-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39786** — **Prep Batch: 39813**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:22 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:22 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:22 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:22 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:22 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 12:44 | 11/18/22 02:22 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *75* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 02:22* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *11/17/22 12:44* | *11/18/22 02:22* | *1* |

**Lab Sample ID: LCS 880-39813/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39786** — **Prep Batch: 39813**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.08797 | | mg/Kg | | 88 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.1054 | | mg/Kg | | 105 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.1042 | | mg/Kg | | 104 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.1892 | | mg/Kg | | 95 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.09392 | | mg/Kg | | 94 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* |

**Lab Sample ID: LCSD 880-39813/2-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39786** — **Prep Batch: 39813**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.06623 | *- | mg/Kg | | 66 | 70 - 130 | 28 | 35 |
| Toluene | | | 0.100 | 0.08448 | | mg/Kg | | 84 | 70 - 130 | 22 | 35 |
| Ethylbenzene | | | 0.100 | 0.08458 | | mg/Kg | | 85 | 70 - 130 | 21 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1516 | | mg/Kg | | 76 | 70 - 130 | 22 | 35 |
| o-Xylene | | | 0.100 | 0.07332 | | mg/Kg | | 73 | 70 - 130 | 25 | 35 |

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# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

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

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 70 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 95 | | 70 - 130 |

**Lab Sample ID: 880-21718-21 MS** — **Client Sample ID: BG-7, 1'**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39786** — **Prep Batch: 39813**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U *- F1 | 0.0996 | 0.05967 | F1 | mg/Kg | | 59 | 70 - 130 |
| Toluene | <0.00201 | U F1 | 0.0996 | 0.06701 | F1 | mg/Kg | | 67 | 70 - 130 |
| Ethylbenzene | <0.00201 | U F1 | 0.0996 | 0.06509 | F1 | mg/Kg | | 65 | 70 - 130 |
| m,p-Xylenes | <0.00402 | U F1 | 0.199 | 0.1177 | F1 | mg/Kg | | 59 | 70 - 130 |
| o-Xylene | <0.00201 | U F1 | 0.0996 | 0.05880 | F1 | mg/Kg | | 58 | 70 - 130 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 95 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 103 | | 70 - 130 |

**Lab Sample ID: 880-21718-21 MSD** — **Client Sample ID: BG-7, 1'**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39786** — **Prep Batch: 39813**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U *- F1 | 0.0994 | 0.07777 | | mg/Kg | | 77 | 70 - 130 | 26 | 35 |
| Toluene | <0.00201 | U F1 | 0.0994 | 0.08235 | | mg/Kg | | 83 | 70 - 130 | 21 | 35 |
| Ethylbenzene | <0.00201 | U F1 | 0.0994 | 0.07453 | | mg/Kg | | 75 | 70 - 130 | 14 | 35 |
| m,p-Xylenes | <0.00402 | U F1 | 0.199 | 0.1326 | F1 | mg/Kg | | 66 | 70 - 130 | 12 | 35 |
| o-Xylene | <0.00201 | U F1 | 0.0994 | 0.06544 | F1 | mg/Kg | | 65 | 70 - 130 | 11 | 35 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 96 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 103 | | 70 - 130 |

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

**Lab Sample ID: MB 880-39815/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39874** — **Prep Batch: 39815**

| 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 | | 11/17/22 12:54 | 11/18/22 08:33 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | mg/Kg | | 11/17/22 12:54 | 11/18/22 08:33 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | mg/Kg | | 11/17/22 12:54 | 11/18/22 08:33 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane (Surr) | 101 | | 70 - 130 | 11/17/22 12:54 | 11/18/22 08:33 | 1 |
| o-Terphenyl (Surr) | 98 | | 70 - 130 | 11/17/22 12:54 | 11/18/22 08:33 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

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

**Lab Sample ID: LCS 880-39815/2-A**
**Matrix: Solid**
**Analysis Batch: 39874**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 39815**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 810.8 | | mg/Kg | | 81 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 980.3 | | mg/Kg | | 98 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *111* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *108* | | *70 - 130* |

**Lab Sample ID: LCSD 880-39815/3-A**
**Matrix: Solid**
**Analysis Batch: 39874**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 39815**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 958.5 | | mg/Kg | | 96 | 70 - 130 | 17 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 1025 | | mg/Kg | | 102 | 70 - 130 | 4 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *116* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *113* | | *70 - 130* |

**Lab Sample ID: 880-21718-1 MS**
**Matrix: Solid**
**Analysis Batch: 39874**

**Client Sample ID: BG-3, 1'**
**Prep Type: Total/NA**
**Prep Batch: 39815**

| 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 | 1122 | | mg/Kg | | 112 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 999 | 1163 | | mg/Kg | | 114 | 70 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *109* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *96* | | *70 - 130* |

**Lab Sample ID: 880-21718-1 MSD**
**Matrix: Solid**
**Analysis Batch: 39874**

**Client Sample ID: BG-3, 1'**
**Prep Type: Total/NA**
**Prep Batch: 39815**

| 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 | 997 | 945.9 | | mg/Kg | | 95 | 70 - 130 | 17 | 20 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 997 | 1117 | | mg/Kg | | 110 | 70 - 130 | 4 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *104* | | *70 - 130* |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-21718-1 MSD**
**Matrix: Solid**
**Analysis Batch: 39874**

**Client Sample ID: BG-3, 1'**
**Prep Type: Total/NA**
**Prep Batch: 39815**

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| o-Terphenyl (Surr) | 91 | | 70 - 130 |

**Lab Sample ID: MB 880-39823/1-A**
**Matrix: Solid**
**Analysis Batch: 39764**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39823**

| 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 | | 11/17/22 13:58 | 11/17/22 20:09 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 20:09 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:58 | 11/17/22 20:09 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane (Surr) | 98 | | 70 - 130 | 11/17/22 13:58 | 11/17/22 20:09 | 1 |
| o-Terphenyl (Surr) | 107 | | 70 - 130 | 11/17/22 13:58 | 11/17/22 20:09 | 1 |

**Lab Sample ID: LCS 880-39823/2-A**
**Matrix: Solid**
**Analysis Batch: 39764**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 39823**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 908.1 | | mg/Kg | | 91 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 994.5 | | mg/Kg | | 99 | 70 - 130 | | |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 110 | | 70 - 130 |
| o-Terphenyl (Surr) | 120 | | 70 - 130 |

**Lab Sample ID: LCSD 880-39823/3-A**
**Matrix: Solid**
**Analysis Batch: 39764**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 39823**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 910.7 | | mg/Kg | | 91 | 70 - 130 | 0 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 992.4 | | mg/Kg | | 99 | 70 - 130 | 0 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 109 | | 70 - 130 |
| o-Terphenyl (Surr) | 118 | | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-21718-21 MS**
**Matrix: Solid**
**Analysis Batch: 39764**

**Client Sample ID: BG-7, 1'**
**Prep Type: Total/NA**
**Prep Batch: 39823**

| 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 | 1033 | | mg/Kg | | 102 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | 250 | | 999 | 1388 | | mg/Kg | | 114 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *102* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* |

**Lab Sample ID: 880-21718-21 MSD**
**Matrix: Solid**
**Analysis Batch: 39764**

**Client Sample ID: BG-7, 1'**
**Prep Type: Total/NA**
**Prep Batch: 39823**

| 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 | 997 | 1053 | | mg/Kg | | 104 | 70 - 130 | 2 | 20 |
| Diesel Range Organics (Over C10-C28) | 250 | | 997 | 1396 | | mg/Kg | | 115 | 70 - 130 | 1 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-39796/1-A**
**Matrix: Solid**
**Analysis Batch: 39854**

**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 | | | 11/18/22 07:53 | 1 |

**Lab Sample ID: LCS 880-39796/2-A**
**Matrix: Solid**
**Analysis Batch: 39854**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 263.9 | | mg/Kg | | 106 | 90 - 110 |

**Lab Sample ID: LCSD 880-39796/3-A**
**Matrix: Solid**
**Analysis Batch: 39854**

**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 | 259.3 | | mg/Kg | | 104 | 90 - 110 | 2 | 20 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 880-21718-28 MS**
**Matrix: Solid**
**Analysis Batch: 39854**

**Client Sample ID: BG-8, 10'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1050 | | 253 | 1240 | 4 | mg/Kg | | 77 | 90 - 110 |

**Lab Sample ID: 880-21718-28 MSD**
**Matrix: Solid**
**Analysis Batch: 39854**

**Client Sample ID: BG-8, 10'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1050 | | 253 | 1264 | 4 | mg/Kg | | 86 | 90 - 110 | 2 | 20 |

**Lab Sample ID: MB 880-39797/1-A**
**Matrix: Solid**
**Analysis Batch: 39858**

**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 | | | 11/18/22 00:31 | 1 |

**Lab Sample ID: LCS 880-39797/2-A**
**Matrix: Solid**
**Analysis Batch: 39858**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 257.4 | | mg/Kg | | 103 | 90 - 110 |

**Lab Sample ID: LCSD 880-39797/3-A**
**Matrix: Solid**
**Analysis Batch: 39858**

**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 | 258.8 | | mg/Kg | | 104 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 880-21718-1 MS**
**Matrix: Solid**
**Analysis Batch: 39858**

**Client Sample ID: BG-3, 1'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 964 | | 1240 | 2267 | | mg/Kg | | 105 | 90 - 110 |

**Lab Sample ID: 880-21718-1 MSD**
**Matrix: Solid**
**Analysis Batch: 39858**

**Client Sample ID: BG-3, 1'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 964 | | 1240 | 2287 | | mg/Kg | | 106 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 880-21718-11 MS**
**Matrix: Solid**
**Analysis Batch: 39858**

**Client Sample ID: BG-6, 5'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 684 | | 252 | 916.8 | | mg/Kg | | 93 | 90 - 110 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: 880-21718-11 MSD**
**Matrix: Solid**
**Analysis Batch: 39858**

**Client Sample ID: BG-6, 5'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 684 | | 252 | 914.1 | | mg/Kg | | 92 | 90 - 110 | 0 | 20 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## GC VOA

### Prep Batch: 39771

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-39771/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Analysis Batch: 39772

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-1 | BG-3, 1' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-2 | BG-3, 3' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-3 | BG-3, 5' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-4 | BG-3, 10' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-5 | BG-4, 1' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-6 | BG-4, 3' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-7 | BG-4, 5' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-8 | BG-4, 10' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-9 | BG-6, 1' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-10 | BG-6, 3' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-11 | BG-6, 5' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-12 | BG-6, 10' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-13 | BG-5, 1' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-14 | BG-5, 3' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-15 | BG-5, 5' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-16 | BG-5, 10' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-17 | BG-9, 1' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-18 | BG-9, 3' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-19 | BG-9, 5' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-20 | BG-9, 10' | Total/NA | Solid | 8021B | 39811 |
| MB 880-39771/5-A | Method Blank | Total/NA | Solid | 8021B | 39771 |
| MB 880-39811/5-A | Method Blank | Total/NA | Solid | 8021B | 39811 |
| LCS 880-39811/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 39811 |
| LCSD 880-39811/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 39811 |
| 880-21718-1 MS | BG-3, 1' | Total/NA | Solid | 8021B | 39811 |
| 880-21718-1 MSD | BG-3, 1' | Total/NA | Solid | 8021B | 39811 |

### Prep Batch: 39780

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-39780/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Analysis Batch: 39786

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-21 | BG-7, 1' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-22 | BG-7, 3' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-23 | BG-7, 5' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-24 | BG-7, 10' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-25 | BG-8, 1' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-26 | BG-8, 3' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-27 | BG-8, 5' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-28 | BG-8, 10' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-29 | BG-10, 1' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-30 | BG-10, 3' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-31 | BG-10, 5' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-32 | BG-10, 10' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-33 | BG-11, 1' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-34 | BG-11, 3' | Total/NA | Solid | 8021B | 39813 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## GC VOA (Continued)

### Analysis Batch: 39786 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-35 | BG-11, 5' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-36 | BG-11, 10' | Total/NA | Solid | 8021B | 39813 |
| MB 880-39780/5-A | Method Blank | Total/NA | Solid | 8021B | 39780 |
| MB 880-39813/5-A | Method Blank | Total/NA | Solid | 8021B | 39813 |
| LCS 880-39813/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 39813 |
| LCSD 880-39813/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 39813 |
| 880-21718-21 MS | BG-7, 1' | Total/NA | Solid | 8021B | 39813 |
| 880-21718-21 MSD | BG-7, 1' | Total/NA | Solid | 8021B | 39813 |

### Prep Batch: 39811

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-1 | BG-3, 1' | Total/NA | Solid | 5035 | |
| 880-21718-2 | BG-3, 3' | Total/NA | Solid | 5035 | |
| 880-21718-3 | BG-3, 5' | Total/NA | Solid | 5035 | |
| 880-21718-4 | BG-3, 10' | Total/NA | Solid | 5035 | |
| 880-21718-5 | BG-4, 1' | Total/NA | Solid | 5035 | |
| 880-21718-6 | BG-4, 3' | Total/NA | Solid | 5035 | |
| 880-21718-7 | BG-4, 5' | Total/NA | Solid | 5035 | |
| 880-21718-8 | BG-4, 10' | Total/NA | Solid | 5035 | |
| 880-21718-9 | BG-6, 1' | Total/NA | Solid | 5035 | |
| 880-21718-10 | BG-6, 3' | Total/NA | Solid | 5035 | |
| 880-21718-11 | BG-6, 5' | Total/NA | Solid | 5035 | |
| 880-21718-12 | BG-6, 10' | Total/NA | Solid | 5035 | |
| 880-21718-13 | BG-5, 1' | Total/NA | Solid | 5035 | |
| 880-21718-14 | BG-5, 3' | Total/NA | Solid | 5035 | |
| 880-21718-15 | BG-5, 5' | Total/NA | Solid | 5035 | |
| 880-21718-16 | BG-5, 10' | Total/NA | Solid | 5035 | |
| 880-21718-17 | BG-9, 1' | Total/NA | Solid | 5035 | |
| 880-21718-18 | BG-9, 3' | Total/NA | Solid | 5035 | |
| 880-21718-19 | BG-9, 5' | Total/NA | Solid | 5035 | |
| 880-21718-20 | BG-9, 10' | Total/NA | Solid | 5035 | |
| MB 880-39811/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-39811/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-39811/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-21718-1 MS | BG-3, 1' | Total/NA | Solid | 5035 | |
| 880-21718-1 MSD | BG-3, 1' | Total/NA | Solid | 5035 | |

### Prep Batch: 39813

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-21 | BG-7, 1' | Total/NA | Solid | 5035 | |
| 880-21718-22 | BG-7, 3' | Total/NA | Solid | 5035 | |
| 880-21718-23 | BG-7, 5' | Total/NA | Solid | 5035 | |
| 880-21718-24 | BG-7, 10' | Total/NA | Solid | 5035 | |
| 880-21718-25 | BG-8, 1' | Total/NA | Solid | 5035 | |
| 880-21718-26 | BG-8, 3' | Total/NA | Solid | 5035 | |
| 880-21718-27 | BG-8, 5' | Total/NA | Solid | 5035 | |
| 880-21718-28 | BG-8, 10' | Total/NA | Solid | 5035 | |
| 880-21718-29 | BG-10, 1' | Total/NA | Solid | 5035 | |
| 880-21718-30 | BG-10, 3' | Total/NA | Solid | 5035 | |
| 880-21718-31 | BG-10, 5' | Total/NA | Solid | 5035 | |
| 880-21718-32 | BG-10, 10' | Total/NA | Solid | 5035 | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## GC VOA (Continued)

### Prep Batch: 39813 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-33 | BG-11, 1' | Total/NA | Solid | 5035 | |
| 880-21718-34 | BG-11, 3' | Total/NA | Solid | 5035 | |
| 880-21718-35 | BG-11, 5' | Total/NA | Solid | 5035 | |
| 880-21718-36 | BG-11, 10' | Total/NA | Solid | 5035 | |
| MB 880-39813/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-39813/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-39813/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-21718-21 MS | BG-7, 1' | Total/NA | Solid | 5035 | |
| 880-21718-21 MSD | BG-7, 1' | Total/NA | Solid | 5035 | |

### Analysis Batch: 39914

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-1 | BG-3, 1' | Total/NA | Solid | Total BTEX | |
| 880-21718-2 | BG-3, 3' | Total/NA | Solid | Total BTEX | |
| 880-21718-3 | BG-3, 5' | Total/NA | Solid | Total BTEX | |
| 880-21718-4 | BG-3, 10' | Total/NA | Solid | Total BTEX | |
| 880-21718-5 | BG-4, 1' | Total/NA | Solid | Total BTEX | |
| 880-21718-6 | BG-4, 3' | Total/NA | Solid | Total BTEX | |
| 880-21718-7 | BG-4, 5' | Total/NA | Solid | Total BTEX | |
| 880-21718-8 | BG-4, 10' | Total/NA | Solid | Total BTEX | |
| 880-21718-9 | BG-6, 1' | Total/NA | Solid | Total BTEX | |
| 880-21718-10 | BG-6, 3' | Total/NA | Solid | Total BTEX | |
| 880-21718-11 | BG-6, 5' | Total/NA | Solid | Total BTEX | |
| 880-21718-12 | BG-6, 10' | Total/NA | Solid | Total BTEX | |
| 880-21718-13 | BG-5, 1' | Total/NA | Solid | Total BTEX | |
| 880-21718-14 | BG-5, 3' | Total/NA | Solid | Total BTEX | |
| 880-21718-15 | BG-5, 5' | Total/NA | Solid | Total BTEX | |
| 880-21718-16 | BG-5, 10' | Total/NA | Solid | Total BTEX | |
| 880-21718-17 | BG-9, 1' | Total/NA | Solid | Total BTEX | |
| 880-21718-18 | BG-9, 3' | Total/NA | Solid | Total BTEX | |
| 880-21718-19 | BG-9, 5' | Total/NA | Solid | Total BTEX | |
| 880-21718-20 | BG-9, 10' | Total/NA | Solid | Total BTEX | |
| 880-21718-21 | BG-7, 1' | Total/NA | Solid | Total BTEX | |
| 880-21718-22 | BG-7, 3' | Total/NA | Solid | Total BTEX | |
| 880-21718-23 | BG-7, 5' | Total/NA | Solid | Total BTEX | |
| 880-21718-24 | BG-7, 10' | Total/NA | Solid | Total BTEX | |
| 880-21718-25 | BG-8, 1' | Total/NA | Solid | Total BTEX | |
| 880-21718-26 | BG-8, 3' | Total/NA | Solid | Total BTEX | |
| 880-21718-27 | BG-8, 5' | Total/NA | Solid | Total BTEX | |
| 880-21718-28 | BG-8, 10' | Total/NA | Solid | Total BTEX | |
| 880-21718-29 | BG-10, 1' | Total/NA | Solid | Total BTEX | |
| 880-21718-30 | BG-10, 3' | Total/NA | Solid | Total BTEX | |
| 880-21718-31 | BG-10, 5' | Total/NA | Solid | Total BTEX | |
| 880-21718-32 | BG-10, 10' | Total/NA | Solid | Total BTEX | |
| 880-21718-33 | BG-11, 1' | Total/NA | Solid | Total BTEX | |
| 880-21718-34 | BG-11, 3' | Total/NA | Solid | Total BTEX | |
| 880-21718-35 | BG-11, 5' | Total/NA | Solid | Total BTEX | |
| 880-21718-36 | BG-11, 10' | Total/NA | Solid | Total BTEX | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## GC Semi VOA

### Analysis Batch: 39764

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-21 | BG-7, 1' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-22 | BG-7, 3' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-23 | BG-7, 5' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-24 | BG-7, 10' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-25 | BG-8, 1' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-26 | BG-8, 3' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-27 | BG-8, 5' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-28 | BG-8, 10' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-29 | BG-10, 1' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-30 | BG-10, 3' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-31 | BG-10, 5' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-32 | BG-10, 10' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-33 | BG-11, 1' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-34 | BG-11, 3' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-35 | BG-11, 5' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-36 | BG-11, 10' | Total/NA | Solid | 8015B NM | 39823 |
| MB 880-39823/1-A | Method Blank | Total/NA | Solid | 8015B NM | 39823 |
| LCS 880-39823/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 39823 |
| LCSD 880-39823/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-21 MS | BG-7, 1' | Total/NA | Solid | 8015B NM | 39823 |
| 880-21718-21 MSD | BG-7, 1' | Total/NA | Solid | 8015B NM | 39823 |

### Prep Batch: 39815

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-1 | BG-3, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-2 | BG-3, 3' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-3 | BG-3, 5' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-4 | BG-3, 10' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-5 | BG-4, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-6 | BG-4, 3' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-7 | BG-4, 5' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-8 | BG-4, 10' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-9 | BG-6, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-10 | BG-6, 3' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-11 | BG-6, 5' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-12 | BG-6, 10' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-13 | BG-5, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-14 | BG-5, 3' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-15 | BG-5, 5' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-16 | BG-5, 10' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-17 | BG-9, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-18 | BG-9, 3' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-19 | BG-9, 5' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-20 | BG-9, 10' | Total/NA | Solid | 8015NM Prep | |
| MB 880-39815/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-39815/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-39815/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-21718-1 MS | BG-3, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-1 MSD | BG-3, 1' | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## GC Semi VOA

### Prep Batch: 39823

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-21 | BG-7, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-22 | BG-7, 3' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-23 | BG-7, 5' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-24 | BG-7, 10' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-25 | BG-8, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-26 | BG-8, 3' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-27 | BG-8, 5' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-28 | BG-8, 10' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-29 | BG-10, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-30 | BG-10, 3' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-31 | BG-10, 5' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-32 | BG-10, 10' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-33 | BG-11, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-34 | BG-11, 3' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-35 | BG-11, 5' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-36 | BG-11, 10' | Total/NA | Solid | 8015NM Prep | |
| MB 880-39823/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-39823/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-39823/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-21718-21 MS | BG-7, 1' | Total/NA | Solid | 8015NM Prep | |
| 880-21718-21 MSD | BG-7, 1' | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 39874

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-1 | BG-3, 1' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-2 | BG-3, 3' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-3 | BG-3, 5' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-4 | BG-3, 10' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-5 | BG-4, 1' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-6 | BG-4, 3' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-7 | BG-4, 5' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-8 | BG-4, 10' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-9 | BG-6, 1' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-10 | BG-6, 3' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-11 | BG-6, 5' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-12 | BG-6, 10' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-13 | BG-5, 1' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-14 | BG-5, 3' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-15 | BG-5, 5' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-16 | BG-5, 10' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-17 | BG-9, 1' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-18 | BG-9, 3' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-19 | BG-9, 5' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-20 | BG-9, 10' | Total/NA | Solid | 8015B NM | 39815 |
| MB 880-39815/1-A | Method Blank | Total/NA | Solid | 8015B NM | 39815 |
| LCS 880-39815/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 39815 |
| LCSD 880-39815/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-1 MS | BG-3, 1' | Total/NA | Solid | 8015B NM | 39815 |
| 880-21718-1 MSD | BG-3, 1' | Total/NA | Solid | 8015B NM | 39815 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## GC Semi VOA

### Analysis Batch: 39909

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-1 | BG-3, 1' | Total/NA | Solid | 8015 NM | |
| 880-21718-2 | BG-3, 3' | Total/NA | Solid | 8015 NM | |
| 880-21718-3 | BG-3, 5' | Total/NA | Solid | 8015 NM | |
| 880-21718-4 | BG-3, 10' | Total/NA | Solid | 8015 NM | |
| 880-21718-5 | BG-4, 1' | Total/NA | Solid | 8015 NM | |
| 880-21718-6 | BG-4, 3' | Total/NA | Solid | 8015 NM | |
| 880-21718-7 | BG-4, 5' | Total/NA | Solid | 8015 NM | |
| 880-21718-8 | BG-4, 10' | Total/NA | Solid | 8015 NM | |
| 880-21718-9 | BG-6, 1' | Total/NA | Solid | 8015 NM | |
| 880-21718-10 | BG-6, 3' | Total/NA | Solid | 8015 NM | |
| 880-21718-11 | BG-6, 5' | Total/NA | Solid | 8015 NM | |
| 880-21718-12 | BG-6, 10' | Total/NA | Solid | 8015 NM | |
| 880-21718-13 | BG-5, 1' | Total/NA | Solid | 8015 NM | |
| 880-21718-14 | BG-5, 3' | Total/NA | Solid | 8015 NM | |
| 880-21718-15 | BG-5, 5' | Total/NA | Solid | 8015 NM | |
| 880-21718-16 | BG-5, 10' | Total/NA | Solid | 8015 NM | |
| 880-21718-17 | BG-9, 1' | Total/NA | Solid | 8015 NM | |
| 880-21718-18 | BG-9, 3' | Total/NA | Solid | 8015 NM | |
| 880-21718-19 | BG-9, 5' | Total/NA | Solid | 8015 NM | |
| 880-21718-20 | BG-9, 10' | Total/NA | Solid | 8015 NM | |
| 880-21718-21 | BG-7, 1' | Total/NA | Solid | 8015 NM | |
| 880-21718-22 | BG-7, 3' | Total/NA | Solid | 8015 NM | |
| 880-21718-23 | BG-7, 5' | Total/NA | Solid | 8015 NM | |
| 880-21718-24 | BG-7, 10' | Total/NA | Solid | 8015 NM | |
| 880-21718-25 | BG-8, 1' | Total/NA | Solid | 8015 NM | |
| 880-21718-26 | BG-8, 3' | Total/NA | Solid | 8015 NM | |
| 880-21718-27 | BG-8, 5' | Total/NA | Solid | 8015 NM | |
| 880-21718-28 | BG-8, 10' | Total/NA | Solid | 8015 NM | |
| 880-21718-29 | BG-10, 1' | Total/NA | Solid | 8015 NM | |
| 880-21718-30 | BG-10, 3' | Total/NA | Solid | 8015 NM | |
| 880-21718-31 | BG-10, 5' | Total/NA | Solid | 8015 NM | |
| 880-21718-32 | BG-10, 10' | Total/NA | Solid | 8015 NM | |
| 880-21718-33 | BG-11, 1' | Total/NA | Solid | 8015 NM | |
| 880-21718-34 | BG-11, 3' | Total/NA | Solid | 8015 NM | |
| 880-21718-35 | BG-11, 5' | Total/NA | Solid | 8015 NM | |
| 880-21718-36 | BG-11, 10' | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 39796

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-21 | BG-7, 1' | Soluble | Solid | DI Leach | |
| 880-21718-22 | BG-7, 3' | Soluble | Solid | DI Leach | |
| 880-21718-23 | BG-7, 5' | Soluble | Solid | DI Leach | |
| 880-21718-24 | BG-7, 10' | Soluble | Solid | DI Leach | |
| 880-21718-25 | BG-8, 1' | Soluble | Solid | DI Leach | |
| 880-21718-26 | BG-8, 3' | Soluble | Solid | DI Leach | |
| 880-21718-27 | BG-8, 5' | Soluble | Solid | DI Leach | |
| 880-21718-28 | BG-8, 10' | Soluble | Solid | DI Leach | |
| 880-21718-29 | BG-10, 1' | Soluble | Solid | DI Leach | |
| 880-21718-30 | BG-10, 3' | Soluble | Solid | DI Leach | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## HPLC/IC (Continued)

### Leach Batch: 39796 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-31 | BG-10, 5' | Soluble | Solid | DI Leach | |
| 880-21718-32 | BG-10, 10' | Soluble | Solid | DI Leach | |
| 880-21718-33 | BG-11, 1' | Soluble | Solid | DI Leach | |
| 880-21718-34 | BG-11, 3' | Soluble | Solid | DI Leach | |
| 880-21718-35 | BG-11, 5' | Soluble | Solid | DI Leach | |
| 880-21718-36 | BG-11, 10' | Soluble | Solid | DI Leach | |
| MB 880-39796/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-39796/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-39796/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-21718-28 MS | BG-8, 10' | Soluble | Solid | DI Leach | |
| 880-21718-28 MSD | BG-8, 10' | Soluble | Solid | DI Leach | |

### Leach Batch: 39797

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-1 | BG-3, 1' | Soluble | Solid | DI Leach | |
| 880-21718-2 | BG-3, 3' | Soluble | Solid | DI Leach | |
| 880-21718-3 | BG-3, 5' | Soluble | Solid | DI Leach | |
| 880-21718-4 | BG-3, 10' | Soluble | Solid | DI Leach | |
| 880-21718-5 | BG-4, 1' | Soluble | Solid | DI Leach | |
| 880-21718-6 | BG-4, 3' | Soluble | Solid | DI Leach | |
| 880-21718-7 | BG-4, 5' | Soluble | Solid | DI Leach | |
| 880-21718-8 | BG-4, 10' | Soluble | Solid | DI Leach | |
| 880-21718-9 | BG-6, 1' | Soluble | Solid | DI Leach | |
| 880-21718-10 | BG-6, 3' | Soluble | Solid | DI Leach | |
| 880-21718-11 | BG-6, 5' | Soluble | Solid | DI Leach | |
| 880-21718-12 | BG-6, 10' | Soluble | Solid | DI Leach | |
| 880-21718-13 | BG-5, 1' | Soluble | Solid | DI Leach | |
| 880-21718-14 | BG-5, 3' | Soluble | Solid | DI Leach | |
| 880-21718-15 | BG-5, 5' | Soluble | Solid | DI Leach | |
| 880-21718-16 | BG-5, 10' | Soluble | Solid | DI Leach | |
| 880-21718-17 | BG-9, 1' | Soluble | Solid | DI Leach | |
| 880-21718-18 | BG-9, 3' | Soluble | Solid | DI Leach | |
| 880-21718-19 | BG-9, 5' | Soluble | Solid | DI Leach | |
| 880-21718-20 | BG-9, 10' | Soluble | Solid | DI Leach | |
| MB 880-39797/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-39797/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-39797/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-21718-1 MS | BG-3, 1' | Soluble | Solid | DI Leach | |
| 880-21718-1 MSD | BG-3, 1' | Soluble | Solid | DI Leach | |
| 880-21718-11 MS | BG-6, 5' | Soluble | Solid | DI Leach | |
| 880-21718-11 MSD | BG-6, 5' | Soluble | Solid | DI Leach | |

### Analysis Batch: 39854

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-21 | BG-7, 1' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-22 | BG-7, 3' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-23 | BG-7, 5' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-24 | BG-7, 10' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-25 | BG-8, 1' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-26 | BG-8, 3' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-27 | BG-8, 5' | Soluble | Solid | 300.0 | 39796 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## HPLC/IC (Continued)

### Analysis Batch: 39854 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-28 | BG-8, 10' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-29 | BG-10, 1' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-30 | BG-10, 3' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-31 | BG-10, 5' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-32 | BG-10, 10' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-33 | BG-11, 1' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-34 | BG-11, 3' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-35 | BG-11, 5' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-36 | BG-11, 10' | Soluble | Solid | 300.0 | 39796 |
| MB 880-39796/1-A | Method Blank | Soluble | Solid | 300.0 | 39796 |
| LCS 880-39796/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 39796 |
| LCSD 880-39796/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 39796 |
| 880-21718-28 MS | BG-8, 10' | Soluble | Solid | 300.0 | 39796 |
| 880-21718-28 MSD | BG-8, 10' | Soluble | Solid | 300.0 | 39796 |

### Analysis Batch: 39858

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21718-1 | BG-3, 1' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-2 | BG-3, 3' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-3 | BG-3, 5' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-4 | BG-3, 10' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-5 | BG-4, 1' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-6 | BG-4, 3' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-7 | BG-4, 5' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-8 | BG-4, 10' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-9 | BG-6, 1' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-10 | BG-6, 3' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-11 | BG-6, 5' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-12 | BG-6, 10' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-13 | BG-5, 1' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-14 | BG-5, 3' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-15 | BG-5, 5' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-16 | BG-5, 10' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-17 | BG-9, 1' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-18 | BG-9, 3' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-19 | BG-9, 5' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-20 | BG-9, 10' | Soluble | Solid | 300.0 | 39797 |
| MB 880-39797/1-A | Method Blank | Soluble | Solid | 300.0 | 39797 |
| LCS 880-39797/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 39797 |
| LCSD 880-39797/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 39797 |
| 880-21718-1 MS | BG-3, 1' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-1 MSD | BG-3, 1' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-11 MS | BG-6, 5' | Soluble | Solid | 300.0 | 39797 |
| 880-21718-11 MSD | BG-6, 5' | Soluble | Solid | 300.0 | 39797 |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-3, 1'
**Date Collected: 11/14/22 12:00**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-1
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.97 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/17/22 21:44 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 11:07 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39858 | 11/18/22 00:47 | SMC | EET MID |

## Client Sample ID: BG-3, 3'
**Date Collected: 11/14/22 12:15**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-2
**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 | | | 5.02 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/17/22 22:05 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 12:12 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 01:04 | SMC | EET MID |

## Client Sample ID: BG-3, 5'
**Date Collected: 11/14/22 12:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-3
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.03 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/17/22 22:25 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 12:35 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 01:10 | SMC | EET MID |

## Client Sample ID: BG-3, 10'
**Date Collected: 11/14/22 12:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-4
**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 | | | 5.01 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/17/22 22:46 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-3, 10'
**Date Collected: 11/14/22 12:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-4**
**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 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 12:56 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39858 | 11/18/22 01:16 | SMC | EET MID |

## Client Sample ID: BG-4, 1'
**Date Collected: 11/14/22 13:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-5**
**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 | | | 4.97 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/17/22 23:06 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 13:18 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39858 | 11/18/22 01:21 | SMC | EET MID |

## Client Sample ID: BG-4, 3'
**Date Collected: 11/14/22 13:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-6**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.95 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/17/22 23:27 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 13:39 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 01:38 | SMC | EET MID |

## Client Sample ID: BG-4, 5'
**Date Collected: 11/14/22 13:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-7**
**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 | | | 5.03 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/17/22 23:47 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 14:02 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-4, 5'
**Date Collected: 11/14/22 13:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-7**
**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 | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 01:44 | SMC | EET MID |

## Client Sample ID: BG-4, 10'
**Date Collected: 11/14/22 13:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-8**
**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 | | | 5.01 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 00:07 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 14:24 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 01:50 | SMC | EET MID |

## Client Sample ID: BG-6, 1'
**Date Collected: 11/14/22 14:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-9**
**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 | | | 4.99 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 00:28 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 14:46 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 01:55 | SMC | EET MID |

## Client Sample ID: BG-6, 3'
**Date Collected: 11/14/22 14:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-10**
**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 | | | 4.97 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 00:48 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 15:07 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 02:01 | SMC | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-6, 5'
**Date Collected: 11/14/22 14:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-11**
**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 | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 02:10 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 15:51 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 02:07 | SMC | EET MID |

## Client Sample ID: BG-6, 10'
**Date Collected: 11/14/22 14:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-12**
**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 | | | 5.03 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 02:31 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 16:13 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 02:24 | SMC | EET MID |

## Client Sample ID: BG-5, 1'
**Date Collected: 11/15/22 09:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-13**
**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 | | | 5.01 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 02:51 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 16:35 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 02:29 | SMC | EET MID |

## Client Sample ID: BG-5, 3'
**Date Collected: 11/15/22 09:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-14**
**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 | | | 5.02 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 03:12 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-5, 3'
**Date Collected: 11/15/22 09:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-14**
**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 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 16:57 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 02:46 | SMC | EET MID |

## Client Sample ID: BG-5, 5'
**Date Collected: 11/15/22 10:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-15**
**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 | | | 5.02 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 03:32 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 17:18 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 02:52 | SMC | EET MID |

## Client Sample ID: BG-5, 10'
**Date Collected: 11/15/22 10:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-16**
**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 | | | 5.03 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 03:53 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 17:41 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 02:58 | SMC | EET MID |

## Client Sample ID: BG-9, 1'
**Date Collected: 11/15/22 10:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-17**
**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 | | | 5.01 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 04:13 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 18:02 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-9, 1'
**Date Collected: 11/15/22 10:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-17**
**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 | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 03:03 | SMC | EET MID |

## Client Sample ID: BG-9, 3'
**Date Collected: 11/15/22 10:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-18**
**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 | | | 4.97 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 04:33 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 18:23 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 03:09 | SMC | EET MID |

## Client Sample ID: BG-9, 5'
**Date Collected: 11/15/22 11:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-19**
**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 | | | 4.95 g | 5 mL | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 04:54 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 18:45 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 03:14 | SMC | EET MID |

## Client Sample ID: BG-9, 10'
**Date Collected: 11/15/22 11:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-20**
**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 | 39811 | 11/17/22 12:37 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39772 | 11/18/22 05:14 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/21/22 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39815 | 11/17/22 12:54 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39874 | 11/18/22 19:07 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 39797 | 11/17/22 12:01 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39858 | 11/18/22 03:20 | SMC | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-7, 1'
**Date Collected: 11/15/22 11:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-21**
**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 | | | 4.98 g | 5 mL | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 02:51 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/17/22 21:13 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 08:50 | CH | EET MID |

## Client Sample ID: BG-7, 3'
**Date Collected: 11/15/22 11:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-22**
**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 | | | 5.01 g | 5 mL | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 03:11 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/17/22 22:18 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 08:57 | CH | EET MID |

## Client Sample ID: BG-7, 5'
**Date Collected: 11/15/22 12:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-23**
**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 | | | 5.03 g | 5 mL | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 03:31 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/17/22 22:40 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39854 | 11/18/22 09:18 | CH | EET MID |

## Client Sample ID: BG-7, 10'
**Date Collected: 11/15/22 12:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-24**
**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 | | | 4.99 g | 5 mL | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 03:52 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-7, 10'
**Date Collected: 11/15/22 12:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-24**
**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 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/17/22 23:02 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 09:26 | CH | EET MID |

## Client Sample ID: BG-8, 1'
**Date Collected: 11/15/22 12:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-25**
**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 | | | 4.98 g | 5 mL | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 04:12 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/17/22 23:24 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 09:33 | CH | EET MID |

## Client Sample ID: BG-8, 3'
**Date Collected: 11/15/22 12:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-26**
**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 | | | 5.02 g | 5 mL | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 04:33 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/17/22 23:45 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 09:40 | CH | EET MID |

## Client Sample ID: BG-8, 5'
**Date Collected: 11/15/22 13:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-27**
**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 | | | 5.03 g | 5 mL | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 04:53 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/18/22 00:07 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-8, 5'
**Date Collected: 11/15/22 13:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-27**
**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 | | | 5.05 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 09:47 | CH | EET MID |

## Client Sample ID: BG-8, 10'
**Date Collected: 11/15/22 13:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-28**
**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 | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 05:13 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/18/22 00:29 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 09:54 | CH | EET MID |

## Client Sample ID: BG-10, 1'
**Date Collected: 11/15/22 13:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-29**
**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 | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 05:34 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/18/22 00:51 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 10:15 | CH | EET MID |

## Client Sample ID: BG-10, 3'
**Date Collected: 11/15/22 13:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21718-30**
**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 | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 05:54 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/18/22 01:13 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 10:23 | CH | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-10, 5'
**Date Collected: 11/15/22 14:00**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-31
**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 | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 07:44 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/18/22 01:57 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 10:44 | CH | EET MID |

## Client Sample ID: BG-10, 10'
**Date Collected: 11/15/22 14:15**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-32
**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 | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 08:05 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/18/22 02:19 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 10:51 | CH | EET MID |

## Client Sample ID: BG-11, 1'
**Date Collected: 11/15/22 14:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-33
**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 | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 08:54 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/18/22 02:40 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 10:58 | CH | EET MID |

## Client Sample ID: BG-11, 3'
**Date Collected: 11/15/22 14:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21718-34
**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 | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 09:15 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## Client Sample ID: BG-11, 3'

**Lab Sample ID: 880-21718-34**
**Matrix: Solid**
**Date Collected: 11/15/22 14:45**
**Date Received: 11/17/22 10:33**

| 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 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/18/22 03:03 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 11:05 | CH | EET MID |

## Client Sample ID: BG-11, 5'

**Lab Sample ID: 880-21718-35**
**Matrix: Solid**
**Date Collected: 11/15/22 15:00**
**Date Received: 11/17/22 10:33**

| 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 | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 09:35 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/18/22 03:25 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 11:12 | CH | EET MID |

## Client Sample ID: BG-11, 10'

**Lab Sample ID: 880-21718-36**
**Matrix: Solid**
**Date Collected: 11/15/22 15:15**
**Date Received: 11/17/22 10:33**

| 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 | 39813 | 11/17/22 12:44 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39786 | 11/18/22 09:56 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39914 | 11/18/22 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 39909 | 11/18/22 10:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 39823 | 11/17/22 13:58 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39764 | 11/18/22 03:46 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39854 | 11/18/22 11:19 | 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: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

## 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: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

| 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: Culebra Bluff SE 5 32

Job ID: 880-21718-1
SDG: 19-0180-07

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 880-21718-1 | BG-3, 1' | Solid | 11/14/22 12:00 | 11/17/22 10:33 |
| 880-21718-2 | BG-3, 3' | Solid | 11/14/22 12:15 | 11/17/22 10:33 |
| 880-21718-3 | BG-3, 5' | Solid | 11/14/22 12:30 | 11/17/22 10:33 |
| 880-21718-4 | BG-3, 10' | Solid | 11/14/22 12:45 | 11/17/22 10:33 |
| 880-21718-5 | BG-4, 1' | Solid | 11/14/22 13:00 | 11/17/22 10:33 |
| 880-21718-6 | BG-4, 3' | Solid | 11/14/22 13:15 | 11/17/22 10:33 |
| 880-21718-7 | BG-4, 5' | Solid | 11/14/22 13:30 | 11/17/22 10:33 |
| 880-21718-8 | BG-4, 10' | Solid | 11/14/22 13:45 | 11/17/22 10:33 |
| 880-21718-9 | BG-6, 1' | Solid | 11/14/22 14:00 | 11/17/22 10:33 |
| 880-21718-10 | BG-6, 3' | Solid | 11/14/22 14:15 | 11/17/22 10:33 |
| 880-21718-11 | BG-6, 5' | Solid | 11/14/22 14:30 | 11/17/22 10:33 |
| 880-21718-12 | BG-6, 10' | Solid | 11/14/22 14:45 | 11/17/22 10:33 |
| 880-21718-13 | BG-5, 1' | Solid | 11/15/22 09:30 | 11/17/22 10:33 |
| 880-21718-14 | BG-5, 3' | Solid | 11/15/22 09:45 | 11/17/22 10:33 |
| 880-21718-15 | BG-5, 5' | Solid | 11/15/22 10:00 | 11/17/22 10:33 |
| 880-21718-16 | BG-5, 10' | Solid | 11/15/22 10:15 | 11/17/22 10:33 |
| 880-21718-17 | BG-9, 1' | Solid | 11/15/22 10:30 | 11/17/22 10:33 |
| 880-21718-18 | BG-9, 3' | Solid | 11/15/22 10:45 | 11/17/22 10:33 |
| 880-21718-19 | BG-9, 5' | Solid | 11/15/22 11:00 | 11/17/22 10:33 |
| 880-21718-20 | BG-9, 10' | Solid | 11/15/22 11:15 | 11/17/22 10:33 |
| 880-21718-21 | BG-7, 1' | Solid | 11/15/22 11:30 | 11/17/22 10:33 |
| 880-21718-22 | BG-7, 3' | Solid | 11/15/22 11:45 | 11/17/22 10:33 |
| 880-21718-23 | BG-7, 5' | Solid | 11/15/22 12:00 | 11/17/22 10:33 |
| 880-21718-24 | BG-7, 10' | Solid | 11/15/22 12:15 | 11/17/22 10:33 |
| 880-21718-25 | BG-8, 1' | Solid | 11/15/22 12:30 | 11/17/22 10:33 |
| 880-21718-26 | BG-8, 3' | Solid | 11/15/22 12:45 | 11/17/22 10:33 |
| 880-21718-27 | BG-8, 5' | Solid | 11/15/22 13:00 | 11/17/22 10:33 |
| 880-21718-28 | BG-8, 10' | Solid | 11/15/22 13:15 | 11/17/22 10:33 |
| 880-21718-29 | BG-10, 1' | Solid | 11/15/22 13:30 | 11/17/22 10:33 |
| 880-21718-30 | BG-10, 3' | Solid | 11/15/22 13:45 | 11/17/22 10:33 |
| 880-21718-31 | BG-10, 5' | Solid | 11/15/22 14:00 | 11/17/22 10:33 |
| 880-21718-32 | BG-10, 10' | Solid | 11/15/22 14:15 | 11/17/22 10:33 |
| 880-21718-33 | BG-11, 1' | Solid | 11/15/22 14:30 | 11/17/22 10:33 |
| 880-21718-34 | BG-11, 3' | Solid | 11/15/22 14:45 | 11/17/22 10:33 |
| 880-21718-35 | BG-11, 5' | Solid | 11/15/22 15:00 | 11/17/22 10:33 |
| 880-21718-36 | BG-11, 10' | Solid | 11/15/22 15:15 | 11/17/22 10:33 |

Released to Imaging: 6/25/2024 3:21:21 PM
Received by OCD: 5/8/2024 11:20:33 AM

21718 No. 2866

# CHAIN-OF-CUSTODY

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

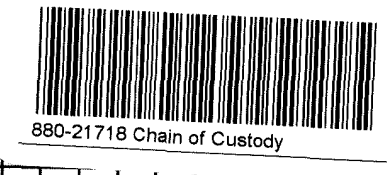
Data Reported to

DATE 11/17/2022 PAGE 1 OF 3
PO# LAB WORK ORDER#
PROJECT LOCATION OR NAME Culebra Bluff SE S 32
LAI PROJECT #. 19-0180-07 COLLECTOR JH

TRRP report? ☐ Yes ☑ No
TIME ZONE Time zone/State: MST/NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR 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 ☐ | CHLORIDE ☑ ANIONS ☐ ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6-3, 1' | | 11/14/22 | 1200 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | X | | 202 |
| B6-3, 3' | | | 1215 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-3, 5' | | | 1230 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-3, 10' | | | 1245 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-4, 1' | | | 1300 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-4, 3' | | | 1315 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-4, 5' | | | 1330 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-4, 10' | | | 1345 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-6, 1' | | | 1400 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-6, 3' | | | 1415 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-6, 5' | | | 1430 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-6, 10' | | | 1445 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-5, 1' | | 11/15/22 | 0930 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-5, 3' | | | 0945 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-5, 5' | | | 1000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |




| | | |
|---|---|---|
| RELINQUISHED BY (Signature) | DATE/TIME 11/17/22 1033 | 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 4.4/-4.1 THERM# IR8-36
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

Released to Imaging: 6/25/2024 3:21:21 PM
Received by OCD: 5/8/2024 11:20:33 AM

21718 No. 2867

# CHAIN-OF-CUSTODY

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

DATE 11/17/2022 PAGE 2 OF 3
PO# _____ LAB WORK ORDER# _____
PROJECT LOCATION OR NAME Culebra Bluff SE 5 32
LAI PROJECT # 19-0180-07 COLLECTOR JH

Data Reported to

TRRP report? ☐ Yes ☑ No

TIME ZONE: Time zone/State MST/NM

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

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

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☒ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6-5, 10' | | 11/15/22 | 1015 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | | |
| B6-9, 1' | | | 1030 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-9, 3' | | | 1045 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-9, 5' | | | 1100 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-9, 10' | | | 1115 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-7, 1' | | | 1130 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-7, 3' | | | 1145 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-7, 5' | | | 1200 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-7, 10' | | | 1215 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-8, 1' | | | 1230 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-8, 3' | | | 1245 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-8, 5' | | | 1300 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-8, 10' | | | 1315 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-10, 1' | | | 1330 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B6-10, 3' | | | 1345 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY (Signature) DATE/TIME 11/17/22 1033 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 _____ THERM# _____
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Released to Imaging: 6/25/2024 3:21:21 PM
Received by OCD: 5/8/2024 11:20:33 AM

21718 No. 2868

# CHAIN-OF-CUSTODY

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

Data Reported to

DATE. 11/17/2022 PAGE 3 OF 3

PO# _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME Culebra Bluff SE S 32

LAI PROJECT #: 19-0180-07 COLLECTOR JH

TRRP report? ☐ Yes ☑ No

TIME ZONE
Time zone/State: MST/NM

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

| Field Sample I D | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES: BTEX + MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ | TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ | PAH 8270 ☐ | HOLDPAH ☐ | 8081 PESTICIDES ☐ | 8082 PCBS ☐ | 8151 HERBICIDES ☐ | TCLP - METALS (RCRA) ☐ | TCLP VOC ☐ | TCLP - PEST ☐ | HERB ☐ | Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ | OTHER LIST ☐ | LEAD - TOTAL ☐ | D W 200.8 ☐ | TCLP ☐ | RCI ☐ | TOX ☐ | FLASHPOINT ☐ | TDS ☐ | TSS ☐ | % MOISTURE ☐ | pH ☐ | CYANIDE ☐ | HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ | PECHLORATE ☐ | CHLORIDES ☐ | ANIONS ☐ | ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6-10, 5' | | 11/15/22 | 1400 | S | 1 | | | | X | | X | | | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| B6-10, 10' | | " | 1415 | " | " | | | | " | | " | | | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | | " | | | |
| B6-11, 1' | | " | 1430 | " | " | | | | " | | " | | | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | | " | | | |
| B6-11, 3' | | " | 1445 | " | " | | | | " | | " | | | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | | " | | | |
| B6-11, 5' | | " | 1500 | " | " | | | | " | | " | | | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | | " | | | |
| B6-11, 10' | | " | 1515 | " | " | | | | " | | " | | | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | | " | | | |

Loc: 880
21718

TOTAL

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) |
|---|---|---|
| | 11/17/22 1033 | |
| 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 _____ THERM# _____
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

# Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-21718-1
SDG Number: 19-0180-07

**Login Number: 21718**
**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 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

Generated
11/21/2022 11:53:03 AM

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

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

PBELAB

# Analytical Report

**Prepared for:**

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Culebre Bluff Fed Com 3

Project Number: 19-0180-07

Location: New Mexico

Lab Order Number: 2D04008

NELAP ACCREDITED TNI LABORATORY

**Current Certification**

Report Date: 04/11/22

| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

**ANALYTICAL REPORT FOR SAMPLES**

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| C-56 | 2D04008-01 | Soil | 03/28/22 13:04 | 04-04-2022 09:58 |
| C-57 | 2D04008-02 | Soil | 03/28/22 13:06 | 04-04-2022 09:58 |
| C-63 | 2D04008-03 | Soil | 03/28/22 13:30 | 04-04-2022 09:58 |
| C-65 | 2D04008-04 | Soil | 03/28/22 13:02 | 04-04-2022 09:58 |
| C-89 | 2D04008-05 | Soil | 03/29/22 09:00 | 04-04-2022 09:58 |
| C-90 | 2D04008-06 | Soil | 03/29/22 09:02 | 04-04-2022 09:58 |
| C-91 | 2D04008-07 | Soil | 03/29/22 09:04 | 04-04-2022 09:58 |
| C-92 | 2D04008-08 | Soil | 03/29/22 09:06 | 04-04-2022 09:58 |
| C-2 | 2D04008-09 | Soil | 03/28/22 15:30 | 04-04-2022 09:58 |
| C-10 | 2D04008-10 | Soil | 03/30/22 17:00 | 04-04-2022 09:58 |
| C-11 | 2D04008-11 | Soil | 03/30/22 17:02 | 04-04-2022 09:58 |

| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-56

### 2D04008-01 (Soil)

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Permian Basin Environmental Lab, L.P.** | | | | | | | | | |
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00104 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 18:23 | EPA 8021B | |
| Toluene | ND | 0.00104 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 18:23 | EPA 8021B | |
| Ethylbenzene | ND | 0.00104 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 18:23 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00208 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 18:23 | EPA 8021B | |
| Xylene (o) | ND | 0.00104 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 18:23 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *102 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 18:23* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *107 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 18:23* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **321** | 1.04 | mg/kg dry | 1 | P2D0510 | 04/05/22 16:32 | 04/05/22 23:18 | EPA 300.0 | |
| **% Moisture** | **4.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.0 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 13:30 | TPH 8015M | |
| >C12-C28 | ND | 26.0 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 13:30 | TPH 8015M | |
| >C28-C35 | ND | 26.0 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 13:30 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *89.5 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 13:30* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *93.8 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 13:30* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 26.0 | mg/kg dry | 1 | [CALC] | 04/05/22 13:20 | 04/09/22 13:30 | calc | |



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

| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-57

### 2D04008-02 (Soil)

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00103 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 18:45 | EPA 8021B | |
| Toluene | ND | 0.00103 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 18:45 | EPA 8021B | |
| Ethylbenzene | ND | 0.00103 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 18:45 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00206 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 18:45 | EPA 8021B | |
| Xylene (o) | ND | 0.00103 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 18:45 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *101 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 18:45* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *106 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 18:45* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **375** | 1.03 | mg/kg dry | 1 | P2D0510 | 04/05/22 16:32 | 04/05/22 23:33 | EPA 300.0 | |
| **% Moisture** | **3.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 25.8 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 13:52 | TPH 8015M | |
| >C12-C28 | ND | 25.8 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 13:52 | TPH 8015M | |
| >C28-C35 | ND | 25.8 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 13:52 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *88.7 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 13:52* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *93.1 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 13:52* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 25.8 | mg/kg dry | 1 | [CALC] | 04/05/22 13:20 | 04/09/22 13:52 | calc | |



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

| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-63

**2D04008-03 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00110 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:07 | EPA 8021B | |
| Toluene | ND | 0.00110 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:07 | EPA 8021B | |
| Ethylbenzene | ND | 0.00110 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:07 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00220 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:07 | EPA 8021B | |
| Xylene (o) | ND | 0.00110 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:07 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *103 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 19:07* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *106 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 19:07* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1230** | 5.49 | mg/kg dry | 5 | P2D0510 | 04/05/22 16:32 | 04/06/22 13:22 | EPA 300.0 | |
| **% Moisture** | **9.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 27.5 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 14:14 | TPH 8015M | |
| >C12-C28 | ND | 27.5 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 14:14 | TPH 8015M | |
| >C28-C35 | ND | 27.5 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 14:14 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *88.9 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 14:14* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *93.9 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 14:14* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 27.5 | mg/kg dry | 1 | [CALC] | 04/05/22 13:20 | 04/09/22 14:14 | calc | |



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

| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-65

**2D04008-04 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00104 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:28 | EPA 8021B | |
| Toluene | ND | 0.00104 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:28 | EPA 8021B | |
| Ethylbenzene | ND | 0.00104 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:28 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00208 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:28 | EPA 8021B | |
| Xylene (o) | ND | 0.00104 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:28 | EPA 8021B | |
| *Surrogate: 1,4-Difluorobenzene* | | *105 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 19:28* | *EPA 8021B* | |
| *Surrogate: 4-Bromofluorobenzene* | | *101 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 19:28* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **464** | 1.04 | mg/kg dry | 1 | P2D0510 | 04/05/22 16:32 | 04/06/22 00:04 | EPA 300.0 | |
| **% Moisture** | **4.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.0 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 14:35 | TPH 8015M | |
| >C12-C28 | ND | 26.0 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 14:35 | TPH 8015M | |
| >C28-C35 | ND | 26.0 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 14:35 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *92.9 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 14:35* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *99.1 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 14:35* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 26.0 | mg/kg dry | 1 | [CALC] | 04/05/22 13:20 | 04/09/22 14:35 | calc | |



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

| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-89

**2D04008-05 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00103 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:50 | EPA 8021B | |
| Toluene | ND | 0.00103 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:50 | EPA 8021B | |
| Ethylbenzene | ND | 0.00103 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:50 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00206 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:50 | EPA 8021B | |
| Xylene (o) | ND | 0.00103 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 19:50 | EPA 8021B | |
| *Surrogate: 1,4-Difluorobenzene* | | *105 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 19:50* | *EPA 8021B* | |
| *Surrogate: 4-Bromofluorobenzene* | | *99.8 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 19:50* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1130** | 5.15 | mg/kg dry | 5 | P2D0510 | 04/05/22 16:32 | 04/06/22 13:38 | EPA 300.0 | |
| **% Moisture** | **3.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 25.8 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 14:57 | TPH 8015M | |
| >C12-C28 | ND | 25.8 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 14:57 | TPH 8015M | |
| >C28-C35 | ND | 25.8 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 14:57 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *89.4 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 14:57* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *92.9 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 14:57* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 25.8 | mg/kg dry | 1 | [CALC] | 04/05/22 13:20 | 04/09/22 14:57 | calc | |



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

| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-90

**2D04008-06 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00106 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 20:54 | EPA 8021B | |
| Toluene | ND | 0.00106 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 20:54 | EPA 8021B | |
| Ethylbenzene | ND | 0.00106 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 20:54 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00213 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 20:54 | EPA 8021B | |
| Xylene (o) | ND | 0.00106 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 20:54 | EPA 8021B | |
| *Surrogate: 1,4-Difluorobenzene* | | *105 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 20:54* | *EPA 8021B* | |
| *Surrogate: 4-Bromofluorobenzene* | | *99.8 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 20:54* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1280** | 5.32 | mg/kg dry | 5 | P2D0510 | 04/05/22 16:32 | 04/06/22 13:53 | EPA 300.0 | |
| **% Moisture** | **6.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.6 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 15:19 | TPH 8015M | |
| >C12-C28 | ND | 26.6 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 15:19 | TPH 8015M | |
| >C28-C35 | ND | 26.6 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 15:19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *95.7 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 15:19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *99.0 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 15:19* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 26.6 | mg/kg dry | 1 | [CALC] | 04/05/22 13:20 | 04/09/22 15:19 | calc | |



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

| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-91

### 2D04008-07 (Soil)

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00108 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:15 | EPA 8021B | |
| Toluene | ND | 0.00108 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:15 | EPA 8021B | |
| Ethylbenzene | ND | 0.00108 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:15 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00215 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:15 | EPA 8021B | |
| Xylene (o) | ND | 0.00108 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:15 | EPA 8021B | |
| *Surrogate: 1,4-Difluorobenzene* | | *106 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 21:15* | *EPA 8021B* | |
| *Surrogate: 4-Bromofluorobenzene* | | *101 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 21:15* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1520** | 5.38 | mg/kg dry | 5 | P2D0607 | 04/06/22 13:57 | 04/06/22 17:51 | EPA 300.0 | |
| **% Moisture** | **7.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.9 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 15:41 | TPH 8015M | |
| >C12-C28 | ND | 26.9 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 15:41 | TPH 8015M | |
| >C28-C35 | ND | 26.9 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 15:41 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *102 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 15:41* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *107 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 15:41* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 26.9 | mg/kg dry | 1 | [CALC] | 04/05/22 13:20 | 04/09/22 15:41 | calc | |



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

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|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-92

**2D04008-08 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00109 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:37 | EPA 8021B | |
| Toluene | ND | 0.00109 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:37 | EPA 8021B | |
| Ethylbenzene | ND | 0.00109 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:37 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00217 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:37 | EPA 8021B | |
| Xylene (o) | ND | 0.00109 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:37 | EPA 8021B | |
| *Surrogate: 1,4-Difluorobenzene* | | *104 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 21:37* | *EPA 8021B* | |
| *Surrogate: 4-Bromofluorobenzene* | | *98.4 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 21:37* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1490** | 5.43 | mg/kg dry | 5 | P2D0607 | 04/06/22 13:57 | 04/06/22 18:07 | EPA 300.0 | |
| **% Moisture** | **8.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 27.2 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 16:03 | TPH 8015M | |
| >C12-C28 | ND | 27.2 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 16:03 | TPH 8015M | |
| >C28-C35 | ND | 27.2 | mg/kg dry | 1 | P2D0506 | 04/05/22 13:20 | 04/09/22 16:03 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *84.1 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 16:03* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *87.7 %* | *70-130* | | *P2D0506* | *04/05/22 13:20* | *04/09/22 16:03* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 27.2 | mg/kg dry | 1 | [CALC] | 04/05/22 13:20 | 04/09/22 16:03 | calc | |



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

| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-2

**2D04008-09 (Soil)**

**Permian Basin Environmental Lab, L.P.**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00105 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:58 | EPA 8021B | |
| Toluene | ND | 0.00105 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:58 | EPA 8021B | |
| Ethylbenzene | ND | 0.00105 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:58 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00211 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:58 | EPA 8021B | |
| Xylene (o) | ND | 0.00105 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 21:58 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *100 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 21:58* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *106 %* | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 21:58* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **1160** | 1.05 | mg/kg dry | 1 | P2D0607 | 04/06/22 13:57 | 04/06/22 18:22 | EPA 300.0 | |
| **% Moisture** | **5.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 26.3 | mg/kg dry | 1 | P2D0509 | 04/05/22 15:45 | 04/09/22 19:19 | TPH 8015M | |
| >C12-C28 | ND | 26.3 | mg/kg dry | 1 | P2D0509 | 04/05/22 15:45 | 04/09/22 19:19 | TPH 8015M | |
| >C28-C35 | ND | 26.3 | mg/kg dry | 1 | P2D0509 | 04/05/22 15:45 | 04/09/22 19:19 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *88.8 %* | *70-130* | | *P2D0509* | *04/05/22 15:45* | *04/09/22 19:19* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *93.1 %* | *70-130* | | *P2D0509* | *04/05/22 15:45* | *04/09/22 19:19* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 26.3 | mg/kg dry | 1 | [CALC] | 04/05/22 15:45 | 04/09/22 19:19 | calc | |



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| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-10

**2D04008-10 (Soil)**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Permian Basin Environmental Lab, L.P.** | | | | | | | | | |
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00114 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 22:19 | EPA 8021B | |
| Toluene | ND | 0.00114 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 22:19 | EPA 8021B | |
| Ethylbenzene | ND | 0.00114 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 22:19 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00227 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 22:19 | EPA 8021B | |
| Xylene (o) | ND | 0.00114 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 22:19 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *97.5 %* | | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 22:19* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *104 %* | | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 22:19* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **204** | 1.14 | mg/kg dry | 1 | P2D0607 | 04/06/22 13:57 | 04/06/22 18:37 | EPA 300.0 | |
| **% Moisture** | **12.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 28.4 | mg/kg dry | 1 | P2D0509 | 04/05/22 15:45 | 04/09/22 19:41 | TPH 8015M | |
| >C12-C28 | ND | 28.4 | mg/kg dry | 1 | P2D0509 | 04/05/22 15:45 | 04/09/22 19:41 | TPH 8015M | |
| >C28-C35 | ND | 28.4 | mg/kg dry | 1 | P2D0509 | 04/05/22 15:45 | 04/09/22 19:41 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *86.1 %* | | *70-130* | | *P2D0509* | *04/05/22 15:45* | *04/09/22 19:41* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *89.8 %* | | *70-130* | | *P2D0509* | *04/05/22 15:45* | *04/09/22 19:41* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 28.4 | mg/kg dry | 1 | [CALC] | 04/05/22 15:45 | 04/09/22 19:41 | calc | |



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| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## C-11

**2D04008-11 (Soil)**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Permian Basin Environmental Lab, L.P.** | | | | | | | | | |
| **BTEX by 8021B** | | | | | | | | | |
| Benzene | ND | 0.00110 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 22:41 | EPA 8021B | |
| Toluene | ND | 0.00110 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 22:41 | EPA 8021B | |
| Ethylbenzene | ND | 0.00110 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 22:41 | EPA 8021B | |
| Xylene (p/m) | ND | 0.00220 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 22:41 | EPA 8021B | |
| Xylene (o) | ND | 0.00110 | mg/kg dry | 1 | P2D0503 | 04/05/22 13:36 | 04/05/22 22:41 | EPA 8021B | |
| *Surrogate: 4-Bromofluorobenzene* | | *98.6 %* | | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 22:41* | *EPA 8021B* | |
| *Surrogate: 1,4-Difluorobenzene* | | *105 %* | | *80-120* | | *P2D0503* | *04/05/22 13:36* | *04/05/22 22:41* | *EPA 8021B* | |
| **General Chemistry Parameters by EPA / Standard Methods** | | | | | | | | | |
| **Chloride** | **82.4** | 1.10 | mg/kg dry | 1 | P2D0607 | 04/06/22 13:57 | 04/06/22 18:53 | EPA 300.0 | |
| **% Moisture** | **9.0** | 0.1 | % | 1 | P2D0602 | 04/06/22 10:39 | 04/06/22 10:58 | ASTM D2216 | |
| **Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M** | | | | | | | | | |
| C6-C12 | ND | 27.5 | mg/kg dry | 1 | P2D0509 | 04/05/22 15:45 | 04/09/22 20:02 | TPH 8015M | |
| >C12-C28 | ND | 27.5 | mg/kg dry | 1 | P2D0509 | 04/05/22 15:45 | 04/09/22 20:02 | TPH 8015M | |
| >C28-C35 | ND | 27.5 | mg/kg dry | 1 | P2D0509 | 04/05/22 15:45 | 04/09/22 20:02 | TPH 8015M | |
| *Surrogate: 1-Chlorooctane* | | *90.4 %* | | *70-130* | | *P2D0509* | *04/05/22 15:45* | *04/09/22 20:02* | *TPH 8015M* | |
| *Surrogate: o-Terphenyl* | | *94.3 %* | | *70-130* | | *P2D0509* | *04/05/22 15:45* | *04/09/22 20:02* | *TPH 8015M* | |
| Total Petroleum Hydrocarbon C6-C35 | ND | 27.5 | mg/kg dry | 1 | [CALC] | 04/05/22 15:45 | 04/09/22 20:02 | calc | |



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| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## BTEX by 8021B - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P2D0503 - General Preparation (GC)** | | | | | | | | | | |
| **Blank (P2D0503-BLK1)** | | | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Benzene | ND | 0.00100 | mg/kg wet | | | | | | | |
| Toluene | ND | 0.00100 | " | | | | | | | |
| Ethylbenzene | ND | 0.00100 | " | | | | | | | |
| Xylene (p/m) | ND | 0.00200 | " | | | | | | | |
| Xylene (o) | ND | 0.00100 | " | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.119* | | " | *0.120* | | *98.8* | *80-120* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.126* | | " | *0.120* | | *105* | *80-120* | | | |
| **LCS (P2D0503-BS1)** | | | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Benzene | 0.100 | 0.00100 | mg/kg wet | 0.100 | | 100 | 80-120 | | | |
| Toluene | 0.0978 | 0.00100 | " | 0.100 | | 97.8 | 80-120 | | | |
| Ethylbenzene | 0.114 | 0.00100 | " | 0.100 | | 114 | 80-120 | | | |
| Xylene (p/m) | 0.219 | 0.00200 | " | 0.200 | | 110 | 80-120 | | | |
| Xylene (o) | 0.102 | 0.00100 | " | 0.100 | | 102 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.115* | | " | *0.120* | | *96.0* | *80-120* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.124* | | " | *0.120* | | *103* | *80-120* | | | |
| **LCS Dup (P2D0503-BSD1)** | | | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Benzene | 0.0939 | 0.00100 | mg/kg wet | 0.100 | | 93.9 | 80-120 | 6.60 | 20 | |
| Toluene | 0.0934 | 0.00100 | " | 0.100 | | 93.4 | 80-120 | 4.61 | 20 | |
| Ethylbenzene | 0.111 | 0.00100 | " | 0.100 | | 111 | 80-120 | 2.81 | 20 | |
| Xylene (p/m) | 0.212 | 0.00200 | " | 0.200 | | 106 | 80-120 | 3.44 | 20 | |
| Xylene (o) | 0.0994 | 0.00100 | " | 0.100 | | 99.4 | 80-120 | 2.80 | 20 | |
| *Surrogate: 4-Bromofluorobenzene* | *0.116* | | " | *0.120* | | *96.9* | *80-120* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.123* | | " | *0.120* | | *102* | *80-120* | | | |
| **Calibration Check (P2D0503-CCV1)** | | | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Benzene | 0.0825 | 0.00100 | mg/kg wet | 0.0900 | | 91.7 | 80-120 | | | |
| Toluene | 0.0801 | 0.00100 | " | 0.0900 | | 89.0 | 80-120 | | | |
| Ethylbenzene | 0.0840 | 0.00100 | " | 0.0900 | | 93.3 | 80-120 | | | |
| Xylene (p/m) | 0.173 | 0.00200 | " | 0.180 | | 96.1 | 80-120 | | | |
| Xylene (o) | 0.0819 | 0.00100 | " | 0.0900 | | 91.0 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.119* | | " | *0.120* | | *99.3* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.128* | | " | *0.120* | | *107* | *75-125* | | | |



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| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## BTEX by 8021B - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P2D0503 - General Preparation (GC)** | | | | | | | | | | |
| **Calibration Check (P2D0503-CCV2)** | | | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Benzene | 0.114 | 0.00100 | mg/kg wet | 0.100 | | 114 | 80-120 | | | |
| Toluene | 0.110 | 0.00100 | " | 0.100 | | 110 | 80-120 | | | |
| Ethylbenzene | 0.119 | 0.00100 | " | 0.100 | | 119 | 80-120 | | | |
| Xylene (p/m) | 0.239 | 0.00200 | " | 0.200 | | 119 | 80-120 | | | |
| Xylene (o) | 0.114 | 0.00100 | " | 0.100 | | 114 | 80-120 | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.126* | | *"* | *0.120* | | *105* | *75-125* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.122* | | *"* | *0.120* | | *101* | *75-125* | | | |
| **Calibration Check (P2D0503-CCV3)** | | | | Prepared: 04/05/22 Analyzed: 04/06/22 | | | | | | |
| Benzene | 0.119 | 0.00100 | mg/kg wet | 0.100 | | 119 | 80-120 | | | |
| Toluene | 0.116 | 0.00100 | " | 0.100 | | 116 | 80-120 | | | |
| Ethylbenzene | 0.119 | 0.00100 | " | 0.100 | | 119 | 80-120 | | | |
| Xylene (p/m) | 0.245 | 0.00200 | " | 0.200 | | 122 | 80-120 | | | Z7 |
| Xylene (o) | 0.118 | 0.00100 | " | 0.100 | | 118 | 80-120 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.116* | | *"* | *0.120* | | *96.6* | *75-125* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.123* | | *"* | *0.120* | | *103* | *75-125* | | | |
| **Matrix Spike (P2D0503-MS1)** | | **Source: 2D05006-04** | | Prepared: 04/05/22 Analyzed: 04/06/22 | | | | | | |
| Benzene | 0.0501 | 0.00101 | mg/kg dry | 0.101 | ND | 49.6 | 80-120 | | | QM-05 |
| Toluene | 0.0423 | 0.00101 | " | 0.101 | ND | 41.9 | 80-120 | | | QM-05 |
| Ethylbenzene | 0.0419 | 0.00101 | " | 0.101 | ND | 41.5 | 80-120 | | | QM-05 |
| Xylene (p/m) | 0.0787 | 0.00202 | " | 0.202 | ND | 39.0 | 80-120 | | | QM-05 |
| Xylene (o) | 0.0389 | 0.00101 | " | 0.101 | ND | 38.5 | 80-120 | | | QM-05 |
| *Surrogate: 1,4-Difluorobenzene* | *0.129* | | *"* | *0.121* | | *106* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.122* | | *"* | *0.121* | | *101* | *80-120* | | | |
| **Matrix Spike Dup (P2D0503-MSD1)** | | **Source: 2D05006-04** | | Prepared: 04/05/22 Analyzed: 04/06/22 | | | | | | |
| Benzene | 0.0582 | 0.00101 | mg/kg dry | 0.101 | ND | 57.7 | 80-120 | 15.1 | 20 | QM-05 |
| Toluene | 0.0490 | 0.00101 | " | 0.101 | ND | 48.5 | 80-120 | 14.6 | 20 | QM-05 |
| Ethylbenzene | 0.0472 | 0.00101 | " | 0.101 | ND | 46.7 | 80-120 | 11.7 | 20 | QM-05 |
| Xylene (p/m) | 0.0865 | 0.00202 | " | 0.202 | ND | 42.8 | 80-120 | 9.45 | 20 | QM-05 |
| Xylene (o) | 0.0419 | 0.00101 | " | 0.101 | ND | 41.5 | 80-120 | 7.35 | 20 | QM-05 |
| *Surrogate: 4-Bromofluorobenzene* | *0.125* | | *"* | *0.121* | | *103* | *80-120* | | | |
| *Surrogate: 1,4-Difluorobenzene* | *0.129* | | *"* | *0.121* | | *106* | *80-120* | | | |



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|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P2D0510 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Blank (P2D0510-BLK1)** | | | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Chloride | ND | 1.00 | mg/kg wet | | | | | | | |
| **LCS (P2D0510-BS1)** | | | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Chloride | 40.4 | | mg/kg | 40.0 | | 101 | 90-110 | | | |
| **LCS Dup (P2D0510-BSD1)** | | | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Chloride | 41.2 | | mg/kg | 40.0 | | 103 | 90-110 | 2.07 | 10 | |
| **Calibration Check (P2D0510-CCV1)** | | | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Chloride | 19.8 | | mg/kg | 20.0 | | 98.9 | 90-110 | | | |
| **Calibration Check (P2D0510-CCV2)** | | | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Chloride | 20.2 | | mg/kg | 20.0 | | 101 | 90-110 | | | |
| **Calibration Check (P2D0510-CCV3)** | | | | Prepared: 04/05/22 Analyzed: 04/06/22 | | | | | | |
| Chloride | 20.3 | | mg/kg | 20.0 | | 102 | 90-110 | | | |
| **Matrix Spike (P2D0510-MS1)** | | **Source: 2D01006-02** | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Chloride | 2010 | 5.68 | mg/kg dry | 284 | 1610 | 142 | 80-120 | | | QM-05 |
| **Matrix Spike (P2D0510-MS2)** | | **Source: 2D01006-11** | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Chloride | 1820 | 5.56 | mg/kg dry | 278 | 1470 | 124 | 80-120 | | | QM-05 |
| **Matrix Spike Dup (P2D0510-MSD1)** | | **Source: 2D01006-02** | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Chloride | 2000 | 5.68 | mg/kg dry | 284 | 1610 | 140 | 80-120 | 0.292 | 20 | QM-05 |
| **Matrix Spike Dup (P2D0510-MSD2)** | | **Source: 2D01006-11** | | Prepared & Analyzed: 04/05/22 | | | | | | |
| Chloride | 1810 | 5.56 | mg/kg dry | 278 | 1470 | 120 | 80-120 | 0.601 | 20 | |



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| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P2D0602 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Blank (P2D0602-BLK1)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | ND | 0.1 | % | | | | | | | |
| **Blank (P2D0602-BLK2)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | ND | 0.1 | % | | | | | | | |
| **Blank (P2D0602-BLK3)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | ND | 0.1 | % | | | | | | | |
| **Blank (P2D0602-BLK4)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | ND | 0.1 | % | | | | | | | |
| **Duplicate (P2D0602-DUP1)** | | **Source: 2D04008-10** | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | 12.0 | 0.1 | % | | 12.0 | | | 0.00 | 20 | |
| **Duplicate (P2D0602-DUP2)** | | **Source: 2D04009-09** | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | 5.0 | 0.1 | % | | 5.0 | | | 0.00 | 20 | |
| **Duplicate (P2D0602-DUP3)** | | **Source: 2D04009-24** | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | 9.0 | 0.1 | % | | 9.0 | | | 0.00 | 20 | |
| **Duplicate (P2D0602-DUP4)** | | **Source: 2D04009-34** | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | 7.0 | 0.1 | % | | 6.0 | | | 15.4 | 20 | |
| **Duplicate (P2D0602-DUP5)** | | **Source: 2D04016-01** | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | 3.0 | 0.1 | % | | 3.0 | | | 0.00 | 20 | |
| **Duplicate (P2D0602-DUP6)** | | **Source: 2D04017-07** | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | 7.0 | 0.1 | % | | 7.0 | | | 0.00 | 20 | |



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| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P2D0602 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Duplicate (P2D0602-DUP7)** | **Source: 2D04022-02** | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| % Moisture | 3.0 | 0.1 | % | | 3.0 | | | 0.00 | 20 | |
| **Batch P2D0607 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Blank (P2D0607-BLK1)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | ND | 1.00 | mg/kg wet | | | | | | | |
| **LCS (P2D0607-BS1)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 41.7 | | mg/kg | 40.0 | | 104 | 90-110 | | | |
| **LCS Dup (P2D0607-BSD1)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 42.0 | | mg/kg | 40.0 | | 105 | 90-110 | 0.626 | 10 | |
| **Calibration Blank (P2D0607-CCB1)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 0.103 | | mg/kg wet | | | | | | | |
| **Calibration Blank (P2D0607-CCB2)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 0.169 | | mg/kg wet | | | | | | | |
| **Calibration Check (P2D0607-CCV1)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 20.7 | | mg/kg | 20.0 | | 103 | 90-110 | | | |
| **Calibration Check (P2D0607-CCV2)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 20.6 | | mg/kg | 20.0 | | 103 | 90-110 | | | |
| **Calibration Check (P2D0607-CCV3)** | | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 20.3 | | mg/kg | 20.0 | | 102 | 90-110 | | | |



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| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P2D0607 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Matrix Spike (P2D0607-MS1)** | **Source: 2D05010-01** | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 2310 | 5.56 | mg/kg dry | 278 | 1890 | 151 | 80-120 | | | QM-05 |
| **Matrix Spike (P2D0607-MS2)** | **Source: 2D04009-02** | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 411 | 1.06 | mg/kg dry | 266 | 147 | 99.3 | 80-120 | | | |
| **Matrix Spike Dup (P2D0607-MSD1)** | **Source: 2D05010-01** | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 2340 | 5.56 | mg/kg dry | 278 | 1890 | 160 | 80-120 | 1.12 | 20 | QM-05 |
| **Matrix Spike Dup (P2D0607-MSD2)** | **Source: 2D04009-02** | | | Prepared & Analyzed: 04/06/22 | | | | | | |
| Chloride | 412 | 1.06 | mg/kg dry | 266 | 147 | 99.6 | 80-120 | 0.222 | 20 | |



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| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

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

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P2D0506 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Blank (P2D0506-BLK1)** | | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | ND | 25.0 | mg/kg wet | | | | | | | |
| >C12-C28 | ND | 25.0 | " | | | | | | | |
| >C28-C35 | ND | 25.0 | " | | | | | | | |
| *Surrogate: 1-Chlorooctane* | *84.5* | | " | *100* | | *84.5* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *44.2* | | " | *50.0* | | *88.3* | *70-130* | | | |
| **LCS (P2D0506-BS1)** | | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | 806 | 25.0 | mg/kg wet | 1000 | | 80.6 | 75-125 | | | |
| >C12-C28 | 891 | 25.0 | " | 1000 | | 89.1 | 75-125 | | | |
| *Surrogate: 1-Chlorooctane* | *120* | | " | *100* | | *120* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *48.8* | | " | *50.0* | | *97.7* | *70-130* | | | |
| **LCS Dup (P2D0506-BSD1)** | | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | 813 | 25.0 | mg/kg wet | 1000 | | 81.3 | 75-125 | 0.850 | 20 | |
| >C12-C28 | 889 | 25.0 | " | 1000 | | 88.9 | 75-125 | 0.224 | 20 | |
| *Surrogate: 1-Chlorooctane* | *116* | | " | *100* | | *116* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *51.0* | | " | *50.0* | | *102* | *70-130* | | | |
| **Calibration Check (P2D0506-CCV1)** | | | | Prepared: 04/05/22 Analyzed: 04/11/22 | | | | | | |
| C6-C12 | 476 | 25.0 | mg/kg wet | 500 | | 95.2 | 85-115 | | | |
| >C12-C28 | 481 | 25.0 | " | 500 | | 96.3 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *128* | | " | *100* | | *128* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *60.2* | | " | *50.0* | | *120* | *70-130* | | | |
| **Calibration Check (P2D0506-CCV2)** | | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | 482 | 25.0 | mg/kg wet | 500 | | 96.3 | 85-115 | | | |
| >C12-C28 | 470 | 25.0 | " | 500 | | 94.1 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *112* | | " | *100* | | *112* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *49.2* | | " | *50.0* | | *98.5* | *70-130* | | | |



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| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

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

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P2D0506 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Matrix Spike (P2D0506-MS1)** | **Source: 2D04008-08** | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | 751 | 27.2 | mg/kg dry | 1090 | 16.6 | 67.6 | 75-125 | | | QM-05 |
| >C12-C28 | 823 | 27.2 | " | 1090 | ND | 75.7 | 75-125 | | | |
| *Surrogate: 1-Chlorooctane* | *106* | | *"* | *109* | | *97.8* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *43.3* | | *"* | *54.3* | | *79.7* | *70-130* | | | |
| **Matrix Spike Dup (P2D0506-MSD1)** | **Source: 2D04008-08** | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | 783 | 27.2 | mg/kg dry | 1090 | 16.6 | 70.5 | 75-125 | 4.21 | 20 | QM-05 |
| >C12-C28 | 850 | 27.2 | " | 1090 | ND | 78.2 | 75-125 | 3.24 | 20 | |
| *Surrogate: 1-Chlorooctane* | *107* | | *"* | *109* | | *98.1* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *43.1* | | *"* | *54.3* | | *79.3* | *70-130* | | | |
| **Batch P2D0509 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Blank (P2D0509-BLK1)** | | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | ND | 25.0 | mg/kg wet | | | | | | | |
| >C12-C28 | ND | 25.0 | " | | | | | | | |
| >C28-C35 | ND | 25.0 | " | | | | | | | |
| *Surrogate: 1-Chlorooctane* | *102* | | *"* | *100* | | *102* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *53.7* | | *"* | *50.0* | | *107* | *70-130* | | | |
| **LCS (P2D0509-BS1)** | | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | 875 | 25.0 | mg/kg wet | 1000 | | 87.5 | 75-125 | | | |
| >C12-C28 | 940 | 25.0 | " | 1000 | | 94.0 | 75-125 | | | |
| *Surrogate: 1-Chlorooctane* | *120* | | *"* | *100* | | *120* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *53.0* | | *"* | *50.0* | | *106* | *70-130* | | | |
| **LCS Dup (P2D0509-BSD1)** | | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | 895 | 25.0 | mg/kg wet | 1000 | | 89.5 | 75-125 | 2.25 | 20 | |
| >C12-C28 | 951 | 25.0 | " | 1000 | | 95.1 | 75-125 | 1.14 | 20 | |
| *Surrogate: 1-Chlorooctane* | *104* | | *"* | *100* | | *104* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *57.6* | | *"* | *50.0* | | *115* | *70-130* | | | |



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| | |
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| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

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

## Permian Basin Environmental Lab, L.P.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch P2D0509 - *** DEFAULT PREP *** ** | | | | | | | | | | |
| **Calibration Check (P2D0509-CCV1)** | | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | 478 | 25.0 | mg/kg wet | 500 | | 95.7 | 85-115 | | | |
| >C12-C28 | 479 | 25.0 | " | 500 | | 95.7 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *118* | | *"* | *100* | | *118* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *53.0* | | *"* | *50.0* | | *106* | *70-130* | | | |
| **Calibration Check (P2D0509-CCV2)** | | | | Prepared: 04/05/22 Analyzed: 04/09/22 | | | | | | |
| C6-C12 | 477 | 25.0 | mg/kg wet | 500 | | 95.5 | 85-115 | | | |
| >C12-C28 | 497 | 25.0 | " | 500 | | 99.3 | 85-115 | | | |
| *Surrogate: 1-Chlorooctane* | *121* | | *"* | *100* | | *121* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *54.4* | | *"* | *50.0* | | *109* | *70-130* | | | |
| **Matrix Spike (P2D0509-MS1)** | **Source: 2D04009-26** | | | Prepared: 04/05/22 Analyzed: 04/10/22 | | | | | | |
| C6-C12 | 789 | 26.6 | mg/kg dry | 1060 | 17.8 | 72.5 | 75-125 | | | QM-05 |
| >C12-C28 | 862 | 26.6 | " | 1060 | 18.4 | 79.3 | 75-125 | | | |
| *Surrogate: 1-Chlorooctane* | *116* | | *"* | *106* | | *109* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *49.4* | | *"* | *53.2* | | *92.9* | *70-130* | | | |
| **Matrix Spike Dup (P2D0509-MSD1)** | **Source: 2D04009-26** | | | Prepared: 04/05/22 Analyzed: 04/10/22 | | | | | | |
| C6-C12 | 792 | 26.6 | mg/kg dry | 1060 | 17.8 | 72.8 | 75-125 | 0.438 | 20 | QM-05 |
| >C12-C28 | 859 | 26.6 | " | 1060 | 18.4 | 79.0 | 75-125 | 0.303 | 20 | |
| *Surrogate: 1-Chlorooctane* | *104* | | *"* | *106* | | *98.1* | *70-130* | | | |
| *Surrogate: o-Terphenyl* | *44.3* | | *"* | *53.2* | | *83.2* | *70-130* | | | |



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| | |
|---|---|
| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

## Notes and Definitions

| | |
|---|---|
| Z7 | CCV recovery was outside the recommended acceptance limits due to spiking error. QC batch accepted based on LCS/LCSD recoveries and RPD. |
| ROI | Received on Ice |
| QM-05 | The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable. |
| NPBEL C( | Chain of Custody was not generated at PBELAB |
| BULK | Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range |
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |
| LCS | Laboratory Control Spike |
| MS | Matrix Spike |
| Dup | Duplicate |

Report Approved By: Brent Barron Date: 4/11/2022

Brent Barron, Laboratory Director/Technical Director



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| Larson & Associates, Inc. | Project: Culebre Bluff Fed Com 3 |
| P.O. Box 50685 | Project Number: 19-0180-07 |
| Midland TX, 79710 | Project Manager: Mark Larson |

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

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LTB

№ 1949

# CHAIN-OF-CUSTOD



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

DATE: 4/4/22 PAGE 1 OF

PO#: LAB WORK ORDER#: 2D04008

PROJECT LOCATION OR NAME: Culebra Bluff Fed Com 3

LAI PROJECT #: 19-0180-07 COLLECTOR: JR

Data Reported to:

TRRP report? ☐ Yes ☐ No

TIME ZONE: Time zone/State:

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 ☐ 8021B | 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-56 | 1 | 3/28 | 13:04 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |
| C-57 | 2 | 3/28 | 13:06 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |
| C-63 | 3 | 3/28 | 13:30 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |
| C-65 | 4 | 3/28 | 13:02 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |
| C-89 | 5 | 3/29 | 9:00 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |
| C-90 | 6 | 3/29 | 9:02 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |
| C-91 | 7 | 3/29 | 9:04 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |
| C-92 | 8 | 3/29 | 9:06 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |
| C-2 | 9 | 3/28 | 15:36 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |
| C-10 | 10 | 3/30 | 17:00 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |
| C-11 | 11 | 3/30 | 17:02 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | |

TOTAL 11

RELINQUISHED BY:(Signature) Jen DeS DATE/TIME 4/4/22 9:58 RECEIVED BY: (Signature) Tina Bledsoe

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

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

LABORATORY: PBE Labs

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

LABORATORY USE ONLY:
RECEIVING TEMP: -13.1 -12.1 THERM#: CF1 L2
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

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# Sample Receipt Checklist

| Yes | | Notes |
|---|---|---|
| ✓ | Chain of custody present? | |
| | Chain of custody signed/dated/time when relinquished and received? | |
| | Sample date/time present on COC for all samples? | |
| | Samplers name present on COC? | |
| | Chain of Custody agrees with sample labels? | |
| | Sample containers intact? | |
| X | Custody seals intact on sample bottles? | |
| ✓ | Samples in proper container/bottle? | |
| | Sufficient sample volume for indicated test? | |
| | All samples received within holding time? | |
| | Samples received within appropriate temp? | -12.1 |
| | Analysis requested for all samples submitted? | |
| | Shipping container/cooler in good condition? | |
| | Custody seals intact on shipping container/cooler? | |

Login Notes:
203 2D04008



PBELAB

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



# SAMPLE VARIANCE/NON-CONFORMANCE

Variance/Discrepancy:

Resolution:

Client Contacted

Name:

Date/Time:

NC Initiated by:_____ Approved by:_____



Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:21:21 PM

eurofins | Environment Testing America

# ANALYTICAL REPORT

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

Laboratory Job ID: 880-10005-1
Laboratory Sample Delivery Group: 19-0180-07
Client Project/Site: Culebre Bluff

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

Attn: Mr. Mark J Larson

Holly Taylor

*Authorized for release by:*
*1/18/2022 11:08:36 AM*

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

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Laboratory Job ID: 880-10005-1
SDG: 19-0180-07

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# Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| 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 |
|---|---|
| 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: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Job ID: 880-10005-1

**Laboratory: Eurofins Midland**

**Narrative**

**Job Narrative**
**880-10005-1**

**Receipt**
The samples were received on 1/10/2022 8:54 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 preparation batch 880-16392 and analytical batch 880-16475 were outside control limits. The associated laboratory control sample (LCS) recovery was within acceptance limits; therefore data was accepted.

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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-16424 and analytical batch 880-16336 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 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-21 (880-10005-21), C-27 (880-10005-27), C-39 (880-10005-39), C-48 (880-10005-48), C-49 (880-10005-49), C-50 (880-10005-50), C-51 (880-10005-51), (880-10005-A-48-E MS) and (880-10005-A-48-F 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 880-16446 and analytical batch 880-16870 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.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-1

**Date Collected: 01/07/22 10:00**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-1**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:10 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:10 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:10 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:10 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:10 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *121* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 11:10* | *1* |
| *1,4-Difluorobenzene (Surr)* | *83* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 11:10* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 14:38 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 14:38 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 14:38 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *110* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 14:38* | *1* |
| *o-Terphenyl (Surr)* | *109* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 14:38* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **358** | | 5.04 | | mg/Kg | | | 01/15/22 18:07 | 1 |

## Client Sample ID: C-2

**Date Collected: 01/07/22 10:02**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-2**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:31 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:31 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:31 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:31 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:31 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *121* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 11:31* | *1* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 11:31* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-2 Lab Sample ID: 880-10005-2

**Date Collected: 01/07/22 10:02** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **299** | | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 15:40 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **299** | | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 15:40 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 15:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 15:40* | *1* |
| *o-Terphenyl (Surr)* | *98* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 15:40* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **3210** | | 24.9 | | mg/Kg | | | 01/15/22 18:15 | 5 |

## Client Sample ID: C-3 Lab Sample ID: 880-10005-3

**Date Collected: 01/07/22 10:04** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:51 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:51 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:51 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:51 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:51 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 11:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 11:51* | *1* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 11:51* | *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 | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 16:00 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 16:00 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-3 Lab Sample ID: 880-10005-3

**Date Collected: 01/07/22 10:04** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 16:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 16:00* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 16:00* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2240** | | 24.8 | | mg/Kg | | | 01/15/22 18:23 | 5 |

## Client Sample ID: C-4 Lab Sample ID: 880-10005-4

**Date Collected: 01/07/22 10:06** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:12 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:12 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:12 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:12 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:12 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *131* | *S1+* | *70 - 130* | *01/10/22 10:10* | *01/11/22 12:12* | *1* |
| *1,4-Difluorobenzene (Surr)* | *77* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 12:12* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 16:21 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 16:21 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 16:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *91* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 16:21* | *1* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 16:21* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **695** | | 4.99 | | mg/Kg | | | 01/15/22 18:32 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-5

**Date Collected: 01/07/22 10:08**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-5**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:32 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:32 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:32 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:32 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:32 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 12:32* | *1* |
| *1,4-Difluorobenzene (Surr)* | *82* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 12:32* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 16:41 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 16:41 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 16:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *97* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 16:41* | *1* |
| *o-Terphenyl (Surr)* | *98* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 16:41* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1440** | | 5.00 | | mg/Kg | | | 01/17/22 14:04 | 1 |

## Client Sample ID: C-6

**Date Collected: 01/07/22 10:10**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-6**
**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 | | 01/10/22 10:10 | 01/11/22 12:52 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:52 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:52 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:52 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:52 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 12:52 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *130* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 12:52* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 12:52* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-6 Lab Sample ID: 880-10005-6

**Date Collected: 01/07/22 10:10** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 17:02 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 17:02 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 17:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *97* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 17:02* | *1* |
| *o-Terphenyl (Surr)* | *100* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 17:02* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1900** | | 25.0 | | mg/Kg | | | 01/15/22 18:58 | 5 |

## Client Sample ID: C-7 Lab Sample ID: 880-10005-7

**Date Collected: 01/07/22 10:12** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:13 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:13 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:13 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:13 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:13 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *124* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 13:13* | *1* |
| *1,4-Difluorobenzene (Surr)* | *74* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 13:13* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 17:23 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 17:23 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-7 Lab Sample ID: 880-10005-7

**Date Collected: 01/07/22 10:12** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 17:23 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *97* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 17:23* | *1* |
| *o-Terphenyl (Surr)* | *98* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 17:23* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1500** | | 25.0 | | mg/Kg | | | 01/15/22 19:07 | 5 |

## Client Sample ID: C-8 Lab Sample ID: 880-10005-8

**Date Collected: 01/07/22 10:14** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:33 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:33 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:33 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:33 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:33 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *131* | *S1+* | *70 - 130* | *01/10/22 10:10* | *01/11/22 13:33* | *1* |
| *1,4-Difluorobenzene (Surr)* | *113* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 13:33* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 17:43 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 17:43 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 17:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *94* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 17:43* | *1* |
| *o-Terphenyl (Surr)* | *96* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 17:43* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2150** | | 24.9 | | mg/Kg | | | 01/15/22 19:15 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-9

**Lab Sample ID: 880-10005-9**
**Matrix: Solid**
**Date Collected: 01/07/22 10:16**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:54 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:54 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:54 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:54 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:54 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 13:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *140* | *S1+* | *70 - 130* | *01/10/22 10:10* | *01/11/22 13:54* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 13:54* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 18:04 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 18:04 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 18:04 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *88* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 18:04* | *1* |
| *o-Terphenyl (Surr)* | *92* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 18:04* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2080** | | 49.5 | | mg/Kg | | | 01/15/22 19:23 | 10 |

## Client Sample ID: C-10

**Lab Sample ID: 880-10005-10**
**Matrix: Solid**
**Date Collected: 01/07/22 10:18**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 14:14 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 14:14 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 14:14 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 14:14 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 14:14 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 14:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *149* | *S1+* | *70 - 130* | *01/10/22 10:10* | *01/11/22 14:14* | *1* |
| *1,4-Difluorobenzene (Surr)* | *121* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 14:14* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-10 Lab Sample ID: 880-10005-10

**Date Collected: 01/07/22 10:18** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00396 | U | 0.00396 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 18:25 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 18:25 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 18:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *93* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 18:25* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 18:25* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1950** | **F1** | 24.9 | | mg/Kg | | | 01/15/22 19:32 | 5 |

## Client Sample ID: C-11 Lab Sample ID: 880-10005-11

**Date Collected: 01/07/22 10:20** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:36 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:36 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:36 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:36 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:36 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *121* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 15:36* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 15:36* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 19:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 19:07 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-11
**Lab Sample ID: 880-10005-11**
**Date Collected: 01/07/22 10:20** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 19:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *98* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 19:07* | *1* |
| *o-Terphenyl (Surr)* | *99* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 19:07* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1500** | | 25.0 | | mg/Kg | | | 01/15/22 19:57 | 5 |

## Client Sample ID: C-12
**Lab Sample ID: 880-10005-12**
**Date Collected: 01/07/22 10:22** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:57 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:57 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:57 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:57 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:57 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 15:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *118* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 15:57* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 15:57* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 19:28 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 19:28 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 19:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *102* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 19:28* | *1* |
| *o-Terphenyl (Surr)* | *101* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 19:28* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **846** | | 5.02 | | mg/Kg | | | 01/15/22 20:05 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-13

**Date Collected: 01/07/22 10:24**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-13**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:17 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:17 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:17 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:17 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:17 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:17 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *123* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 16:17* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 16:17* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 19:49 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 19:49 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 19:49 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *118* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 19:49* | *1* |
| *o-Terphenyl (Surr)* | *118* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 19:49* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1160** | | 4.98 | | mg/Kg | | | 01/15/22 20:30 | 1 |

## Client Sample ID: C-14

**Date Collected: 01/07/22 10:26**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-14**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:37 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:37 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:37 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:37 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:37 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *132* | *S1+* | *70 - 130* | *01/10/22 10:10* | *01/11/22 16:37* | *1* |
| *1,4-Difluorobenzene (Surr)* | *85* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 16:37* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-14 Lab Sample ID: 880-10005-14

**Date Collected: 01/07/22 10:26** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00404 | U | 0.00404 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 20:10 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 20:10 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 20:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *93* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 20:10* | *1* |
| *o-Terphenyl (Surr)* | *96* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 20:10* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2380** | | 25.1 | | mg/Kg | | | 01/15/22 20:38 | 5 |

## Client Sample ID: C-15 Lab Sample ID: 880-10005-15

**Date Collected: 01/07/22 10:28** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:58 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:58 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:58 | 1 |
| m,p-Xylenes | <0.00397 | U | 0.00397 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:58 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:58 | 1 |
| Xylenes, Total | <0.00397 | U | 0.00397 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 16:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *121* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 16:58* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 16:58* | *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 | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 20:32 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 20:32 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-15 Lab Sample ID: 880-10005-15

**Date Collected: 01/07/22 10:28** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 20:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *109* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 20:32* | *1* |
| *o-Terphenyl (Surr)* | *111* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 20:32* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1340** | | 25.0 | | mg/Kg | | | 01/15/22 20:47 | 5 |

## Client Sample ID: C-16 Lab Sample ID: 880-10005-16

**Date Collected: 01/07/22 10:30** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:18 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:18 | 1 |
| **Ethylbenzene** | **0.00335** | | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:18 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:18 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:18 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *124* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 17:18* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 17:18* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 20:53 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 20:53 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 20:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *92* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 20:53* | *1* |
| *o-Terphenyl (Surr)* | *94* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 20:53* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1580** | | 24.8 | | mg/Kg | | | 01/15/22 20:55 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-17

**Date Collected: 01/07/22 10:32**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-17**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:39 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:39 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:39 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:39 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:39 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *121* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 17:39* | *1* |
| *1,4-Difluorobenzene (Surr)* | *75* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 17:39* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **120** | | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 21:15 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **120** | | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 21:15 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 21:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *82* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 21:15* | *1* |
| *o-Terphenyl (Surr)* | *82* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 21:15* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1410** | | 25.0 | | mg/Kg | | | 01/15/22 21:03 | 5 |

## Client Sample ID: C-18

**Date Collected: 01/07/22 10:34**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-18**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:59 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:59 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:59 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:59 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:59 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 17:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *118* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 17:59* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 17:59* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-18 Lab Sample ID: 880-10005-18

**Date Collected: 01/07/22 10:34** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 21:37 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 21:37 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 21:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *96* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 21:37* | *1* |
| *o-Terphenyl (Surr)* | *97* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 21:37* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2820** | | 25.0 | | mg/Kg | | | 01/15/22 21:12 | 5 |

## Client Sample ID: C-19 Lab Sample ID: 880-10005-19

**Date Collected: 01/07/22 10:36** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:19 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:19 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:19 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:19 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:19 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:19 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *131* | *S1+* | *70 - 130* | *01/10/22 10:10* | *01/11/22 18:19* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 18:19* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 21:58 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 21:58 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-19 Lab Sample ID: 880-10005-19

**Date Collected: 01/07/22 10:36** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 21:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *89* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 21:58* | *1* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 21:58* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2570** | | 25.2 | | mg/Kg | | | 01/15/22 21:20 | 5 |

## Client Sample ID: C-20 Lab Sample ID: 880-10005-20

**Date Collected: 01/07/22 10:38** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:40 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:40 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:40 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:40 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:40 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/10/22 10:10 | 01/11/22 18:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 18:40* | *1* |
| *1,4-Difluorobenzene (Surr)* | *80* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 18:40* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 22:20 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 22:20 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:10 | 01/11/22 22:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *94* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 22:20* | *1* |
| *o-Terphenyl (Surr)* | *96* | | *70 - 130* | *01/10/22 11:10* | *01/11/22 22:20* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **34.1** | | 24.8 | | mg/Kg | | | 01/14/22 17:18 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-21

**Date Collected: 01/07/22 10:40**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-21**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U F1 | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:02 | 1 |
| Toluene | <0.00199 | U F1 | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:02 | 1 |
| Ethylbenzene | <0.00199 | U F1 | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:02 | 1 |
| m,p-Xylenes | <0.00398 | U F1 | 0.00398 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:02 | 1 |
| o-Xylene | <0.00199 | U F1 | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:02 | 1 |
| Xylenes, Total | <0.00398 | U F1 | 0.00398 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 17:02* | *1* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 17:02* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 11:42 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 11:42 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 11:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *69* | *S1-* | *70 - 130* | *01/10/22 11:50* | *01/11/22 11:42* | *1* |
| *o-Terphenyl (Surr)* | *72* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 11:42* | *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 | | | 01/14/22 16:41 | 1 |

## Client Sample ID: C-22

**Date Collected: 01/07/22 10:42**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-22**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:23 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:23 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:23 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:23 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:23 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:23 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *118* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 17:23* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 17:23* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-22 Lab Sample ID: 880-10005-22

**Date Collected: 01/07/22 10:42** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 12:43 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 12:43 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 12:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *74* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 12:43* | *1* |
| *o-Terphenyl (Surr)* | *76* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 12:43* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U F1 | 5.00 | | mg/Kg | | | 01/14/22 16:47 | 1 |

## Client Sample ID: C-23 Lab Sample ID: 880-10005-23

**Date Collected: 01/07/22 10:44** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:44 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:44 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:44 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:44 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:44 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 17:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *97* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 17:44* | *1* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 17:44* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 13:04 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 13:04 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-23 Lab Sample ID: 880-10005-23

**Date Collected: 01/07/22 10:44** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 13:04 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *71* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 13:04* | *1* |
| *o-Terphenyl (Surr)* | *73* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 13:04* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.95 | U | 4.95 | | mg/Kg | | | 01/14/22 16:53 | 1 |

## Client Sample ID: C-24 Lab Sample ID: 880-10005-24

**Date Collected: 01/07/22 10:46** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:04 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:04 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:04 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:04 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:04 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:04 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *106* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 18:04* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 18:04* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 13:24 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 13:24 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 13:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *71* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 13:24* | *1* |
| *o-Terphenyl (Surr)* | *74* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 13:24* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **123** | | 4.98 | | mg/Kg | | | 01/14/22 13:35 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-25

**Lab Sample ID: 880-10005-25**
**Matrix: Solid**
**Date Collected: 01/07/22 10:48**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:25 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:25 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:25 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:25 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:25 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 18:25* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 18:25* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00404 | U | 0.00404 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 13:44 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 13:44 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 13:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *71* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 13:44* | *1* |
| *o-Terphenyl (Surr)* | *74* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 13:44* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **847** | | 5.04 | | mg/Kg | | | 01/17/22 17:42 | 1 |

## Client Sample ID: C-26

**Lab Sample ID: 880-10005-26**
**Matrix: Solid**
**Date Collected: 01/07/22 10:50**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:46 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:46 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:46 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:46 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:46 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 18:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 18:46* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 18:46* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-26 Lab Sample ID: 880-10005-26

**Date Collected: 01/07/22 10:50** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 14:05 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 14:05 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 14:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *74* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 14:05* | *1* |
| *o-Terphenyl (Surr)* | *78* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 14:05* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2450** | | 24.8 | | mg/Kg | | | 01/17/22 17:50 | 5 |

## Client Sample ID: C-27 Lab Sample ID: 880-10005-27

**Date Collected: 01/07/22 10:52** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:07 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:07 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:07 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:07 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:07 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *107* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 19:07* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 19:07* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 14:26 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 14:26 | 1 |

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# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-27 Lab Sample ID: 880-10005-27

**Date Collected: 01/07/22 10:52** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 14:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *69* | *S1-* | *70 - 130* | *01/10/22 11:50* | *01/11/22 14:26* | *1* |
| *o-Terphenyl (Surr)* | *71* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 14:26* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2740** | | 25.1 | | mg/Kg | | | 01/17/22 17:59 | 5 |

## Client Sample ID: C-28 Lab Sample ID: 880-10005-28

**Date Collected: 01/07/22 10:54** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:27 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:27 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:27 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:27 | 1 |
| **o-Xylene** | **0.00326** | | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:27 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *94* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 19:27* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 19:27* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **83.3** | | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 14:46 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **83.3** | | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 14:46 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 14:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *72* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 14:46* | *1* |
| *o-Terphenyl (Surr)* | *76* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 14:46* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **163** | | 25.0 | | mg/Kg | | | 01/17/22 18:41 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-29

**Date Collected: 01/07/22 10:56**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-29**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:48 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:48 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:48 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:48 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:48 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 19:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 19:48* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 19:48* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 15:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 15:07 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 15:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *73* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 15:07* | *1* |
| *o-Terphenyl (Surr)* | *76* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 15:07* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2870** | | 24.8 | | mg/Kg | | | 01/17/22 18:49 | 5 |

## Client Sample ID: C-30

**Date Collected: 01/07/22 10:58**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-30**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 20:09 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 20:09 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 20:09 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 20:09 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 20:09 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 20:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 20:09* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 20:09* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-30 Lab Sample ID: 880-10005-30

**Date Collected: 01/07/22 10:58** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00404 | U | 0.00404 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 15:27 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 15:27 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 15:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *74* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 15:27* | *1* |
| *o-Terphenyl (Surr)* | *77* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 15:27* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2700** | | 25.0 | | mg/Kg | | | 01/17/22 18:58 | 5 |

## Client Sample ID: C-31 Lab Sample ID: 880-10005-31

**Date Collected: 01/07/22 11:00** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:34 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:34 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:34 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:34 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:34 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:34 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 21:34* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 21:34* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **614** | | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 16:44 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **614** | | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 16:44 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-31 Lab Sample ID: 880-10005-31

**Date Collected: 01/07/22 11:00** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 16:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *77* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 16:44* | *1* |
| *o-Terphenyl (Surr)* | *84* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 16:44* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1820** | | 25.0 | | mg/Kg | | | 01/17/22 19:06 | 5 |

## Client Sample ID: C-32 Lab Sample ID: 880-10005-32

**Date Collected: 01/07/22 11:02** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:55 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:55 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:55 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:55 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:55 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 21:55 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 21:55* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 21:55* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 17:05 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 17:05 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 17:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *77* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 17:05* | *1* |
| *o-Terphenyl (Surr)* | *80* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 17:05* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2710** | | 24.8 | | mg/Kg | | | 01/14/22 21:37 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-33

**Lab Sample ID: 880-10005-33**
**Matrix: Solid**
**Date Collected: 01/07/22 11:04**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:16 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:16 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:16 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:16 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:16 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *105* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 22:16* | *1* |
| *1,4-Difluorobenzene (Surr)* | *108* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 22:16* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 19:05 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 19:05 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 19:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *81* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 19:05* | *1* |
| *o-Terphenyl (Surr)* | *82* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 19:05* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1600** | | 25.3 | | mg/Kg | | | 01/14/22 22:13 | 5 |

## Client Sample ID: C-34

**Lab Sample ID: 880-10005-34**
**Matrix: Solid**
**Date Collected: 01/07/22 11:06**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:37 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:37 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:37 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:37 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:37 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 22:37* | *1* |
| *1,4-Difluorobenzene (Surr)* | *108* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 22:37* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-34 Lab Sample ID: 880-10005-34

**Date Collected: 01/07/22 11:06** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 19:27 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 19:27 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 19:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *70* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 19:27* | *1* |
| *o-Terphenyl (Surr)* | *72* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 19:27* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2840** | | 24.9 | | mg/Kg | | | 01/14/22 22:24 | 5 |

## Client Sample ID: C-35 Lab Sample ID: 880-10005-35

**Date Collected: 01/07/22 11:08** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:58 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:58 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:58 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:58 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:58 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 22:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 22:58* | *1* |
| *1,4-Difluorobenzene (Surr)* | *108* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 22:58* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 19:50 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 19:50 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-35 Lab Sample ID: 880-10005-35

**Date Collected: 01/07/22 11:08** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 19:50 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *72* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 19:50* | *1* |
| *o-Terphenyl (Surr)* | *75* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 19:50* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2920** | | 25.0 | | mg/Kg | | | 01/14/22 22:36 | 5 |

## Client Sample ID: C-36 Lab Sample ID: 880-10005-36

**Date Collected: 01/07/22 11:10** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:19 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:19 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:19 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:19 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:19 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:19 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 23:19* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 23:19* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 20:11 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 20:11 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 20:11 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *72* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 20:11* | *1* |
| *o-Terphenyl (Surr)* | *79* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 20:11* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **3620** | | 25.0 | | mg/Kg | | | 01/14/22 22:48 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-37

**Date Collected: 01/07/22 11:12**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-37

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:40 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:40 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:40 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:40 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:40 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 23:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 23:40* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/10/22 10:13* | *01/11/22 23:40* | *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 | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **68.9** | | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 20:33 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **68.9** | | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 20:33 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 20:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *79* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 20:33* | *1* |
| *o-Terphenyl (Surr)* | *83* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 20:33* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **3340** | | 24.8 | | mg/Kg | | | 01/14/22 23:24 | 5 |

## Client Sample ID: C-38

**Date Collected: 01/07/22 11:14**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-38

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:00 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:00 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:00 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:00 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:00 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *70 - 130* | *01/10/22 10:13* | *01/12/22 00:00* | *1* |
| *1,4-Difluorobenzene (Surr)* | *110* | | *70 - 130* | *01/10/22 10:13* | *01/12/22 00:00* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-38

**Date Collected: 01/07/22 11:14**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-38**
**Matrix: Solid**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 20:56 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 20:56 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 20:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *71* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 20:56* | *1* |
| *o-Terphenyl (Surr)* | *74* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 20:56* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2710** | | 24.9 | | mg/Kg | | | 01/14/22 23:36 | 5 |

## Client Sample ID: C-39

**Date Collected: 01/07/22 11:16**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-39**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:22 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:22 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:22 | 1 |
| m,p-Xylenes | <0.00397 | U | 0.00397 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:22 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:22 | 1 |
| Xylenes, Total | <0.00397 | U | 0.00397 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *01/10/22 10:13* | *01/12/22 00:22* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/10/22 10:13* | *01/12/22 00:22* | *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 | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 21:19 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 21:19 | 1 |

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# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-39 Lab Sample ID: 880-10005-39

**Date Collected: 01/07/22 11:16** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 21:19 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *60* | *S1-* | *70 - 130* | *01/10/22 11:50* | *01/11/22 21:19* | *1* |
| *o-Terphenyl (Surr)* | *62* | *S1-* | *70 - 130* | *01/10/22 11:50* | *01/11/22 21:19* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2070** | | 24.8 | | mg/Kg | | | 01/14/22 23:47 | 5 |

## Client Sample ID: C-40 Lab Sample ID: 880-10005-40

**Date Collected: 01/07/22 11:18** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:43 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:43 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:43 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:43 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:43 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 01/10/22 10:13 | 01/12/22 00:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* | *01/10/22 10:13* | *01/12/22 00:43* | *1* |
| *1,4-Difluorobenzene (Surr)* | *111* | | *70 - 130* | *01/10/22 10:13* | *01/12/22 00:43* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 01/12/22 08:29 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 21:41 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 21:41 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 21:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *71* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 21:41* | *1* |
| *o-Terphenyl (Surr)* | *72* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 21:41* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1740** | | 25.2 | | mg/Kg | | | 01/14/22 23:59 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-41

**Date Collected: 01/07/22 11:20**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-41**
**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 | | 01/11/22 08:00 | 01/11/22 22:03 | 1 |
| Toluene | <0.00200 | U F1 | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:03 | 1 |
| Ethylbenzene | <0.00200 | U F1 | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:03 | 1 |
| m,p-Xylenes | <0.00399 | U F1 | 0.00399 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:03 | 1 |
| o-Xylene | <0.00200 | U F1 | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:03 | 1 |
| Xylenes, Total | <0.00399 | U F1 | 0.00399 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *116* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 22:03* | *1* |
| *1,4-Difluorobenzene (Surr)* | *108* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 22:03* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 02:10 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 02:10 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 02:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *93* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 02:10* | *1* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 02:10* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **869** | | 4.99 | | mg/Kg | | | 01/15/22 00:11 | 1 |

## Client Sample ID: C-42

**Date Collected: 01/07/22 11:22**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-42**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:23 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:23 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:23 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:23 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:23 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:23 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 22:23* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 22:23* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-42 Lab Sample ID: 880-10005-42

**Date Collected: 01/07/22 11:22** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 02:30 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 02:30 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 02:30 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *90* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 02:30* | *1* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 02:30* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1770** | | 25.0 | | mg/Kg | | | 01/15/22 00:23 | 5 |

## Client Sample ID: C-43 Lab Sample ID: 880-10005-43

**Date Collected: 01/07/22 11:24** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:44 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:44 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:44 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:44 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:44 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 22:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *124* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 22:44* | *1* |
| *1,4-Difluorobenzene (Surr)* | *110* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 22:44* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 02:51 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 02:51 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-43 Lab Sample ID: 880-10005-43

**Date Collected: 01/07/22 11:24** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 02:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *108* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 02:51* | *1* |
| *o-Terphenyl (Surr)* | *115* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 02:51* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **222** | | 4.98 | | mg/Kg | | | 01/15/22 00:58 | 1 |

## Client Sample ID: C-44 Lab Sample ID: 880-10005-44

**Date Collected: 01/07/22 11:26** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:05 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:05 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:05 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:05 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:05 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 23:05* | *1* |
| *1,4-Difluorobenzene (Surr)* | *74* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 23:05* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 03:12 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 03:12 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 03:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *91* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 03:12* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 03:12* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **933** | | 4.95 | | mg/Kg | | | 01/15/22 01:10 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-45

**Lab Sample ID: 880-10005-45**
**Matrix: Solid**
**Date Collected: 01/07/22 11:28**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:25 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:25 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:25 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:25 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:25 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *117* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 23:25* | *1* |
| *1,4-Difluorobenzene (Surr)* | *111* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 23:25* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 03:32 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 03:32 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 03:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *87* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 03:32* | *1* |
| *o-Terphenyl (Surr)* | *89* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 03:32* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **991** | | 5.01 | | mg/Kg | | | 01/15/22 01:46 | 1 |

## Client Sample ID: C-46

**Lab Sample ID: 880-10005-46**
**Matrix: Solid**
**Date Collected: 01/07/22 11:30**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:46 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:46 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:46 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:46 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:46 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 23:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *112* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 23:46* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 23:46* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-46
**Date Collected: 01/07/22 11:30**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-46
**Matrix: Solid**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 03:53 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 03:53 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 03:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *91* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 03:53* | *1* |
| *o-Terphenyl (Surr)* | *91* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 03:53* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **319** | | 5.05 | | mg/Kg | | | 01/15/22 01:58 | 1 |

## Client Sample ID: C-47
**Date Collected: 01/07/22 11:32**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-47
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:06 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:06 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:06 | 1 |
| m,p-Xylenes | <0.00397 | U | 0.00397 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:06 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:06 | 1 |
| Xylenes, Total | <0.00397 | U | 0.00397 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *117* | | *70 - 130* | *01/11/22 08:00* | *01/12/22 00:06* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *01/11/22 08:00* | *01/12/22 00:06* | *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 | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 04:14 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 04:14 | 1 |

Eurofins Midland

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-47 Lab Sample ID: 880-10005-47

**Date Collected: 01/07/22 11:32** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/10/22 11:18 | 01/11/22 04:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *93* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 04:14* | *1* |
| *o-Terphenyl (Surr)* | *89* | | *70 - 130* | *01/10/22 11:18* | *01/11/22 04:14* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **4010** | | 24.9 | | mg/Kg | | | 01/15/22 02:10 | 5 |

## Client Sample ID: C-48 Lab Sample ID: 880-10005-48

**Date Collected: 01/07/22 11:34** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:27 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:27 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:27 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:27 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:27 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *70 - 130* | *01/11/22 08:00* | *01/12/22 00:27* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *01/11/22 08:00* | *01/12/22 00:27* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/11/22 13:47 | 01/11/22 23:38 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/11/22 13:47 | 01/11/22 23:38 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/11/22 13:47 | 01/11/22 23:38 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *67* | *S1-* | *70 - 130* | *01/11/22 13:47* | *01/11/22 23:38* | *1* |
| *o-Terphenyl (Surr)* | *69* | *S1-* | *70 - 130* | *01/11/22 13:47* | *01/11/22 23:38* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **776** | | 4.99 | | mg/Kg | | | 01/15/22 02:21 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-49

**Date Collected: 01/07/22 11:36**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-49**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:47 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:47 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:47 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:47 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:47 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 00:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *106* | | *70 - 130* | *01/11/22 08:00* | *01/12/22 00:47* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/11/22 08:00* | *01/12/22 00:47* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/11/22 13:47 | 01/12/22 00:48 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/11/22 13:47 | 01/12/22 00:48 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/11/22 13:47 | 01/12/22 00:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *63* | *S1-* | *70 - 130* | *01/11/22 13:47* | *01/12/22 00:48* | *1* |
| *o-Terphenyl (Surr)* | *67* | *S1-* | *70 - 130* | *01/11/22 13:47* | *01/12/22 00:48* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1310** | | 4.95 | | mg/Kg | | | 01/15/22 02:33 | 1 |

## Client Sample ID: C-50

**Date Collected: 01/07/22 11:38**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-50**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 01:08 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 01:08 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 01:08 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 01:08 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 01:08 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 01:08 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* | *01/11/22 08:00* | *01/12/22 01:08* | *1* |
| *1,4-Difluorobenzene (Surr)* | *77* | | *70 - 130* | *01/11/22 08:00* | *01/12/22 01:08* | *1* |

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# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-50 Lab Sample ID: 880-10005-50

**Date Collected: 01/07/22 11:38** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/11/22 13:47 | 01/12/22 01:13 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/11/22 13:47 | 01/12/22 01:13 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/11/22 13:47 | 01/12/22 01:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *66* | *S1-* | *70 - 130* | *01/11/22 13:47* | *01/12/22 01:13* | *1* |
| *o-Terphenyl (Surr)* | *70* | | *70 - 130* | *01/11/22 13:47* | *01/12/22 01:13* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1050** | | 5.04 | | mg/Kg | | | 01/15/22 02:45 | 1 |

## Client Sample ID: C-51 Lab Sample ID: 880-10005-51

**Date Collected: 01/07/22 11:40** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 02:32 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 02:32 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 02:32 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 02:32 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 02:32 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/11/22 08:00 | 01/12/22 02:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *110* | | *70 - 130* | *01/11/22 08:00* | *01/12/22 02:32* | *1* |
| *1,4-Difluorobenzene (Surr)* | *84* | | *70 - 130* | *01/11/22 08:00* | *01/12/22 02:32* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/13/22 13:36 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/13/22 14:05 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/11/22 13:47 | 01/12/22 01:37 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/11/22 13:47 | 01/12/22 01:37 | 1 |

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# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-51

**Date Collected: 01/07/22 11:40**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-51

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/11/22 13:47 | 01/12/22 01:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *60* | *S1-* | *70 - 130* | *01/11/22 13:47* | *01/12/22 01:37* | *1* |
| *o-Terphenyl (Surr)* | *63* | *S1-* | *70 - 130* | *01/11/22 13:47* | *01/12/22 01:37* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1100** | | 4.96 | | mg/Kg | | | 01/15/22 02:57 | 1 |

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## 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) |
| 880-10005-1 | C-1 | 121 | 83 |
| 880-10005-1 MS | C-1 | 99 | 96 |
| 880-10005-1 MSD | C-1 | 107 | 105 |
| 880-10005-2 | C-2 | 121 | 101 |
| 880-10005-3 | C-3 | 114 | 92 |
| 880-10005-4 | C-4 | 131 S1+ | 77 |
| 880-10005-5 | C-5 | 120 | 82 |
| 880-10005-6 | C-6 | 130 | 107 |
| 880-10005-7 | C-7 | 124 | 74 |
| 880-10005-8 | C-8 | 131 S1+ | 113 |
| 880-10005-9 | C-9 | 140 S1+ | 102 |
| 880-10005-10 | C-10 | 149 S1+ | 121 |
| 880-10005-11 | C-11 | 121 | 102 |
| 880-10005-12 | C-12 | 118 | 96 |
| 880-10005-13 | C-13 | 123 | 99 |
| 880-10005-14 | C-14 | 132 S1+ | 85 |
| 880-10005-15 | C-15 | 121 | 102 |
| 880-10005-16 | C-16 | 124 | 105 |
| 880-10005-17 | C-17 | 121 | 75 |
| 880-10005-18 | C-18 | 118 | 99 |
| 880-10005-19 | C-19 | 131 S1+ | 107 |
| 880-10005-20 | C-20 | 115 | 80 |
| 880-10005-21 | C-21 | 102 | 95 |
| 880-10005-21 MS | C-21 | 111 | 4 S1- |
| 880-10005-21 MSD | C-21 | 125 | 94 |
| 880-10005-22 | C-22 | 118 | 104 |
| 880-10005-23 | C-23 | 97 | 101 |
| 880-10005-24 | C-24 | 106 | 106 |
| 880-10005-25 | C-25 | 120 | 102 |
| 880-10005-26 | C-26 | 113 | 99 |
| 880-10005-27 | C-27 | 107 | 102 |
| 880-10005-28 | C-28 | 94 | 104 |
| 880-10005-29 | C-29 | 99 | 102 |
| 880-10005-30 | C-30 | 104 | 107 |
| 880-10005-31 | C-31 | 100 | 107 |
| 880-10005-32 | C-32 | 98 | 106 |
| 880-10005-33 | C-33 | 105 | 108 |
| 880-10005-34 | C-34 | 100 | 108 |
| 880-10005-35 | C-35 | 103 | 108 |
| 880-10005-36 | C-36 | 103 | 107 |
| 880-10005-37 | C-37 | 104 | 107 |
| 880-10005-38 | C-38 | 101 | 110 |
| 880-10005-39 | C-39 | 102 | 107 |
| 880-10005-40 | C-40 | 104 | 111 |
| 880-10005-41 | C-41 | 116 | 108 |
| 880-10005-41 MS | C-41 | 104 | 102 |
| 880-10005-41 MSD | C-41 | 107 | 89 |
| 880-10005-42 | C-42 | 114 | 102 |
| 880-10005-43 | C-43 | 124 | 110 |

# Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | BFB1 (70-130) | DFBZ1 (70-130) |
| 880-10005-44 | C-44 | 101 | 74 |
| 880-10005-45 | C-45 | 117 | 111 |
| 880-10005-46 | C-46 | 112 | 97 |
| 880-10005-47 | C-47 | 117 | 105 |
| 880-10005-48 | C-48 | 115 | 98 |
| 880-10005-49 | C-49 | 106 | 107 |
| 880-10005-50 | C-50 | 120 | 77 |
| 880-10005-51 | C-51 | 110 | 84 |
| LCS 880-16376/1-A | Lab Control Sample | 100 | 94 |
| LCS 880-16386/1-A | Lab Control Sample | 102 | 101 |
| LCS 880-16392/1-A | Lab Control Sample | 109 | 109 |
| LCSD 880-16376/2-A | Lab Control Sample Dup | 99 | 92 |
| LCSD 880-16386/2-A | Lab Control Sample Dup | 102 | 93 |
| LCSD 880-16392/2-A | Lab Control Sample Dup | 109 | 93 |
| MB 880-16376/5-A | Method Blank | 110 | 103 |
| MB 880-16386/5-A | Method Blank | 107 | 97 |
| MB 880-16392/5-A | Method Blank | 127 | 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) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | 1CO1 (70-130) | OTPH1 (70-130) |
| 880-10005-1 | C-1 | 110 | 109 |
| 880-10005-1 MS | C-1 | 100 | 104 |
| 880-10005-1 MSD | C-1 | 100 | 105 |
| 880-10005-2 | C-2 | 95 | 98 |
| 880-10005-3 | C-3 | 95 | 95 |
| 880-10005-4 | C-4 | 91 | 93 |
| 880-10005-5 | C-5 | 97 | 98 |
| 880-10005-6 | C-6 | 97 | 100 |
| 880-10005-7 | C-7 | 97 | 98 |
| 880-10005-8 | C-8 | 94 | 96 |
| 880-10005-9 | C-9 | 88 | 92 |
| 880-10005-10 | C-10 | 93 | 95 |
| 880-10005-11 | C-11 | 98 | 99 |
| 880-10005-12 | C-12 | 102 | 101 |
| 880-10005-13 | C-13 | 118 | 118 |
| 880-10005-14 | C-14 | 93 | 96 |
| 880-10005-15 | C-15 | 109 | 111 |
| 880-10005-16 | C-16 | 92 | 94 |
| 880-10005-17 | C-17 | 82 | 82 |
| 880-10005-18 | C-18 | 96 | 97 |
| 880-10005-19 | C-19 | 89 | 93 |
| 880-10005-20 | C-20 | 94 | 96 |
| 880-10005-21 | C-21 | 69 S1- | 72 |

# Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## 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) | | | | | | | | | | |
| 880-10005-21 MS | C-21 | 75 | 71 | | | | | | | | | | |
| 880-10005-21 MSD | C-21 | 77 | 74 | | | | | | | | | | |
| 880-10005-22 | C-22 | 74 | 76 | | | | | | | | | | |
| 880-10005-23 | C-23 | 71 | 73 | | | | | | | | | | |
| 880-10005-24 | C-24 | 71 | 74 | | | | | | | | | | |
| 880-10005-25 | C-25 | 71 | 74 | | | | | | | | | | |
| 880-10005-26 | C-26 | 74 | 78 | | | | | | | | | | |
| 880-10005-27 | C-27 | 69 S1- | 71 | | | | | | | | | | |
| 880-10005-28 | C-28 | 72 | 76 | | | | | | | | | | |
| 880-10005-29 | C-29 | 73 | 76 | | | | | | | | | | |
| 880-10005-30 | C-30 | 74 | 77 | | | | | | | | | | |
| 880-10005-31 | C-31 | 77 | 84 | | | | | | | | | | |
| 880-10005-32 | C-32 | 77 | 80 | | | | | | | | | | |
| 880-10005-33 | C-33 | 81 | 82 | | | | | | | | | | |
| 880-10005-34 | C-34 | 70 | 72 | | | | | | | | | | |
| 880-10005-35 | C-35 | 72 | 75 | | | | | | | | | | |
| 880-10005-36 | C-36 | 72 | 79 | | | | | | | | | | |
| 880-10005-37 | C-37 | 79 | 83 | | | | | | | | | | |
| 880-10005-38 | C-38 | 71 | 74 | | | | | | | | | | |
| 880-10005-39 | C-39 | 60 S1- | 62 S1- | | | | | | | | | | |
| 880-10005-40 | C-40 | 71 | 72 | | | | | | | | | | |
| 880-10005-41 | C-41 | 93 | 93 | | | | | | | | | | |
| 880-10005-42 | C-42 | 90 | 93 | | | | | | | | | | |
| 880-10005-43 | C-43 | 108 | 115 | | | | | | | | | | |
| 880-10005-44 | C-44 | 91 | 95 | | | | | | | | | | |
| 880-10005-45 | C-45 | 87 | 89 | | | | | | | | | | |
| 880-10005-46 | C-46 | 91 | 91 | | | | | | | | | | |
| 880-10005-47 | C-47 | 93 | 89 | | | | | | | | | | |
| 880-10005-48 | C-48 | 67 S1- | 69 S1- | | | | | | | | | | |
| 880-10005-48 MS | C-48 | 65 S1- | 61 S1- | | | | | | | | | | |
| 880-10005-48 MSD | C-48 | 67 S1- | 64 S1- | | | | | | | | | | |
| 880-10005-49 | C-49 | 63 S1- | 67 S1- | | | | | | | | | | |
| 880-10005-50 | C-50 | 66 S1- | 70 | | | | | | | | | | |
| 880-10005-51 | C-51 | 60 S1- | 63 S1- | | | | | | | | | | |
| 890-1808-A-1-E MS | Matrix Spike | 75 | 66 S1- | | | | | | | | | | |
| 890-1808-A-1-F MSD | Matrix Spike Duplicate | 77 | 75 | | | | | | | | | | |
| LCS 880-16425/2-A | Lab Control Sample | 106 | 103 | | | | | | | | | | |
| LCS 880-16541/2-A | Lab Control Sample | 94 | 92 | | | | | | | | | | |
| LCSD 880-16425/3-A | Lab Control Sample Dup | 104 | 104 | | | | | | | | | | |
| LCSD 880-16541/3-A | Lab Control Sample Dup | 97 | 93 | | | | | | | | | | |
| MB 880-16425/1-A | Method Blank | 84 | 93 | | | | | | | | | | |
| MB 880-16541/1-A | Method Blank | 71 | 76 | | | | | | | | | | |

**Surrogate Legend**

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

# Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## 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 880-16423/2-A | Lab Control Sample | 93 | 91 | | | | | | | | |
| LCS 880-16424/2-A | Lab Control Sample | 88 | 82 | | | | | | | | |
| LCSD 880-16423/3-A | Lab Control Sample Dup | 102 | 103 | | | | | | | | |
| LCSD 880-16424/3-A | Lab Control Sample Dup | 90 | 85 | | | | | | | | |
| MB 880-16423/1-A | Method Blank | 96 | 99 | | | | | | | | |
| MB 880-16424/1-A | Method Blank | 85 | 86 | | | | | | | | |

**Surrogate Legend**

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-16376/5-A**
**Matrix: Solid**
**Analysis Batch: 16472**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 16376**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 21:41 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 21:41 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 21:41 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 21:41 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 21:41 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/11/22 08:00 | 01/11/22 21:41 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *110* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 21:41* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *01/11/22 08:00* | *01/11/22 21:41* | *1* |

**Lab Sample ID: LCS 880-16376/1-A**
**Matrix: Solid**
**Analysis Batch: 16472**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 16376**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.07594 | | mg/Kg | | 76 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.07560 | | mg/Kg | | 76 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.07767 | | mg/Kg | | 78 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.1587 | | mg/Kg | | 79 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.07884 | | mg/Kg | | 79 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *94* | | *70 - 130* |

**Lab Sample ID: LCSD 880-16376/2-A**
**Matrix: Solid**
**Analysis Batch: 16472**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 16376**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.07590 | | mg/Kg | | 76 | 70 - 130 | 0 | 35 |
| Toluene | | | 0.100 | 0.07686 | | mg/Kg | | 77 | 70 - 130 | 2 | 35 |
| Ethylbenzene | | | 0.100 | 0.07897 | | mg/Kg | | 79 | 70 - 130 | 2 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1605 | | mg/Kg | | 80 | 70 - 130 | 1 | 35 |
| o-Xylene | | | 0.100 | 0.07952 | | mg/Kg | | 80 | 70 - 130 | 1 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* |

**Lab Sample ID: 880-10005-41 MS**
**Matrix: Solid**
**Analysis Batch: 16472**

**Client Sample ID: C-41**
**Prep Type: Total/NA**
**Prep Batch: 16376**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U F1 | 0.0992 | 0.06363 | F1 | mg/Kg | | 64 | 70 - 130 | | |
| Toluene | <0.00200 | U F1 | 0.0992 | 0.06261 | F1 | mg/Kg | | 63 | 70 - 130 | | |

Eurofins Midland

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

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

**Lab Sample ID: 880-10005-41 MS** **Client Sample ID: C-41**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16472** **Prep Batch: 16376**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.00200 | U F1 | 0.0992 | 0.06443 | F1 | mg/Kg | | 65 | 70 - 130 |
| m,p-Xylenes | <0.00399 | U F1 | 0.198 | 0.1315 | F1 | mg/Kg | | 66 | 70 - 130 |
| o-Xylene | <0.00200 | U F1 | 0.0992 | 0.06539 | F1 | mg/Kg | | 66 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* |

**Lab Sample ID: 880-10005-41 MSD** **Client Sample ID: C-41**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16472** **Prep Batch: 16376**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U F1 | 0.100 | 0.05143 | F1 | mg/Kg | | 51 | 70 - 130 | 21 | 35 |
| Toluene | <0.00200 | U F1 | 0.100 | 0.04948 | F1 | mg/Kg | | 49 | 70 - 130 | 23 | 35 |
| Ethylbenzene | <0.00200 | U F1 | 0.100 | 0.05221 | F1 | mg/Kg | | 52 | 70 - 130 | 21 | 35 |
| m,p-Xylenes | <0.00399 | U F1 | 0.200 | 0.1088 | F1 | mg/Kg | | 54 | 70 - 130 | 19 | 35 |
| o-Xylene | <0.00200 | U F1 | 0.100 | 0.05514 | F1 | mg/Kg | | 55 | 70 - 130 | 17 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *107* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *89* | | *70 - 130* |

**Lab Sample ID: MB 880-16386/5-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16472** **Prep Batch: 16386**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | mg/Kg | | 01/10/22 10:10 | 01/11/22 10:49 | 1 |
| Toluene | <0.00200 | U | 0.00200 | mg/Kg | | 01/10/22 10:10 | 01/11/22 10:49 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | mg/Kg | | 01/10/22 10:10 | 01/11/22 10:49 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | mg/Kg | | 01/10/22 10:10 | 01/11/22 10:49 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | mg/Kg | | 01/10/22 10:10 | 01/11/22 10:49 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | mg/Kg | | 01/10/22 10:10 | 01/11/22 10:49 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *107* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 10:49* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *01/10/22 10:10* | *01/11/22 10:49* | *1* |

**Lab Sample ID: LCS 880-16386/1-A** **Client Sample ID: Lab Control Sample**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16472** **Prep Batch: 16386**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.100 | 0.07057 | | mg/Kg | | 71 | 70 - 130 |
| Toluene | 0.100 | 0.07215 | | mg/Kg | | 72 | 70 - 130 |
| Ethylbenzene | 0.100 | 0.07377 | | mg/Kg | | 74 | 70 - 130 |
| m,p-Xylenes | 0.200 | 0.1528 | | mg/Kg | | 76 | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

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

**Lab Sample ID: LCS 880-16386/1-A**
**Matrix: Solid**
**Analysis Batch: 16472**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 16386**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | | | 0.100 | 0.07522 | | mg/Kg | | 75 | 70 - 130 | | |

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

**Lab Sample ID: LCSD 880-16386/2-A**
**Matrix: Solid**
**Analysis Batch: 16472**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 16386**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.07972 | | mg/Kg | | 80 | 70 - 130 | 12 | 35 |
| Toluene | | | 0.100 | 0.07954 | | mg/Kg | | 80 | 70 - 130 | 10 | 35 |
| Ethylbenzene | | | 0.100 | 0.07970 | | mg/Kg | | 80 | 70 - 130 | 8 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1669 | | mg/Kg | | 83 | 70 - 130 | 9 | 35 |
| o-Xylene | | | 0.100 | 0.08389 | | mg/Kg | | 84 | 70 - 130 | 11 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* |

**Lab Sample ID: 880-10005-1 MS**
**Matrix: Solid**
**Analysis Batch: 16472**

**Client Sample ID: C-1**
**Prep Type: Total/NA**
**Prep Batch: 16386**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.100 | 0.07397 | | mg/Kg | | 74 | 70 - 130 |
| Toluene | <0.00201 | U | 0.100 | 0.07227 | | mg/Kg | | 72 | 70 - 130 |
| Ethylbenzene | <0.00201 | U | 0.100 | 0.07356 | | mg/Kg | | 73 | 70 - 130 |
| m,p-Xylenes | <0.00402 | U | 0.201 | 0.1499 | | mg/Kg | | 75 | 70 - 130 |
| o-Xylene | <0.00201 | U | 0.100 | 0.07645 | | mg/Kg | | 76 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* |

**Lab Sample ID: 880-10005-1 MSD**
**Matrix: Solid**
**Analysis Batch: 16472**

**Client Sample ID: C-1**
**Prep Type: Total/NA**
**Prep Batch: 16386**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.100 | 0.07502 | | mg/Kg | | 75 | 70 - 130 | 1 | 35 |
| Toluene | <0.00201 | U | 0.100 | 0.07408 | | mg/Kg | | 74 | 70 - 130 | 2 | 35 |
| Ethylbenzene | <0.00201 | U | 0.100 | 0.07595 | | mg/Kg | | 76 | 70 - 130 | 3 | 35 |
| m,p-Xylenes | <0.00402 | U | 0.200 | 0.1562 | | mg/Kg | | 78 | 70 - 130 | 4 | 35 |
| o-Xylene | <0.00201 | U | 0.100 | 0.07783 | | mg/Kg | | 78 | 70 - 130 | 2 | 35 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-10005-1 MSD**
**Matrix: Solid**
**Analysis Batch: 16472**

**Client Sample ID: C-1**
**Prep Type: Total/NA**
**Prep Batch: 16386**

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 107 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 105 | | 70 - 130 |

**Lab Sample ID: MB 880-16392/5-A**
**Matrix: Solid**
**Analysis Batch: 16475**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 16392**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 16:41 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 16:41 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 16:41 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 16:41 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 16:41 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/10/22 10:13 | 01/11/22 16:41 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 127 | | 70 - 130 | 01/10/22 10:13 | 01/11/22 16:41 | 1 |
| 1,4-Difluorobenzene (Surr) | 90 | | 70 - 130 | 01/10/22 10:13 | 01/11/22 16:41 | 1 |

**Lab Sample ID: LCS 880-16392/1-A**
**Matrix: Solid**
**Analysis Batch: 16475**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 16392**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.07455 | | mg/Kg | | 75 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.07090 | | mg/Kg | | 71 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.07198 | | mg/Kg | | 72 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.1432 | | mg/Kg | | 72 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.07056 | | mg/Kg | | 71 | 70 - 130 | | |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 109 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 109 | | 70 - 130 |

**Lab Sample ID: LCSD 880-16392/2-A**
**Matrix: Solid**
**Analysis Batch: 16475**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 16392**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.07139 | | mg/Kg | | 71 | 70 - 130 | 4 | 35 |
| Toluene | | | 0.100 | 0.07113 | | mg/Kg | | 71 | 70 - 130 | 0 | 35 |
| Ethylbenzene | | | 0.100 | 0.07000 | | mg/Kg | | 70 | 70 - 130 | 3 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1417 | | mg/Kg | | 71 | 70 - 130 | 1 | 35 |
| o-Xylene | | | 0.100 | 0.07115 | | mg/Kg | | 71 | 70 - 130 | 1 | 35 |

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

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

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

**Lab Sample ID: LCSD 880-16392/2-A**
**Matrix: Solid**
**Analysis Batch: 16475**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 16392**

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

**Lab Sample ID: 880-10005-21 MS**
**Matrix: Solid**
**Analysis Batch: 16475**

**Client Sample ID: C-21**
**Prep Type: Total/NA**
**Prep Batch: 16392**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U F1 | 0.100 | <0.00201 | U F1 | mg/Kg | | -0.8 | 70 - 130 |
| Toluene | <0.00199 | U F1 | 0.100 | <0.00201 | U F1 | mg/Kg | | 1 | 70 - 130 |
| Ethylbenzene | <0.00199 | U F1 | 0.100 | <0.00201 | U F1 | mg/Kg | | 0.6 | 70 - 130 |
| m,p-Xylenes | <0.00398 | U F1 | 0.201 | <0.00402 | U F1 | mg/Kg | | 0.5 | 70 - 130 |
| o-Xylene | <0.00199 | U F1 | 0.100 | <0.00201 | U F1 | mg/Kg | | 0.5 | 70 - 130 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 111 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 4 | S1- | 70 - 130 |

**Lab Sample ID: 880-10005-21 MSD**
**Matrix: Solid**
**Analysis Batch: 16475**

**Client Sample ID: C-21**
**Prep Type: Total/NA**
**Prep Batch: 16392**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U F1 | 0.0990 | <0.00198 | U F1 | mg/Kg | | 0 | 70 - 130 | NC | 35 |
| Toluene | <0.00199 | U F1 | 0.0990 | <0.00198 | U F1 | mg/Kg | | 0 | 70 - 130 | NC | 35 |
| Ethylbenzene | <0.00199 | U F1 | 0.0990 | <0.00198 | U F1 | mg/Kg | | 0 | 70 - 130 | NC | 35 |
| m,p-Xylenes | <0.00398 | U F1 | 0.198 | <0.00396 | U F1 | mg/Kg | | 0 | 70 - 130 | NC | 35 |
| o-Xylene | <0.00199 | U F1 | 0.0990 | <0.00198 | U F1 | mg/Kg | | 0 | 70 - 130 | NC | 35 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 125 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 94 | | 70 - 130 |

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

**Lab Sample ID: MB 880-16423/1-A**
**Matrix: Solid**
**Analysis Batch: 16478**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 16423**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | mg/Kg | | 01/10/22 11:10 | 01/11/22 13:35 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | mg/Kg | | 01/10/22 11:10 | 01/11/22 13:35 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | mg/Kg | | 01/10/22 11:10 | 01/11/22 13:35 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane (Surr) | 96 | | 70 - 130 | 01/10/22 11:10 | 01/11/22 13:35 | 1 |
| o-Terphenyl (Surr) | 99 | | 70 - 130 | 01/10/22 11:10 | 01/11/22 13:35 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

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

**Lab Sample ID: LCS 880-16423/2-A**
**Matrix: Solid**
**Analysis Batch: 16478**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 16423**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 826.4 | | mg/Kg | | 83 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 997.8 | | mg/Kg | | 100 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *93* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *91* | | *70 - 130* |

**Lab Sample ID: LCSD 880-16423/3-A**
**Matrix: Solid**
**Analysis Batch: 16478**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 16423**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 856.0 | | mg/Kg | | 86 | 70 - 130 | 4 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 1006 | | mg/Kg | | 101 | 70 - 130 | 1 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *102* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *103* | | *70 - 130* |

**Lab Sample ID: 880-10005-1 MS**
**Matrix: Solid**
**Analysis Batch: 16478**

**Client Sample ID: C-1**
**Prep Type: Total/NA**
**Prep Batch: 16423**

| 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 | 996 | 1045 | | mg/Kg | | 103 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 996 | 984.1 | | mg/Kg | | 99 | 70 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *100* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *104* | | *70 - 130* |

**Lab Sample ID: 880-10005-1 MSD**
**Matrix: Solid**
**Analysis Batch: 16478**

**Client Sample ID: C-1**
**Prep Type: Total/NA**
**Prep Batch: 16423**

| 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 | 1053 | | mg/Kg | | 104 | 70 - 130 | 1 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 999 | 996.8 | | mg/Kg | | 100 | 70 - 130 | 1 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *100* | | *70 - 130* |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-10005-1 MSD**
**Matrix: Solid**
**Analysis Batch: 16478**

**Client Sample ID: C-1**
**Prep Type: Total/NA**
**Prep Batch: 16423**

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| o-Terphenyl (Surr) | 105 | | 70 - 130 |

**Lab Sample ID: MB 880-16424/1-A**
**Matrix: Solid**
**Analysis Batch: 16336**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 16424**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/10/22 20:35 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/10/22 20:35 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:18 | 01/10/22 20:35 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane (Surr) | 85 | | 70 - 130 | 01/10/22 11:18 | 01/10/22 20:35 | 1 |
| o-Terphenyl (Surr) | 86 | | 70 - 130 | 01/10/22 11:18 | 01/10/22 20:35 | 1 |

**Lab Sample ID: LCS 880-16424/2-A**
**Matrix: Solid**
**Analysis Batch: 16336**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 16424**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 826.7 | | mg/Kg | | 83 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 915.4 | | mg/Kg | | 92 | 70 - 130 | | |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 88 | | 70 - 130 |
| o-Terphenyl (Surr) | 82 | | 70 - 130 |

**Lab Sample ID: LCSD 880-16424/3-A**
**Matrix: Solid**
**Analysis Batch: 16336**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 16424**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 841.5 | | mg/Kg | | 84 | 70 - 130 | 2 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 916.2 | | mg/Kg | | 92 | 70 - 130 | 0 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 90 | | 70 - 130 |
| o-Terphenyl (Surr) | 85 | | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

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

**Lab Sample ID: 890-1808-A-1-E MS** — **Client Sample ID: Matrix Spike**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 16336** — **Prep Batch: 16424**

| 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 | 996 | 977.5 | | mg/Kg | | 95 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 996 | 851.8 | | mg/Kg | | 86 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *75* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *66* | *S1-* | *70 - 130* |

**Lab Sample ID: 890-1808-A-1-F MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 16336** — **Prep Batch: 16424**

| 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 | 1093 | | mg/Kg | | 107 | 70 - 130 | 11 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 999 | 862.8 | | mg/Kg | | 86 | 70 - 130 | 1 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *77* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *75* | | *70 - 130* |

**Lab Sample ID: MB 880-16425/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 16483** — **Prep Batch: 16425**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 10:41 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 10:41 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/10/22 11:50 | 01/11/22 10:41 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *84* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 10:41* | *1* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* | *01/10/22 11:50* | *01/11/22 10:41* | *1* |

**Lab Sample ID: LCS 880-16425/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 16483** — **Prep Batch: 16425**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 913.4 | | mg/Kg | | 91 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 969.4 | | mg/Kg | | 97 | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

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

**Lab Sample ID: LCS 880-16425/2-A**
**Matrix: Solid**
**Analysis Batch: 16483**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 16425**

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 106 | | 70 - 130 |
| o-Terphenyl (Surr) | 103 | | 70 - 130 |

**Lab Sample ID: LCSD 880-16425/3-A**
**Matrix: Solid**
**Analysis Batch: 16483**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 16425**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 921.7 | | mg/Kg | | 92 | 70 - 130 | 1 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 1055 | | mg/Kg | | 106 | 70 - 130 | 8 | 20 |

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

**Lab Sample ID: 880-10005-21 MS**
**Matrix: Solid**
**Analysis Batch: 16483**

**Client Sample ID: C-21**
**Prep Type: Total/NA**
**Prep Batch: 16425**

| 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 | 996 | 850.0 | | mg/Kg | | 85 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 996 | 815.4 | | mg/Kg | | 77 | 70 - 130 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 75 | | 70 - 130 |
| o-Terphenyl (Surr) | 71 | | 70 - 130 |

**Lab Sample ID: 880-10005-21 MSD**
**Matrix: Solid**
**Analysis Batch: 16483**

**Client Sample ID: C-21**
**Prep Type: Total/NA**
**Prep Batch: 16425**

| 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 | 869.4 | | mg/Kg | | 87 | 70 - 130 | 2 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 999 | 861.9 | | mg/Kg | | 82 | 70 - 130 | 6 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 77 | | 70 - 130 |
| o-Terphenyl (Surr) | 74 | | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-16541/1-A**
**Matrix: Solid**
**Analysis Batch: 16483**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 16541**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/11/22 13:47 | 01/11/22 22:28 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/11/22 13:47 | 01/11/22 22:28 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/11/22 13:47 | 01/11/22 22:28 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *71* | | *70 - 130* | *01/11/22 13:47* | *01/11/22 22:28* | *1* |
| *o-Terphenyl (Surr)* | *76* | | *70 - 130* | *01/11/22 13:47* | *01/11/22 22:28* | *1* |

**Lab Sample ID: LCS 880-16541/2-A**
**Matrix: Solid**
**Analysis Batch: 16483**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 16541**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 782.0 | | mg/Kg | | 78 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 894.0 | | mg/Kg | | 89 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *94* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *92* | | *70 - 130* |

**Lab Sample ID: LCSD 880-16541/3-A**
**Matrix: Solid**
**Analysis Batch: 16483**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 16541**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 840.1 | | mg/Kg | | 84 | 70 - 130 | 7 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 979.9 | | mg/Kg | | 98 | 70 - 130 | 9 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *97* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* |

**Lab Sample ID: 880-10005-48 MS**
**Matrix: Solid**
**Analysis Batch: 16483**

**Client Sample ID: C-48**
**Prep Type: Total/NA**
**Prep Batch: 16541**

| 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 | 996 | 728.1 | | mg/Kg | | 71 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 996 | 786.7 | | mg/Kg | | 79 | 70 - 130 | | |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-10005-48 MS**
**Matrix: Solid**
**Analysis Batch: 16483**

**Client Sample ID: C-48**
**Prep Type: Total/NA**
**Prep Batch: 16541**

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 65 | S1- | 70 - 130 |
| o-Terphenyl (Surr) | 61 | S1- | 70 - 130 |

**Lab Sample ID: 880-10005-48 MSD**
**Matrix: Solid**
**Analysis Batch: 16483**

**Client Sample ID: C-48**
**Prep Type: Total/NA**
**Prep Batch: 16541**

| 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 | 744.4 | | mg/Kg | | 73 | 70 - 130 | 2 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 999 | 826.5 | | mg/Kg | | 83 | 70 - 130 | 5 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 67 | S1- | 70 - 130 |
| o-Terphenyl (Surr) | 64 | S1- | 70 - 130 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-16445/1-A**
**Matrix: Solid**
**Analysis Batch: 16561**

**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 | | | 01/14/22 09:55 | 1 |

**Lab Sample ID: LCS 880-16445/2-A**
**Matrix: Solid**
**Analysis Batch: 16561**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 271.3 | | mg/Kg | | 109 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-16445/3-A**
**Matrix: Solid**
**Analysis Batch: 16561**

**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 | 274.9 | | mg/Kg | | 110 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 880-10005-22 MS**
**Matrix: Solid**
**Analysis Batch: 16561**

**Client Sample ID: C-22**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U F1 | 250 | 434.1 | F1 | mg/Kg | | 172 | 90 - 110 | | |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 880-10005-22 MSD** — **Client Sample ID: C-22**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16561**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U F1 | 250 | 418.1 | F1 | mg/Kg | | 166 | 90 - 110 | 4 | 20 |

**Lab Sample ID: MB 880-16446/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16870**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 01/15/22 17:17 | 1 |

**Lab Sample ID: LCS 880-16446/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16870**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 270.3 | | mg/Kg | | 108 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-16446/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16870**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 274.0 | | mg/Kg | | 110 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 880-10005-10 MS** — **Client Sample ID: C-10**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16870**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1950 | F1 | 1240 | 3378 | F1 | mg/Kg | | 115 | 90 - 110 | | |

**Lab Sample ID: 880-10005-10 MSD** — **Client Sample ID: C-10**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16870**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1950 | F1 | 1240 | 3415 | F1 | mg/Kg | | 118 | 90 - 110 | 1 | 20 |

**Lab Sample ID: MB 880-16447/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16871**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 01/14/22 21:02 | 1 |

**Lab Sample ID: LCS 880-16447/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16871**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 258.1 | | mg/Kg | | 103 | 90 - 110 | | |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: LCSD 880-16447/3-A**
**Matrix: Solid**
**Analysis Batch: 16871**

**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 | 258.5 | | mg/Kg | | 103 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 880-10005-32 MS**
**Matrix: Solid**
**Analysis Batch: 16871**

**Client Sample ID: C-32**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2710 | | 1240 | 4006 | | mg/Kg | | 105 | 90 - 110 | | |

**Lab Sample ID: 880-10005-32 MSD**
**Matrix: Solid**
**Analysis Batch: 16871**

**Client Sample ID: C-32**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2710 | | 1240 | 3944 | | mg/Kg | | 100 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 880-10005-42 MS**
**Matrix: Solid**
**Analysis Batch: 16871**

**Client Sample ID: C-42**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1770 | | 1250 | 3062 | | mg/Kg | | 103 | 90 - 110 | | |

**Lab Sample ID: 880-10005-42 MSD**
**Matrix: Solid**
**Analysis Batch: 16871**

**Client Sample ID: C-42**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1770 | | 1250 | 3033 | | mg/Kg | | 101 | 90 - 110 | 1 | 20 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## GC VOA

### Prep Batch: 16376

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-41 | C-41 | Total/NA | Solid | 5035 | |
| 880-10005-42 | C-42 | Total/NA | Solid | 5035 | |
| 880-10005-43 | C-43 | Total/NA | Solid | 5035 | |
| 880-10005-44 | C-44 | Total/NA | Solid | 5035 | |
| 880-10005-45 | C-45 | Total/NA | Solid | 5035 | |
| 880-10005-46 | C-46 | Total/NA | Solid | 5035 | |
| 880-10005-47 | C-47 | Total/NA | Solid | 5035 | |
| 880-10005-48 | C-48 | Total/NA | Solid | 5035 | |
| 880-10005-49 | C-49 | Total/NA | Solid | 5035 | |
| 880-10005-50 | C-50 | Total/NA | Solid | 5035 | |
| 880-10005-51 | C-51 | Total/NA | Solid | 5035 | |
| MB 880-16376/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-16376/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-16376/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-10005-41 MS | C-41 | Total/NA | Solid | 5035 | |
| 880-10005-41 MSD | C-41 | Total/NA | Solid | 5035 | |

### Prep Batch: 16386

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-1 | C-1 | Total/NA | Solid | 5035 | |
| 880-10005-2 | C-2 | Total/NA | Solid | 5035 | |
| 880-10005-3 | C-3 | Total/NA | Solid | 5035 | |
| 880-10005-4 | C-4 | Total/NA | Solid | 5035 | |
| 880-10005-5 | C-5 | Total/NA | Solid | 5035 | |
| 880-10005-6 | C-6 | Total/NA | Solid | 5035 | |
| 880-10005-7 | C-7 | Total/NA | Solid | 5035 | |
| 880-10005-8 | C-8 | Total/NA | Solid | 5035 | |
| 880-10005-9 | C-9 | Total/NA | Solid | 5035 | |
| 880-10005-10 | C-10 | Total/NA | Solid | 5035 | |
| 880-10005-11 | C-11 | Total/NA | Solid | 5035 | |
| 880-10005-12 | C-12 | Total/NA | Solid | 5035 | |
| 880-10005-13 | C-13 | Total/NA | Solid | 5035 | |
| 880-10005-14 | C-14 | Total/NA | Solid | 5035 | |
| 880-10005-15 | C-15 | Total/NA | Solid | 5035 | |
| 880-10005-16 | C-16 | Total/NA | Solid | 5035 | |
| 880-10005-17 | C-17 | Total/NA | Solid | 5035 | |
| 880-10005-18 | C-18 | Total/NA | Solid | 5035 | |
| 880-10005-19 | C-19 | Total/NA | Solid | 5035 | |
| 880-10005-20 | C-20 | Total/NA | Solid | 5035 | |
| MB 880-16386/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-16386/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-16386/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-10005-1 MS | C-1 | Total/NA | Solid | 5035 | |
| 880-10005-1 MSD | C-1 | Total/NA | Solid | 5035 | |

### Prep Batch: 16392

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-21 | C-21 | Total/NA | Solid | 5035 | |
| 880-10005-22 | C-22 | Total/NA | Solid | 5035 | |
| 880-10005-23 | C-23 | Total/NA | Solid | 5035 | |
| 880-10005-24 | C-24 | Total/NA | Solid | 5035 | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## GC VOA (Continued)

### Prep Batch: 16392 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-25 | C-25 | Total/NA | Solid | 5035 | |
| 880-10005-26 | C-26 | Total/NA | Solid | 5035 | |
| 880-10005-27 | C-27 | Total/NA | Solid | 5035 | |
| 880-10005-28 | C-28 | Total/NA | Solid | 5035 | |
| 880-10005-29 | C-29 | Total/NA | Solid | 5035 | |
| 880-10005-30 | C-30 | Total/NA | Solid | 5035 | |
| 880-10005-31 | C-31 | Total/NA | Solid | 5035 | |
| 880-10005-32 | C-32 | Total/NA | Solid | 5035 | |
| 880-10005-33 | C-33 | Total/NA | Solid | 5035 | |
| 880-10005-34 | C-34 | Total/NA | Solid | 5035 | |
| 880-10005-35 | C-35 | Total/NA | Solid | 5035 | |
| 880-10005-36 | C-36 | Total/NA | Solid | 5035 | |
| 880-10005-37 | C-37 | Total/NA | Solid | 5035 | |
| 880-10005-38 | C-38 | Total/NA | Solid | 5035 | |
| 880-10005-39 | C-39 | Total/NA | Solid | 5035 | |
| 880-10005-40 | C-40 | Total/NA | Solid | 5035 | |
| MB 880-16392/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-16392/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-16392/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-10005-21 MS | C-21 | Total/NA | Solid | 5035 | |
| 880-10005-21 MSD | C-21 | Total/NA | Solid | 5035 | |

### Analysis Batch: 16472

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-1 | C-1 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-2 | C-2 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-3 | C-3 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-4 | C-4 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-5 | C-5 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-6 | C-6 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-7 | C-7 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-8 | C-8 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-9 | C-9 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-10 | C-10 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-11 | C-11 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-12 | C-12 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-13 | C-13 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-14 | C-14 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-15 | C-15 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-16 | C-16 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-17 | C-17 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-18 | C-18 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-19 | C-19 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-20 | C-20 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-41 | C-41 | Total/NA | Solid | 8021B | 16376 |
| 880-10005-42 | C-42 | Total/NA | Solid | 8021B | 16376 |
| 880-10005-43 | C-43 | Total/NA | Solid | 8021B | 16376 |
| 880-10005-44 | C-44 | Total/NA | Solid | 8021B | 16376 |
| 880-10005-45 | C-45 | Total/NA | Solid | 8021B | 16376 |
| 880-10005-46 | C-46 | Total/NA | Solid | 8021B | 16376 |
| 880-10005-47 | C-47 | Total/NA | Solid | 8021B | 16376 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## GC VOA (Continued)

### Analysis Batch: 16472 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-48 | C-48 | Total/NA | Solid | 8021B | 16376 |
| 880-10005-49 | C-49 | Total/NA | Solid | 8021B | 16376 |
| 880-10005-50 | C-50 | Total/NA | Solid | 8021B | 16376 |
| 880-10005-51 | C-51 | Total/NA | Solid | 8021B | 16376 |
| MB 880-16376/5-A | Method Blank | Total/NA | Solid | 8021B | 16376 |
| MB 880-16386/5-A | Method Blank | Total/NA | Solid | 8021B | 16386 |
| LCS 880-16376/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 16376 |
| LCS 880-16386/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 16386 |
| LCSD 880-16376/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 16376 |
| LCSD 880-16386/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 16386 |
| 880-10005-1 MS | C-1 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-1 MSD | C-1 | Total/NA | Solid | 8021B | 16386 |
| 880-10005-41 MS | C-41 | Total/NA | Solid | 8021B | 16376 |
| 880-10005-41 MSD | C-41 | Total/NA | Solid | 8021B | 16376 |

### Analysis Batch: 16475

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-21 | C-21 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-22 | C-22 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-23 | C-23 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-24 | C-24 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-25 | C-25 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-26 | C-26 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-27 | C-27 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-28 | C-28 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-29 | C-29 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-30 | C-30 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-31 | C-31 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-32 | C-32 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-33 | C-33 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-34 | C-34 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-35 | C-35 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-36 | C-36 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-37 | C-37 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-38 | C-38 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-39 | C-39 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-40 | C-40 | Total/NA | Solid | 8021B | 16392 |
| MB 880-16392/5-A | Method Blank | Total/NA | Solid | 8021B | 16392 |
| LCS 880-16392/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 16392 |
| LCSD 880-16392/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 16392 |
| 880-10005-21 MS | C-21 | Total/NA | Solid | 8021B | 16392 |
| 880-10005-21 MSD | C-21 | Total/NA | Solid | 8021B | 16392 |

### Analysis Batch: 16594

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-21 | C-21 | Total/NA | Solid | Total BTEX | |
| 880-10005-22 | C-22 | Total/NA | Solid | Total BTEX | |
| 880-10005-23 | C-23 | Total/NA | Solid | Total BTEX | |
| 880-10005-24 | C-24 | Total/NA | Solid | Total BTEX | |
| 880-10005-25 | C-25 | Total/NA | Solid | Total BTEX | |
| 880-10005-26 | C-26 | Total/NA | Solid | Total BTEX | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## GC VOA (Continued)

### Analysis Batch: 16594 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-27 | C-27 | Total/NA | Solid | Total BTEX | |
| 880-10005-28 | C-28 | Total/NA | Solid | Total BTEX | |
| 880-10005-29 | C-29 | Total/NA | Solid | Total BTEX | |
| 880-10005-30 | C-30 | Total/NA | Solid | Total BTEX | |
| 880-10005-31 | C-31 | Total/NA | Solid | Total BTEX | |
| 880-10005-32 | C-32 | Total/NA | Solid | Total BTEX | |
| 880-10005-33 | C-33 | Total/NA | Solid | Total BTEX | |
| 880-10005-34 | C-34 | Total/NA | Solid | Total BTEX | |
| 880-10005-35 | C-35 | Total/NA | Solid | Total BTEX | |
| 880-10005-36 | C-36 | Total/NA | Solid | Total BTEX | |
| 880-10005-37 | C-37 | Total/NA | Solid | Total BTEX | |
| 880-10005-38 | C-38 | Total/NA | Solid | Total BTEX | |
| 880-10005-39 | C-39 | Total/NA | Solid | Total BTEX | |
| 880-10005-40 | C-40 | Total/NA | Solid | Total BTEX | |

### Analysis Batch: 16785

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-1 | C-1 | Total/NA | Solid | Total BTEX | |
| 880-10005-2 | C-2 | Total/NA | Solid | Total BTEX | |
| 880-10005-3 | C-3 | Total/NA | Solid | Total BTEX | |
| 880-10005-4 | C-4 | Total/NA | Solid | Total BTEX | |
| 880-10005-5 | C-5 | Total/NA | Solid | Total BTEX | |
| 880-10005-6 | C-6 | Total/NA | Solid | Total BTEX | |
| 880-10005-7 | C-7 | Total/NA | Solid | Total BTEX | |
| 880-10005-8 | C-8 | Total/NA | Solid | Total BTEX | |
| 880-10005-9 | C-9 | Total/NA | Solid | Total BTEX | |
| 880-10005-10 | C-10 | Total/NA | Solid | Total BTEX | |
| 880-10005-11 | C-11 | Total/NA | Solid | Total BTEX | |
| 880-10005-12 | C-12 | Total/NA | Solid | Total BTEX | |
| 880-10005-13 | C-13 | Total/NA | Solid | Total BTEX | |
| 880-10005-14 | C-14 | Total/NA | Solid | Total BTEX | |
| 880-10005-15 | C-15 | Total/NA | Solid | Total BTEX | |
| 880-10005-16 | C-16 | Total/NA | Solid | Total BTEX | |
| 880-10005-17 | C-17 | Total/NA | Solid | Total BTEX | |
| 880-10005-18 | C-18 | Total/NA | Solid | Total BTEX | |
| 880-10005-19 | C-19 | Total/NA | Solid | Total BTEX | |
| 880-10005-20 | C-20 | Total/NA | Solid | Total BTEX | |
| 880-10005-41 | C-41 | Total/NA | Solid | Total BTEX | |
| 880-10005-42 | C-42 | Total/NA | Solid | Total BTEX | |
| 880-10005-43 | C-43 | Total/NA | Solid | Total BTEX | |
| 880-10005-44 | C-44 | Total/NA | Solid | Total BTEX | |
| 880-10005-45 | C-45 | Total/NA | Solid | Total BTEX | |
| 880-10005-46 | C-46 | Total/NA | Solid | Total BTEX | |
| 880-10005-47 | C-47 | Total/NA | Solid | Total BTEX | |
| 880-10005-48 | C-48 | Total/NA | Solid | Total BTEX | |
| 880-10005-49 | C-49 | Total/NA | Solid | Total BTEX | |
| 880-10005-50 | C-50 | Total/NA | Solid | Total BTEX | |
| 880-10005-51 | C-51 | Total/NA | Solid | Total BTEX | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## GC Semi VOA

### Analysis Batch: 16336

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-41 | C-41 | Total/NA | Solid | 8015B NM | 16424 |
| 880-10005-42 | C-42 | Total/NA | Solid | 8015B NM | 16424 |
| 880-10005-43 | C-43 | Total/NA | Solid | 8015B NM | 16424 |
| 880-10005-44 | C-44 | Total/NA | Solid | 8015B NM | 16424 |
| 880-10005-45 | C-45 | Total/NA | Solid | 8015B NM | 16424 |
| 880-10005-46 | C-46 | Total/NA | Solid | 8015B NM | 16424 |
| 880-10005-47 | C-47 | Total/NA | Solid | 8015B NM | 16424 |
| MB 880-16424/1-A | Method Blank | Total/NA | Solid | 8015B NM | 16424 |
| LCS 880-16424/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 16424 |
| LCSD 880-16424/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 16424 |
| 890-1808-A-1-E MS | Matrix Spike | Total/NA | Solid | 8015B NM | 16424 |
| 890-1808-A-1-F MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015B NM | 16424 |

### Prep Batch: 16423

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-1 | C-1 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-2 | C-2 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-3 | C-3 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-4 | C-4 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-5 | C-5 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-6 | C-6 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-7 | C-7 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-8 | C-8 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-9 | C-9 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-10 | C-10 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-11 | C-11 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-12 | C-12 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-13 | C-13 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-14 | C-14 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-15 | C-15 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-16 | C-16 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-17 | C-17 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-18 | C-18 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-19 | C-19 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-20 | C-20 | Total/NA | Solid | 8015NM Prep | |
| MB 880-16423/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-16423/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-16423/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-10005-1 MS | C-1 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-1 MSD | C-1 | Total/NA | Solid | 8015NM Prep | |

### Prep Batch: 16424

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-41 | C-41 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-42 | C-42 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-43 | C-43 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-44 | C-44 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-45 | C-45 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-46 | C-46 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-47 | C-47 | Total/NA | Solid | 8015NM Prep | |
| MB 880-16424/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## GC Semi VOA (Continued)

### Prep Batch: 16424 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 880-16424/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-16424/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 890-1808-A-1-E MS | Matrix Spike | Total/NA | Solid | 8015NM Prep | |
| 890-1808-A-1-F MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015NM Prep | |

### Prep Batch: 16425

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-21 | C-21 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-22 | C-22 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-23 | C-23 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-24 | C-24 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-25 | C-25 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-26 | C-26 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-27 | C-27 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-28 | C-28 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-29 | C-29 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-30 | C-30 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-31 | C-31 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-32 | C-32 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-33 | C-33 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-34 | C-34 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-35 | C-35 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-36 | C-36 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-37 | C-37 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-38 | C-38 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-39 | C-39 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-40 | C-40 | Total/NA | Solid | 8015NM Prep | |
| MB 880-16425/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-16425/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-16425/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-10005-21 MS | C-21 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-21 MSD | C-21 | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 16478

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-1 | C-1 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-2 | C-2 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-3 | C-3 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-4 | C-4 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-5 | C-5 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-6 | C-6 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-7 | C-7 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-8 | C-8 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-9 | C-9 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-10 | C-10 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-11 | C-11 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-12 | C-12 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-13 | C-13 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-14 | C-14 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-15 | C-15 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-16 | C-16 | Total/NA | Solid | 8015B NM | 16423 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## GC Semi VOA (Continued)

### Analysis Batch: 16478 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-17 | C-17 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-18 | C-18 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-19 | C-19 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-20 | C-20 | Total/NA | Solid | 8015B NM | 16423 |
| MB 880-16423/1-A | Method Blank | Total/NA | Solid | 8015B NM | 16423 |
| LCS 880-16423/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 16423 |
| LCSD 880-16423/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-1 MS | C-1 | Total/NA | Solid | 8015B NM | 16423 |
| 880-10005-1 MSD | C-1 | Total/NA | Solid | 8015B NM | 16423 |

### Analysis Batch: 16483

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-21 | C-21 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-22 | C-22 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-23 | C-23 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-24 | C-24 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-25 | C-25 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-26 | C-26 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-27 | C-27 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-28 | C-28 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-29 | C-29 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-30 | C-30 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-31 | C-31 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-32 | C-32 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-33 | C-33 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-34 | C-34 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-35 | C-35 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-36 | C-36 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-37 | C-37 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-38 | C-38 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-39 | C-39 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-40 | C-40 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-48 | C-48 | Total/NA | Solid | 8015B NM | 16541 |
| 880-10005-49 | C-49 | Total/NA | Solid | 8015B NM | 16541 |
| 880-10005-50 | C-50 | Total/NA | Solid | 8015B NM | 16541 |
| 880-10005-51 | C-51 | Total/NA | Solid | 8015B NM | 16541 |
| MB 880-16425/1-A | Method Blank | Total/NA | Solid | 8015B NM | 16425 |
| MB 880-16541/1-A | Method Blank | Total/NA | Solid | 8015B NM | 16541 |
| LCS 880-16425/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 16425 |
| LCS 880-16541/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 16541 |
| LCSD 880-16425/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 16425 |
| LCSD 880-16541/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 16541 |
| 880-10005-21 MS | C-21 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-21 MSD | C-21 | Total/NA | Solid | 8015B NM | 16425 |
| 880-10005-48 MS | C-48 | Total/NA | Solid | 8015B NM | 16541 |
| 880-10005-48 MSD | C-48 | Total/NA | Solid | 8015B NM | 16541 |

### Prep Batch: 16541

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-48 | C-48 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-49 | C-49 | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## GC Semi VOA (Continued)

### Prep Batch: 16541 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-50 | C-50 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-51 | C-51 | Total/NA | Solid | 8015NM Prep | |
| MB 880-16541/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-16541/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-16541/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-10005-48 MS | C-48 | Total/NA | Solid | 8015NM Prep | |
| 880-10005-48 MSD | C-48 | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 16791

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-1 | C-1 | Total/NA | Solid | 8015 NM | |
| 880-10005-2 | C-2 | Total/NA | Solid | 8015 NM | |
| 880-10005-3 | C-3 | Total/NA | Solid | 8015 NM | |
| 880-10005-4 | C-4 | Total/NA | Solid | 8015 NM | |
| 880-10005-5 | C-5 | Total/NA | Solid | 8015 NM | |
| 880-10005-6 | C-6 | Total/NA | Solid | 8015 NM | |
| 880-10005-7 | C-7 | Total/NA | Solid | 8015 NM | |
| 880-10005-8 | C-8 | Total/NA | Solid | 8015 NM | |
| 880-10005-9 | C-9 | Total/NA | Solid | 8015 NM | |
| 880-10005-10 | C-10 | Total/NA | Solid | 8015 NM | |
| 880-10005-11 | C-11 | Total/NA | Solid | 8015 NM | |
| 880-10005-12 | C-12 | Total/NA | Solid | 8015 NM | |
| 880-10005-13 | C-13 | Total/NA | Solid | 8015 NM | |
| 880-10005-14 | C-14 | Total/NA | Solid | 8015 NM | |
| 880-10005-15 | C-15 | Total/NA | Solid | 8015 NM | |
| 880-10005-16 | C-16 | Total/NA | Solid | 8015 NM | |
| 880-10005-17 | C-17 | Total/NA | Solid | 8015 NM | |
| 880-10005-18 | C-18 | Total/NA | Solid | 8015 NM | |
| 880-10005-19 | C-19 | Total/NA | Solid | 8015 NM | |
| 880-10005-20 | C-20 | Total/NA | Solid | 8015 NM | |
| 880-10005-21 | C-21 | Total/NA | Solid | 8015 NM | |
| 880-10005-22 | C-22 | Total/NA | Solid | 8015 NM | |
| 880-10005-23 | C-23 | Total/NA | Solid | 8015 NM | |
| 880-10005-24 | C-24 | Total/NA | Solid | 8015 NM | |
| 880-10005-25 | C-25 | Total/NA | Solid | 8015 NM | |
| 880-10005-26 | C-26 | Total/NA | Solid | 8015 NM | |
| 880-10005-27 | C-27 | Total/NA | Solid | 8015 NM | |
| 880-10005-28 | C-28 | Total/NA | Solid | 8015 NM | |
| 880-10005-29 | C-29 | Total/NA | Solid | 8015 NM | |
| 880-10005-30 | C-30 | Total/NA | Solid | 8015 NM | |
| 880-10005-31 | C-31 | Total/NA | Solid | 8015 NM | |
| 880-10005-32 | C-32 | Total/NA | Solid | 8015 NM | |
| 880-10005-33 | C-33 | Total/NA | Solid | 8015 NM | |
| 880-10005-34 | C-34 | Total/NA | Solid | 8015 NM | |
| 880-10005-35 | C-35 | Total/NA | Solid | 8015 NM | |
| 880-10005-36 | C-36 | Total/NA | Solid | 8015 NM | |
| 880-10005-37 | C-37 | Total/NA | Solid | 8015 NM | |
| 880-10005-38 | C-38 | Total/NA | Solid | 8015 NM | |
| 880-10005-39 | C-39 | Total/NA | Solid | 8015 NM | |
| 880-10005-40 | C-40 | Total/NA | Solid | 8015 NM | |
| 880-10005-41 | C-41 | Total/NA | Solid | 8015 NM | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## GC Semi VOA (Continued)

### Analysis Batch: 16791 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-42 | C-42 | Total/NA | Solid | 8015 NM | |
| 880-10005-43 | C-43 | Total/NA | Solid | 8015 NM | |
| 880-10005-44 | C-44 | Total/NA | Solid | 8015 NM | |
| 880-10005-45 | C-45 | Total/NA | Solid | 8015 NM | |
| 880-10005-46 | C-46 | Total/NA | Solid | 8015 NM | |
| 880-10005-47 | C-47 | Total/NA | Solid | 8015 NM | |
| 880-10005-48 | C-48 | Total/NA | Solid | 8015 NM | |
| 880-10005-49 | C-49 | Total/NA | Solid | 8015 NM | |
| 880-10005-50 | C-50 | Total/NA | Solid | 8015 NM | |
| 880-10005-51 | C-51 | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 16445

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-20 | C-20 | Soluble | Solid | DI Leach | |
| 880-10005-21 | C-21 | Soluble | Solid | DI Leach | |
| 880-10005-22 | C-22 | Soluble | Solid | DI Leach | |
| 880-10005-23 | C-23 | Soluble | Solid | DI Leach | |
| 880-10005-24 | C-24 | Soluble | Solid | DI Leach | |
| 880-10005-25 | C-25 | Soluble | Solid | DI Leach | |
| 880-10005-26 | C-26 | Soluble | Solid | DI Leach | |
| 880-10005-27 | C-27 | Soluble | Solid | DI Leach | |
| 880-10005-28 | C-28 | Soluble | Solid | DI Leach | |
| 880-10005-29 | C-29 | Soluble | Solid | DI Leach | |
| 880-10005-30 | C-30 | Soluble | Solid | DI Leach | |
| 880-10005-31 | C-31 | Soluble | Solid | DI Leach | |
| MB 880-16445/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-16445/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-16445/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-10005-22 MS | C-22 | Soluble | Solid | DI Leach | |
| 880-10005-22 MSD | C-22 | Soluble | Solid | DI Leach | |

### Leach Batch: 16446

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-1 | C-1 | Soluble | Solid | DI Leach | |
| 880-10005-2 | C-2 | Soluble | Solid | DI Leach | |
| 880-10005-3 | C-3 | Soluble | Solid | DI Leach | |
| 880-10005-4 | C-4 | Soluble | Solid | DI Leach | |
| 880-10005-5 | C-5 | Soluble | Solid | DI Leach | |
| 880-10005-6 | C-6 | Soluble | Solid | DI Leach | |
| 880-10005-7 | C-7 | Soluble | Solid | DI Leach | |
| 880-10005-8 | C-8 | Soluble | Solid | DI Leach | |
| 880-10005-9 | C-9 | Soluble | Solid | DI Leach | |
| 880-10005-10 | C-10 | Soluble | Solid | DI Leach | |
| 880-10005-11 | C-11 | Soluble | Solid | DI Leach | |
| 880-10005-12 | C-12 | Soluble | Solid | DI Leach | |
| 880-10005-13 | C-13 | Soluble | Solid | DI Leach | |
| 880-10005-14 | C-14 | Soluble | Solid | DI Leach | |
| 880-10005-15 | C-15 | Soluble | Solid | DI Leach | |
| 880-10005-16 | C-16 | Soluble | Solid | DI Leach | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## HPLC/IC (Continued)

### Leach Batch: 16446 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-17 | C-17 | Soluble | Solid | DI Leach | |
| 880-10005-18 | C-18 | Soluble | Solid | DI Leach | |
| 880-10005-19 | C-19 | Soluble | Solid | DI Leach | |
| MB 880-16446/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-16446/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-16446/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-10005-10 MS | C-10 | Soluble | Solid | DI Leach | |
| 880-10005-10 MSD | C-10 | Soluble | Solid | DI Leach | |

### Leach Batch: 16447

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-32 | C-32 | Soluble | Solid | DI Leach | |
| 880-10005-33 | C-33 | Soluble | Solid | DI Leach | |
| 880-10005-34 | C-34 | Soluble | Solid | DI Leach | |
| 880-10005-35 | C-35 | Soluble | Solid | DI Leach | |
| 880-10005-36 | C-36 | Soluble | Solid | DI Leach | |
| 880-10005-37 | C-37 | Soluble | Solid | DI Leach | |
| 880-10005-38 | C-38 | Soluble | Solid | DI Leach | |
| 880-10005-39 | C-39 | Soluble | Solid | DI Leach | |
| 880-10005-40 | C-40 | Soluble | Solid | DI Leach | |
| 880-10005-41 | C-41 | Soluble | Solid | DI Leach | |
| 880-10005-42 | C-42 | Soluble | Solid | DI Leach | |
| 880-10005-43 | C-43 | Soluble | Solid | DI Leach | |
| 880-10005-44 | C-44 | Soluble | Solid | DI Leach | |
| 880-10005-45 | C-45 | Soluble | Solid | DI Leach | |
| 880-10005-46 | C-46 | Soluble | Solid | DI Leach | |
| 880-10005-47 | C-47 | Soluble | Solid | DI Leach | |
| 880-10005-48 | C-48 | Soluble | Solid | DI Leach | |
| 880-10005-49 | C-49 | Soluble | Solid | DI Leach | |
| 880-10005-50 | C-50 | Soluble | Solid | DI Leach | |
| 880-10005-51 | C-51 | Soluble | Solid | DI Leach | |
| MB 880-16447/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-16447/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-16447/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-10005-32 MS | C-32 | Soluble | Solid | DI Leach | |
| 880-10005-32 MSD | C-32 | Soluble | Solid | DI Leach | |
| 880-10005-42 MS | C-42 | Soluble | Solid | DI Leach | |
| 880-10005-42 MSD | C-42 | Soluble | Solid | DI Leach | |

### Analysis Batch: 16561

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-20 | C-20 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-21 | C-21 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-22 | C-22 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-23 | C-23 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-24 | C-24 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-25 | C-25 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-26 | C-26 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-27 | C-27 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-28 | C-28 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-29 | C-29 | Soluble | Solid | 300.0 | 16445 |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## HPLC/IC (Continued)

### Analysis Batch: 16561 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-30 | C-30 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-31 | C-31 | Soluble | Solid | 300.0 | 16445 |
| MB 880-16445/1-A | Method Blank | Soluble | Solid | 300.0 | 16445 |
| LCS 880-16445/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 16445 |
| LCSD 880-16445/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 16445 |
| 880-10005-22 MS | C-22 | Soluble | Solid | 300.0 | 16445 |
| 880-10005-22 MSD | C-22 | Soluble | Solid | 300.0 | 16445 |

### Analysis Batch: 16870

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-1 | C-1 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-2 | C-2 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-3 | C-3 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-4 | C-4 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-5 | C-5 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-6 | C-6 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-7 | C-7 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-8 | C-8 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-9 | C-9 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-10 | C-10 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-11 | C-11 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-12 | C-12 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-13 | C-13 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-14 | C-14 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-15 | C-15 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-16 | C-16 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-17 | C-17 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-18 | C-18 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-19 | C-19 | Soluble | Solid | 300.0 | 16446 |
| MB 880-16446/1-A | Method Blank | Soluble | Solid | 300.0 | 16446 |
| LCS 880-16446/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 16446 |
| LCSD 880-16446/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 16446 |
| 880-10005-10 MS | C-10 | Soluble | Solid | 300.0 | 16446 |
| 880-10005-10 MSD | C-10 | Soluble | Solid | 300.0 | 16446 |

### Analysis Batch: 16871

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-32 | C-32 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-33 | C-33 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-34 | C-34 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-35 | C-35 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-36 | C-36 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-37 | C-37 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-38 | C-38 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-39 | C-39 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-40 | C-40 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-41 | C-41 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-42 | C-42 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-43 | C-43 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-44 | C-44 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-45 | C-45 | Soluble | Solid | 300.0 | 16447 |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## HPLC/IC (Continued)

### Analysis Batch: 16871 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10005-46 | C-46 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-47 | C-47 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-48 | C-48 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-49 | C-49 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-50 | C-50 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-51 | C-51 | Soluble | Solid | 300.0 | 16447 |
| MB 880-16447/1-A | Method Blank | Soluble | Solid | 300.0 | 16447 |
| LCS 880-16447/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 16447 |
| LCSD 880-16447/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 16447 |
| 880-10005-32 MS | C-32 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-32 MSD | C-32 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-42 MS | C-42 | Soluble | Solid | 300.0 | 16447 |
| 880-10005-42 MSD | C-42 | Soluble | Solid | 300.0 | 16447 |

# Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-1 Lab Sample ID: 880-10005-1

**Date Collected: 01/07/22 10:00** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

| 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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 11:10 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 14:38 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16870 | 01/15/22 18:07 | CH | XEN MID |

## Client Sample ID: C-2 Lab Sample ID: 880-10005-2

**Date Collected: 01/07/22 10:02** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

| 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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 11:31 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 15:40 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 18:15 | CH | XEN MID |

## Client Sample ID: C-3 Lab Sample ID: 880-10005-3

**Date Collected: 01/07/22 10:04** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

| 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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 11:51 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 16:00 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 18:23 | CH | XEN MID |

## Client Sample ID: C-4 Lab Sample ID: 880-10005-4

**Date Collected: 01/07/22 10:06** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

| 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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 12:12 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |

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# Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## Client Sample ID: C-4 Lab Sample ID: 880-10005-4

**Date Collected: 01/07/22 10:06** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

| 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 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 16:21 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16870 | 01/15/22 18:32 | CH | XEN MID |

## Client Sample ID: C-5 Lab Sample ID: 880-10005-5

**Date Collected: 01/07/22 10:08** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

| 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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 12:32 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 16:41 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16870 | 01/17/22 14:04 | CH | XEN MID |

## Client Sample ID: C-6 Lab Sample ID: 880-10005-6

**Date Collected: 01/07/22 10:10** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

| 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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 12:52 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 17:02 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 18:58 | CH | XEN MID |

## Client Sample ID: C-7 Lab Sample ID: 880-10005-7

**Date Collected: 01/07/22 10:12** **Matrix: Solid**
**Date Received: 01/10/22 08:54**

| 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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 13:13 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 17:23 | AJ | XEN MID |

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# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-7

**Date Collected: 01/07/22 10:12**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-7**
**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 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 19:07 | CH | XEN MID |

## Client Sample ID: C-8

**Date Collected: 01/07/22 10:14**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-8**
**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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 13:33 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 17:43 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 19:15 | CH | XEN MID |

## Client Sample ID: C-9

**Date Collected: 01/07/22 10:16**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-9**
**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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 13:54 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 18:04 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 10 | | | 16870 | 01/15/22 19:23 | CH | XEN MID |

## Client Sample ID: C-10

**Date Collected: 01/07/22 10:18**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-10**
**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 | | | 5.05 g | 5 mL | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 14:14 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 18:25 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 19:32 | CH | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-11

**Date Collected: 01/07/22 10:20**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-11

**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 | | | 4.97 g | 5 mL | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 15:36 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 19:07 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 19:57 | CH | XEN MID |

## Client Sample ID: C-12

**Date Collected: 01/07/22 10:22**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-12

**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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 15:57 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 19:28 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16870 | 01/15/22 20:05 | CH | XEN MID |

## Client Sample ID: C-13

**Date Collected: 01/07/22 10:24**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-13

**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 | | | 4.96 g | 5 mL | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 16:17 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 19:49 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16870 | 01/15/22 20:30 | CH | XEN MID |

## Client Sample ID: C-14

**Date Collected: 01/07/22 10:26**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-14

**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 | | | 4.95 g | 5 mL | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 16:37 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-14

**Date Collected: 01/07/22 10:26**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-14

**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 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 20:10 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 20:38 | CH | XEN MID |

## Client Sample ID: C-15

**Date Collected: 01/07/22 10:28**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-15

**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 | | | 5.04 g | 5 mL | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 16:58 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 20:32 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 20:47 | CH | XEN MID |

## Client Sample ID: C-16

**Date Collected: 01/07/22 10:30**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-16

**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 | | | 5.00 g | 5 mL | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 17:18 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 20:53 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 20:55 | CH | XEN MID |

## Client Sample ID: C-17

**Date Collected: 01/07/22 10:32**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-17

**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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 17:39 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 21:15 | AJ | XEN MID |

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# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-17

**Date Collected: 01/07/22 10:32**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-17

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 21:03 | CH | XEN MID |

## Client Sample ID: C-18

**Date Collected: 01/07/22 10:34**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-18

**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 | | | 5.02 g | 5 mL | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 17:59 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 21:37 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 21:12 | CH | XEN MID |

## Client Sample ID: C-19

**Date Collected: 01/07/22 10:36**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-19

**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 | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 18:19 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 21:58 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 16446 | 01/10/22 13:47 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16870 | 01/15/22 21:20 | CH | XEN MID |

## Client Sample ID: C-20

**Date Collected: 01/07/22 10:38**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-20

**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 | | | 4.99 g | 5 mL | 16386 | 01/10/22 10:10 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 18:40 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16423 | 01/10/22 11:10 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16478 | 01/11/22 22:20 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16561 | 01/14/22 17:18 | CH | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-21

**Date Collected: 01/07/22 10:40**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-21**
**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 | | | 5.03 g | 5 mL | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 17:02 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 11:42 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16561 | 01/14/22 16:41 | CH | XEN MID |

## Client Sample ID: C-22

**Date Collected: 01/07/22 10:42**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-22**
**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 | | | 4.99 g | 5 mL | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 17:23 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 12:43 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16561 | 01/14/22 16:47 | CH | XEN MID |

## Client Sample ID: C-23

**Date Collected: 01/07/22 10:44**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-23**
**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 | | | 4.98 g | 5 mL | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 17:44 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 13:04 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16561 | 01/14/22 16:53 | CH | XEN MID |

## Client Sample ID: C-24

**Date Collected: 01/07/22 10:46**
**Date Received: 01/10/22 08:54**

**Lab Sample ID: 880-10005-24**
**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 | | | 5.00 g | 5 mL | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 18:04 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-24

**Date Collected: 01/07/22 10:46**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-24

**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 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 13:24 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16561 | 01/14/22 13:35 | CH | XEN MID |

## Client Sample ID: C-25

**Date Collected: 01/07/22 10:48**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-25

**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 | | | 4.95 g | 5 mL | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 18:25 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 13:44 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16561 | 01/17/22 17:42 | CH | XEN MID |

## Client Sample ID: C-26

**Date Collected: 01/07/22 10:50**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-26

**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 | | | 5.00 g | 5 mL | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 18:46 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 14:05 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16561 | 01/17/22 17:50 | CH | XEN MID |

## Client Sample ID: C-27

**Date Collected: 01/07/22 10:52**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-27

**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 19:07 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 14:26 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-27

**Date Collected: 01/07/22 10:52**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-27

**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 | | | 4.99 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16561 | 01/17/22 17:59 | CH | XEN MID |

## Client Sample ID: C-28

**Date Collected: 01/07/22 10:54**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-28

**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 19:27 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 14:46 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16561 | 01/17/22 18:41 | CH | XEN MID |

## Client Sample ID: C-29

**Date Collected: 01/07/22 10:56**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-29

**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 19:48 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 15:07 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16561 | 01/17/22 18:49 | CH | XEN MID |

## Client Sample ID: C-30

**Date Collected: 01/07/22 10:58**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-30

**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 20:09 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 15:27 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16561 | 01/17/22 18:58 | CH | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-31

**Date Collected: 01/07/22 11:00**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-31

**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 21:34 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 16:44 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16445 | 01/10/22 13:45 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16561 | 01/17/22 19:06 | CH | XEN MID |

## Client Sample ID: C-32

**Date Collected: 01/07/22 11:02**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-32

**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 21:55 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 17:05 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/14/22 21:37 | CH | XEN MID |

## Client Sample ID: C-33

**Date Collected: 01/07/22 11:04**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-33

**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 22:16 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 19:05 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/14/22 22:13 | CH | XEN MID |

## Client Sample ID: C-34

**Date Collected: 01/07/22 11:06**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-34

**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 22:37 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-34
**Date Collected: 01/07/22 11:06**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-34
**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 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 19:27 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/14/22 22:24 | CH | XEN MID |

## Client Sample ID: C-35
**Date Collected: 01/07/22 11:08**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-35
**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 22:58 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 19:50 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/14/22 22:36 | CH | XEN MID |

## Client Sample ID: C-36
**Date Collected: 01/07/22 11:10**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-36
**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 23:19 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 20:11 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/14/22 22:48 | CH | XEN MID |

## Client Sample ID: C-37
**Date Collected: 01/07/22 11:12**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-37
**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/11/22 23:40 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 20:33 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-37
**Date Collected: 01/07/22 11:12**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-37
**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 | | | 5.04 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/14/22 23:24 | CH | XEN MID |

## Client Sample ID: C-38
**Date Collected: 01/07/22 11:14**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-38
**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/12/22 00:00 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 20:56 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/14/22 23:36 | CH | XEN MID |

## Client Sample ID: C-39
**Date Collected: 01/07/22 11:16**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-39
**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/12/22 00:22 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 21:19 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/14/22 23:47 | CH | XEN MID |

## Client Sample ID: C-40
**Date Collected: 01/07/22 11:18**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-40
**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 | 16392 | 01/10/22 10:13 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16475 | 01/12/22 00:43 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16594 | 01/12/22 08:29 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16425 | 01/10/22 11:50 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 21:41 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/14/22 23:59 | CH | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-41

**Date Collected: 01/07/22 11:20**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-41

**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 22:03 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16424 | 01/10/22 11:18 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16336 | 01/11/22 02:10 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16871 | 01/15/22 00:11 | CH | XEN MID |

## Client Sample ID: C-42

**Date Collected: 01/07/22 11:22**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-42

**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 22:23 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16424 | 01/10/22 11:18 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16336 | 01/11/22 02:30 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/15/22 00:23 | CH | XEN MID |

## Client Sample ID: C-43

**Date Collected: 01/07/22 11:24**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-43

**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 22:44 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16424 | 01/10/22 11:18 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16336 | 01/11/22 02:51 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16871 | 01/15/22 00:58 | CH | XEN MID |

## Client Sample ID: C-44

**Date Collected: 01/07/22 11:26**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-44

**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 23:05 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-44

**Date Collected: 01/07/22 11:26**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-44

**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 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16424 | 01/10/22 11:18 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16336 | 01/11/22 03:12 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16871 | 01/15/22 01:10 | CH | XEN MID |

## Client Sample ID: C-45

**Date Collected: 01/07/22 11:28**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-45

**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 23:25 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16424 | 01/10/22 11:18 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16336 | 01/11/22 03:32 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16871 | 01/15/22 01:46 | CH | XEN MID |

## Client Sample ID: C-46

**Date Collected: 01/07/22 11:30**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-46

**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/11/22 23:46 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16424 | 01/10/22 11:18 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16336 | 01/11/22 03:53 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16871 | 01/15/22 01:58 | CH | XEN MID |

## Client Sample ID: C-47

**Date Collected: 01/07/22 11:32**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-47

**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/12/22 00:06 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16424 | 01/10/22 11:18 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16336 | 01/11/22 04:14 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-47
**Date Collected: 01/07/22 11:32**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-47
**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 | | | 5.03 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16871 | 01/15/22 02:10 | CH | XEN MID |

## Client Sample ID: C-48
**Date Collected: 01/07/22 11:34**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-48
**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/12/22 00:27 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16541 | 01/11/22 13:47 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/11/22 23:38 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16871 | 01/15/22 02:21 | CH | XEN MID |

## Client Sample ID: C-49
**Date Collected: 01/07/22 11:36**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-49
**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/12/22 00:47 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16541 | 01/11/22 13:47 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/12/22 00:48 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16871 | 01/15/22 02:33 | CH | XEN MID |

## Client Sample ID: C-50
**Date Collected: 01/07/22 11:38**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-50
**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/12/22 01:08 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16541 | 01/11/22 13:47 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/12/22 01:13 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | 0 mL | 1.0 mL | 16871 | 01/15/22 02:45 | CH | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

## Client Sample ID: C-51

**Date Collected: 01/07/22 11:40**
**Date Received: 01/10/22 08:54**

## Lab Sample ID: 880-10005-51

**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 | 16376 | 01/11/22 08:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16472 | 01/12/22 02:32 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 16785 | 01/13/22 13:36 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 16791 | 01/13/22 14:05 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16541 | 01/11/22 13:47 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16483 | 01/12/22 01:37 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 16447 | 01/10/22 13:49 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | 0 mL | 1.0 mL | 16871 | 01/15/22 02:57 | CH | XEN MID |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

## 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: 880-10005-1
Project/Site: Culebre Bluff SDG: 19-0180-07

| 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: Culebre Bluff

Job ID: 880-10005-1
SDG: 19-0180-07

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 880-10005-1 | C-1 | Solid | 01/07/22 10:00 | 01/10/22 08:54 |
| 880-10005-2 | C-2 | Solid | 01/07/22 10:02 | 01/10/22 08:54 |
| 880-10005-3 | C-3 | Solid | 01/07/22 10:04 | 01/10/22 08:54 |
| 880-10005-4 | C-4 | Solid | 01/07/22 10:06 | 01/10/22 08:54 |
| 880-10005-5 | C-5 | Solid | 01/07/22 10:08 | 01/10/22 08:54 |
| 880-10005-6 | C-6 | Solid | 01/07/22 10:10 | 01/10/22 08:54 |
| 880-10005-7 | C-7 | Solid | 01/07/22 10:12 | 01/10/22 08:54 |
| 880-10005-8 | C-8 | Solid | 01/07/22 10:14 | 01/10/22 08:54 |
| 880-10005-9 | C-9 | Solid | 01/07/22 10:16 | 01/10/22 08:54 |
| 880-10005-10 | C-10 | Solid | 01/07/22 10:18 | 01/10/22 08:54 |
| 880-10005-11 | C-11 | Solid | 01/07/22 10:20 | 01/10/22 08:54 |
| 880-10005-12 | C-12 | Solid | 01/07/22 10:22 | 01/10/22 08:54 |
| 880-10005-13 | C-13 | Solid | 01/07/22 10:24 | 01/10/22 08:54 |
| 880-10005-14 | C-14 | Solid | 01/07/22 10:26 | 01/10/22 08:54 |
| 880-10005-15 | C-15 | Solid | 01/07/22 10:28 | 01/10/22 08:54 |
| 880-10005-16 | C-16 | Solid | 01/07/22 10:30 | 01/10/22 08:54 |
| 880-10005-17 | C-17 | Solid | 01/07/22 10:32 | 01/10/22 08:54 |
| 880-10005-18 | C-18 | Solid | 01/07/22 10:34 | 01/10/22 08:54 |
| 880-10005-19 | C-19 | Solid | 01/07/22 10:36 | 01/10/22 08:54 |
| 880-10005-20 | C-20 | Solid | 01/07/22 10:38 | 01/10/22 08:54 |
| 880-10005-21 | C-21 | Solid | 01/07/22 10:40 | 01/10/22 08:54 |
| 880-10005-22 | C-22 | Solid | 01/07/22 10:42 | 01/10/22 08:54 |
| 880-10005-23 | C-23 | Solid | 01/07/22 10:44 | 01/10/22 08:54 |
| 880-10005-24 | C-24 | Solid | 01/07/22 10:46 | 01/10/22 08:54 |
| 880-10005-25 | C-25 | Solid | 01/07/22 10:48 | 01/10/22 08:54 |
| 880-10005-26 | C-26 | Solid | 01/07/22 10:50 | 01/10/22 08:54 |
| 880-10005-27 | C-27 | Solid | 01/07/22 10:52 | 01/10/22 08:54 |
| 880-10005-28 | C-28 | Solid | 01/07/22 10:54 | 01/10/22 08:54 |
| 880-10005-29 | C-29 | Solid | 01/07/22 10:56 | 01/10/22 08:54 |
| 880-10005-30 | C-30 | Solid | 01/07/22 10:58 | 01/10/22 08:54 |
| 880-10005-31 | C-31 | Solid | 01/07/22 11:00 | 01/10/22 08:54 |
| 880-10005-32 | C-32 | Solid | 01/07/22 11:02 | 01/10/22 08:54 |
| 880-10005-33 | C-33 | Solid | 01/07/22 11:04 | 01/10/22 08:54 |
| 880-10005-34 | C-34 | Solid | 01/07/22 11:06 | 01/10/22 08:54 |
| 880-10005-35 | C-35 | Solid | 01/07/22 11:08 | 01/10/22 08:54 |
| 880-10005-36 | C-36 | Solid | 01/07/22 11:10 | 01/10/22 08:54 |
| 880-10005-37 | C-37 | Solid | 01/07/22 11:12 | 01/10/22 08:54 |
| 880-10005-38 | C-38 | Solid | 01/07/22 11:14 | 01/10/22 08:54 |
| 880-10005-39 | C-39 | Solid | 01/07/22 11:16 | 01/10/22 08:54 |
| 880-10005-40 | C-40 | Solid | 01/07/22 11:18 | 01/10/22 08:54 |
| 880-10005-41 | C-41 | Solid | 01/07/22 11:20 | 01/10/22 08:54 |
| 880-10005-42 | C-42 | Solid | 01/07/22 11:22 | 01/10/22 08:54 |
| 880-10005-43 | C-43 | Solid | 01/07/22 11:24 | 01/10/22 08:54 |
| 880-10005-44 | C-44 | Solid | 01/07/22 11:26 | 01/10/22 08:54 |
| 880-10005-45 | C-45 | Solid | 01/07/22 11:28 | 01/10/22 08:54 |
| 880-10005-46 | C-46 | Solid | 01/07/22 11:30 | 01/10/22 08:54 |
| 880-10005-47 | C-47 | Solid | 01/07/22 11:32 | 01/10/22 08:54 |
| 880-10005-48 | C-48 | Solid | 01/07/22 11:34 | 01/10/22 08:54 |
| 880-10005-49 | C-49 | Solid | 01/07/22 11:36 | 01/10/22 08:54 |
| 880-10005-50 | C-50 | Solid | 01/07/22 11:38 | 01/10/22 08:54 |
| 880-10005-51 | C-51 | Solid | 01/07/22 11:40 | 01/10/22 08:54 |

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No. 2303

10005
1005

# CHAIN-OF-CUSTODY

1/18/2022

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

Data Reported to:

DATE: 11/01/2022 PAGE 1 OF 4

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Culebra Bluff

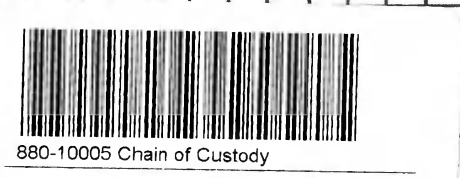
LAI PROJECT #: 19-0180-07 COLLECTOR: JR

TRRP report? ☐ Yes ☒ No

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

TIME ZONE: Time zone/State: MST/NM

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH | ICE | UNPRESSERVED | ANALYSES: BTEX 8021 ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ | PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ | 8151 HERBICIDES ☐ | 6082 PCBS ☐ | TCLP - METALS (RCRA) ☐ | TCLP - PEST ☐ | TCLP VOC ☐ | TOTAL METALS (RCRA) ☐ | HERB ☐ | Semi-VOC ☐ | LEAD - TOTAL ☐ | OTHER LIST ☐ | D.W. 200.8 ☐ | TCLP ☐ | RCI ☐ | TOX ☐ | FLASHPOINT ☐ | TDS ☐ | TSS ☐ | % MOISTURE ☐ | pH ☐ | HEXAVALENT CHROMIUM ☐ | CYANIDE ☐ | EXPLOSIVES ☐ | PECHLORATE ☐ | CHLORIDES ☐ | ANIONS ☐ | ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-1 | | 11/1/22 | 1000 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | X | | | | 202 |
| C-2 | | | 1002 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-3 | | | 1004 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-4 | | | 1006 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-5 | | | 1008 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-6 | | | 1010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-7 | | | 1012 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-8 | | | 1014 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-9 | | | 1016 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-10 | | | 1018 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-11 | | | 1020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-12 | | | 1022 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-13 | | | 1024 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-14 | | | 1026 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-15 | | | 1028 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |




| RELINQUISHED BY: (Signature) | DATE/TIME | RECEIVED BY: (Signature) |
|---|---|---|
| | 11/10/22 0854 | |
| 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 92 of 96

Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

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No. 2304

10005
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# CHAIN-OF-CUSTODY

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

DATE: 1/10/2022 PAGE 2 OF 4
PO#: LAB WORK ORDER#:
PROJECT LOCATION OR NAME: Culebra Bluff
LAI PROJECT #: 19-0180-07 COLLECTOR: JR
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

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

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

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ NaOH | ICE | UNPRESSERVED | BTEX | TRPH 418.1 | GASOLINE MOD 8015 | DIESEL - MOD 8015 | OIL - MOD 8015 | VOC 8260 | SVOC 8270 | 8081 PESTICIDES | 8082 PCBS | TCLP - METALS (RCRA) | TCLP - PEST | TOTAL METALS (RCRA) | LEAD - TOTAL | RCI | TDS | pH | EXPLOSIVES | CHLORIDE | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-16 | | 1/7/22 | 1030 | S | 1 | | | | X | | X | X | X | X | | | | | | | | | | | | | X | | |
| C-17 | | " | 1032 | " | " | | | | " | | " | " | " | " | | | | | | | | | | | | | " | | |
| C-18 | | | 1034 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-19 | | | 1036 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-20 | | | 1038 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-21 | | | 1040 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-22 | | | 1042 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-23 | | | 1044 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-24 | | | 1046 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-25 | | | 1048 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-26 | | | 1050 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-27 | | | 1052 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-28 | | | 1054 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-29 | | | 1056 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-30 | | " | 1058 | " | " | | | | " | | " | " | " | " | | | | | | | | | | | | | " | | |
| TOTAL | | | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY:(Signature) DATE/TIME 1/10/22 0854 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 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

Page 93 of 96

1/18/2022

Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

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10005
~~1005~~ LR

No. 2305

# CHAIN-OF-CUSTODY

1/18/2022

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

Data Reported to:

DATE: 1/10/2022 PAGE 3 OF 4

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Culebra Bluff

LAI PROJECT #: 19-0180-07 COLLECTOR: JR

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 ☐ | CYANIDE ☐ | HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ | PECHLORATE ☐ | CHLORIDE ☐ | ANIONS ☐ | ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-31 | | 1/7/22 | 1100 | S | 1 | | | | X | | X | | | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| C-32 | | | 1102 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-33 | | | 1104 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-34 | | | 1106 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-35 | | | 1108 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-36 | | | 1110 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-37 | | | 1112 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-38 | | | 1114 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-39 | | | 1116 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-40 | | | 1118 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-41 | | | 1120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-42 | | | 1122 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-43 | | | 1124 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-44 | | | 1126 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-45 | | | 1128 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY:(Signature) DATE/TIME 1/10/22 0851 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 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

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Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

Page 617 of 1002

10005 ~~1005~~ LR

No. 2306

# CHAIN-OF-CUSTODY

1/18/2022

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

Data Reported to:

DATE: 1/10/2022 PAGE 4 OF 4

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Culebra Bluff

LAI PROJECT #: 190180-07 COLLECTOR: JR

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 ☐ | 8082 PCBS ☐ | 8151 HERBICIDES ☐ | TCLP - METALS (RCRA) ☐ | TCLP - PEST ☐ HERB ☐ | TCLP VOC ☐ | TOTAL METALS (RCRA) ☐ | Semi-VOC ☐ | LEAD - TOTAL ☐ | D.W. 200.8 ☐ | OTHER LIST ☐ | RCI ☐ | TOX ☐ | TCLP ☐ | TDS ☐ | TSS ☐ | FLASHPOINT ☐ | pH ☐ | % MOISTURE ☐ | HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ | CYANIDE ☐ | CHLORIDE ☒ | PECHLORATE ☐ | ANIONS ☐ | ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-46 | | 1/7/22 | 1130 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | X | | | | |
| C-47 | | " | 1132 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-48 | | " | 1134 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-49 | | " | 1136 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-50 | | " | 1138 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-51 | | " | 1140 | " | " | | | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
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RELINQUISHED BY:(Signature) DATE/TIME 1/10/22 0854 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: 0 1.2 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

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Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

# Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-10005-1
SDG Number: 19-0180-07

**Login Number: 10005**
**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: 880-10171-1
Laboratory Sample Delivery Group: 19-0180-07
Client Project/Site: Culebre Bluff SE 532 Fed Com 3

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

Attn: Mr. Mark J Larson

Holly Taylor

*Authorized for release by:*
*1/20/2022 3:47:47 PM*

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

LINKS

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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.*

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# Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## 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 |
|---|---|
| F2 | MS/MSD RPD exceeds control limits |
| U | Indicates the analyte was analyzed for but not detected. |

### HPLC/IC

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

## Glossary

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

# Case Narrative

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Job ID: 880-10171-1

**Laboratory: Eurofins Midland**

**Narrative**

**Job Narrative**
**880-10171-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 1/13/2022 8:25 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: Surrogate recovery for the following samples were outside control limits: (MB 880-16834/5-A) and (MB 880-16835/5-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-16835 and analytical batch 880-16936 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-16740 and analytical batch 880-16837 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: C56 2' (880-10171-5) and C63 2' (880-10171-12). Evidence of matrix interferences is not obvious.

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

**GC Semi VOA**
Method 8015B NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-16817 and analytical batch 880-16954 was 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.

**General Chemistry**
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-16771 and analytical batch 880-16934 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. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C52 2'

**Lab Sample ID: 880-10171-1**
**Date Collected: 01/12/22 08:00**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U F1 | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:26 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:26 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:26 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:26 | 1 |
| o-Xylene | <0.00199 | U F2 F1 | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:26 | 1 |
| Xylenes, Total | <0.00398 | U F1 | 0.00398 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *119* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 16:26* | *1* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 16:26* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 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 F2 | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 12:46 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 12:46 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 12:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *87* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 12:46* | *1* |
| *o-Terphenyl (Surr)* | *81* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 12:46* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **262** | | 4.95 | | mg/Kg | | | 01/17/22 20:00 | 1 |

## Client Sample ID: C53 2'

**Lab Sample ID: 880-10171-2**
**Date Collected: 01/12/22 08:02**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:47 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:47 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:47 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:47 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:47 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 16:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *117* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 16:47* | *1* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 16:47* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C53 2'

**Lab Sample ID: 880-10171-2**
**Date Collected: 01/12/22 08:02**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 13:49 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 13:49 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 13:49 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *82* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 13:49* | *1* |
| *o-Terphenyl (Surr)* | *79* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 13:49* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **299** | | 5.04 | | mg/Kg | | | 01/17/22 20:22 | 1 |

## Client Sample ID: C54 2'

**Lab Sample ID: 880-10171-3**
**Date Collected: 01/12/22 08:04**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:07 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:07 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:07 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:07 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:07 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 17:07* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 17:07* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 14:10 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 14:10 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C54 2' — Lab Sample ID: 880-10171-3

**Date Collected: 01/12/22 08:04** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 14:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *85* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 14:10* | *1* |
| *o-Terphenyl (Surr)* | *88* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 14:10* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **244** | | 4.95 | | mg/Kg | | | 01/17/22 20:30 | 1 |

## Client Sample ID: C55 2' — Lab Sample ID: 880-10171-4

**Date Collected: 01/12/22 08:06** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:27 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:27 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:27 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:27 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:27 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *129* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 17:27* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 17:27* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 14:30 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 14:30 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 14:30 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *83* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 14:30* | *1* |
| *o-Terphenyl (Surr)* | *84* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 14:30* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **510** | | 5.00 | | mg/Kg | | | 01/17/22 20:37 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C56 2'

**Lab Sample ID: 880-10171-5**
**Date Collected: 01/12/22 08:08**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:48 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:48 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:48 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:48 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:48 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 17:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *142* | *S1+* | *70 - 130* | *01/13/22 10:34* | *01/15/22 17:48* | *1* |
| *1,4-Difluorobenzene (Surr)* | *117* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 17:48* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **64.1** | | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 14:51 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **64.1** | | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 14:51 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 14:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *85* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 14:51* | *1* |
| *o-Terphenyl (Surr)* | *86* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 14:51* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **662** | | 4.99 | | mg/Kg | | | 01/17/22 20:45 | 1 |

## Client Sample ID: C57 2'

**Lab Sample ID: 880-10171-6**
**Date Collected: 01/12/22 08:10**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:08 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:08 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:08 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:08 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:08 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:08 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 18:08* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 18:08* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C57 2'

**Lab Sample ID: 880-10171-6**
**Date Collected: 01/12/22 08:10** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00404 | U | 0.00404 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **94.7** | | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 15:12 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **94.7** | | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 15:12 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 15:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *85* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 15:12* | *1* |
| *o-Terphenyl (Surr)* | *87* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 15:12* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **633** | | 5.01 | | mg/Kg | | | 01/17/22 21:07 | 1 |

## Client Sample ID: C58 2'

**Lab Sample ID: 880-10171-7**
**Date Collected: 01/12/22 08:12** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:29 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:29 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:29 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:29 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:29 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:29 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 18:29* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 18:29* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 15:33 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 15:33 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C58 2' — Lab Sample ID: 880-10171-7

**Date Collected: 01/12/22 08:12** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 15:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *85* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 15:33* | *1* |
| *o-Terphenyl (Surr)* | *88* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 15:33* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **448** | | 4.98 | | mg/Kg | | | 01/17/22 21:15 | 1 |

## Client Sample ID: C59 2' — Lab Sample ID: 880-10171-8

**Date Collected: 01/12/22 08:14** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:49 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:49 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:49 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:49 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:49 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 18:49 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *124* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 18:49* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 18:49* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 15:54 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 15:54 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 15:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *86* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 15:54* | *1* |
| *o-Terphenyl (Surr)* | *90* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 15:54* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2320** | | 24.8 | | mg/Kg | | | 01/17/22 21:22 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C60 2' — Lab Sample ID: 880-10171-9

**Date Collected: 01/12/22 08:16** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:10 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:10 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:10 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:10 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:10 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 19:10* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 19:10* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **842** | | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 16:15 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **842** | | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 16:15 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 16:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *86* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 16:15* | *1* |
| *o-Terphenyl (Surr)* | *88* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 16:15* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2890** | | 25.2 | | mg/Kg | | | 01/17/22 21:30 | 5 |

## Client Sample ID: C61 2' — Lab Sample ID: 880-10171-10

**Date Collected: 01/12/22 08:18** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:30 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:30 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:30 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:30 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:30 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 19:30 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *108* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 19:30* | *1* |
| *1,4-Difluorobenzene (Surr)* | *89* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 19:30* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C61 2' — Lab Sample ID: 880-10171-10

**Date Collected: 01/12/22 08:18** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 16:36 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 16:36 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 16:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *98* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 16:36* | *1* |
| *o-Terphenyl (Surr)* | *102* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 16:36* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **605** | | 4.99 | | mg/Kg | | | 01/17/22 21:38 | 1 |

## Client Sample ID: C62 2' — Lab Sample ID: 880-10171-11

**Date Collected: 01/12/22 08:20** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:20 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:20 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:20 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:20 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:20 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *110* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 21:20* | *1* |
| *1,4-Difluorobenzene (Surr)* | *94* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 21:20* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 17:18 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 17:18 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C62 2' — Lab Sample ID: 880-10171-11

**Date Collected: 01/12/22 08:20** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 17:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *88* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 17:18* | *1* |
| *o-Terphenyl (Surr)* | *89* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 17:18* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **504** | | 4.99 | | mg/Kg | | | 01/17/22 21:45 | 1 |

## Client Sample ID: C63 2' — Lab Sample ID: 880-10171-12

**Date Collected: 01/12/22 08:22** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:41 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:41 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:41 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:41 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:41 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 21:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *132* | *S1+* | *70 - 130* | *01/13/22 10:34* | *01/15/22 21:41* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 21:41* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **86.4** | | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 17:39 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **86.4** | | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 17:39 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 17:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *87* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 17:39* | *1* |
| *o-Terphenyl (Surr)* | *89* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 17:39* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1620** | | 24.9 | | mg/Kg | | | 01/17/22 22:08 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C64 2' — Lab Sample ID: 880-10171-13

**Date Collected: 01/12/22 08:24** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:01 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:01 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:01 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:01 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:01 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:01 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *121* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 22:01* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 22:01* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 18:00 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 18:00 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 18:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *85* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 18:00* | *1* |
| *o-Terphenyl (Surr)* | *90* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 18:00* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **951** | | 5.03 | | mg/Kg | | | 01/18/22 04:00 | 1 |

## Client Sample ID: C65 2' — Lab Sample ID: 880-10171-14

**Date Collected: 01/12/22 08:26** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:22 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:22 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:22 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:22 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:22 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *118* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 22:22* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 22:22* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C65 2' — Lab Sample ID: 880-10171-14

**Date Collected: 01/12/22 08:26** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **120** | | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 18:21 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **120** | | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 18:21 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 18:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *84* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 18:21* | *1* |
| *o-Terphenyl (Surr)* | *85* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 18:21* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1330** | | 24.9 | | mg/Kg | | | 01/18/22 04:25 | 5 |

## Client Sample ID: C66 2' — Lab Sample ID: 880-10171-15

**Date Collected: 01/12/22 08:28** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:42 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:42 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:42 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:42 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:42 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 22:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 22:42* | *1* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 22:42* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 18:42 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 18:42 | 1 |

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# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C66 2' — Lab Sample ID: 880-10171-15

**Date Collected: 01/12/22 08:28** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 18:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *87* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 18:42* | *1* |
| *o-Terphenyl (Surr)* | *88* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 18:42* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **757** | | 4.98 | | mg/Kg | | | 01/18/22 04:33 | 1 |

## Client Sample ID: C67 2' — Lab Sample ID: 880-10171-16

**Date Collected: 01/12/22 08:30** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:02 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:02 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:02 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:02 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:02 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 23:02* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 23:02* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 19:03 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 19:03 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 19:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *89* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 19:03* | *1* |
| *o-Terphenyl (Surr)* | *89* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 19:03* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **734** | | 5.00 | | mg/Kg | | | 01/18/22 04:42 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C68 2' — Lab Sample ID: 880-10171-17

**Date Collected: 01/12/22 08:32** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:23 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:23 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:23 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:23 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:23 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:23 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 23:23* | *1* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 23:23* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00396 | U | 0.00396 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 19:23 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 19:23 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 19:23 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *87* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 19:23* | *1* |
| *o-Terphenyl (Surr)* | *85* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 19:23* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **495** | | 4.99 | | mg/Kg | | | 01/18/22 04:50 | 1 |

## Client Sample ID: C69 2' — Lab Sample ID: 880-10171-18

**Date Collected: 01/12/22 08:34** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:43 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:43 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:43 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:43 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:43 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 23:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *125* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 23:43* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 23:43* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C69 2' — Lab Sample ID: 880-10171-18

**Date Collected: 01/12/22 08:34** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 19:44 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 19:44 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 19:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *88* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 19:44* | *1* |
| *o-Terphenyl (Surr)* | *89* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 19:44* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **536** | | 5.05 | | mg/Kg | | | 01/18/22 05:15 | 1 |

## Client Sample ID: C70 2' — Lab Sample ID: 880-10171-19

**Date Collected: 01/12/22 08:36** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:04 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:04 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:04 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:04 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:04 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:04 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* | *01/13/22 10:34* | *01/16/22 00:04* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *01/13/22 10:34* | *01/16/22 00:04* | *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 | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 20:06 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 20:06 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C70 2' — Lab Sample ID: 880-10171-19

**Date Collected: 01/12/22 08:36** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 20:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *94* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 20:06* | *1* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 20:06* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **710** | | 4.97 | | mg/Kg | | | 01/18/22 05:24 | 1 |

## Client Sample ID: C71 2' — Lab Sample ID: 880-10171-20

**Date Collected: 01/12/22 08:38** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:24 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:24 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:24 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:24 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:24 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/13/22 10:34 | 01/16/22 00:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *119* | | *70 - 130* | *01/13/22 10:34* | *01/16/22 00:24* | *1* |
| *1,4-Difluorobenzene (Surr)* | *108* | | *70 - 130* | *01/13/22 10:34* | *01/16/22 00:24* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 20:26 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 20:26 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 20:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *89* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 20:26* | *1* |
| *o-Terphenyl (Surr)* | *89* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 20:26* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **613** | | 4.97 | | mg/Kg | | | 01/18/22 05:32 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C72 2'

**Lab Sample ID: 880-10171-21**
**Date Collected: 01/12/22 08:40**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

### 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 | | 01/14/22 09:21 | 01/16/22 18:33 | 1 |
| Toluene | <0.00199 | U F1 | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:33 | 1 |
| Ethylbenzene | <0.00199 | U F1 F2 | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:33 | 1 |
| m,p-Xylenes | <0.00398 | U F1 F2 | 0.00398 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:33 | 1 |
| o-Xylene | <0.00199 | U F1 F2 | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:33 | 1 |
| Xylenes, Total | <0.00398 | U F1 F2 | 0.00398 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *93* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 18:33* | *1* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 18:33* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 22:11 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 22:11 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 22:11 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *102* | | *70 - 130* | *01/13/22 16:27* | *01/16/22 22:11* | *1* |
| *o-Terphenyl (Surr)* | *103* | | *70 - 130* | *01/13/22 16:27* | *01/16/22 22:11* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **622** | | 4.96 | | mg/Kg | | | 01/18/22 05:40 | 1 |

## Client Sample ID: C73 2'

**Lab Sample ID: 880-10171-22**
**Date Collected: 01/12/22 08:42**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:00 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:00 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:00 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:00 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:00 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *88* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 19:00* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 19:00* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C73 2'

**Lab Sample ID: 880-10171-22**
**Date Collected: 01/12/22 08:42**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 23:13 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 23:13 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 23:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *91* | | *70 - 130* | *01/13/22 16:27* | *01/16/22 23:13* | *1* |
| *o-Terphenyl (Surr)* | *91* | | *70 - 130* | *01/13/22 16:27* | *01/16/22 23:13* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2170** | | 25.0 | | mg/Kg | | | 01/18/22 05:49 | 5 |

## Client Sample ID: C74 2'

**Lab Sample ID: 880-10171-23**
**Date Collected: 01/12/22 08:44**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:27 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:27 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:27 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:27 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:27 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 19:27* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 19:27* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 23:34 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 23:34 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C74 2' — Lab Sample ID: 880-10171-23

**Date Collected: 01/12/22 08:44** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 23:34 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *86* | | *70 - 130* | *01/13/22 16:27* | *01/16/22 23:34* | *1* |
| *o-Terphenyl (Surr)* | *87* | | *70 - 130* | *01/13/22 16:27* | *01/16/22 23:34* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **439** | **F1** | 4.96 | | mg/Kg | | | 01/18/22 05:57 | 1 |

## Client Sample ID: C75 2' — Lab Sample ID: 880-10171-24

**Date Collected: 01/12/22 08:46** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:54 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:54 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:54 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:54 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:54 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 19:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 19:54* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 19:54* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00404 | U | 0.00404 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 23:54 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 23:54 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/16/22 23:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *89* | | *70 - 130* | *01/13/22 16:27* | *01/16/22 23:54* | *1* |
| *o-Terphenyl (Surr)* | *89* | | *70 - 130* | *01/13/22 16:27* | *01/16/22 23:54* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **525** | | 5.02 | | mg/Kg | | | 01/18/22 06:22 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C76 2' — Lab Sample ID: 880-10171-25

**Date Collected: 01/12/22 08:48** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:20 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:20 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:20 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:20 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:20 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 20:20* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 20:20* | *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 | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 00:15 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 00:15 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 00:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 00:15* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 00:15* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **789** | | 5.04 | | mg/Kg | | | 01/18/22 06:30 | 1 |

## Client Sample ID: C77 2' — Lab Sample ID: 880-10171-26

**Date Collected: 01/12/22 08:50** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:47 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:47 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:47 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:47 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:47 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 20:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *79* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 20:47* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 20:47* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C77 2'

**Lab Sample ID: 880-10171-26**
**Date Collected: 01/12/22 08:50**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 00:36 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 00:36 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 00:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 00:36* | *1* |
| *o-Terphenyl (Surr)* | *91* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 00:36* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1060** | | 4.99 | | mg/Kg | | | 01/18/22 06:55 | 1 |

## Client Sample ID: C78 2'

**Lab Sample ID: 880-10171-27**
**Date Collected: 01/12/22 08:52**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:14 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:14 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:14 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:14 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:14 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 21:14* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 21:14* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 00:56 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 00:56 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C78 2'

**Lab Sample ID: 880-10171-27**
**Date Collected: 01/12/22 08:52**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 00:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *91* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 00:56* | *1* |
| *o-Terphenyl (Surr)* | *91* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 00:56* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1080** | | 4.99 | | mg/Kg | | | 01/18/22 07:04 | 1 |

## Client Sample ID: C79 2'

**Lab Sample ID: 880-10171-28**
**Date Collected: 01/12/22 08:54**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:41 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:41 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:41 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:41 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:41 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 21:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 21:41* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 21:41* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 01/20/22 16:12 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 01:17 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 01:17 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 01:17 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *96* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 01:17* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 01:17* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **443** | | 4.99 | | mg/Kg | | | 01/18/22 07:12 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C80 2'

**Lab Sample ID: 880-10171-29**
**Date Collected: 01/12/22 08:56**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:08 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:08 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:08 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:08 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:08 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:08 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *91* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 22:08* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 22:08* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00404 | U | 0.00404 | | mg/Kg | | | 01/20/22 16:32 | 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 | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 01:37 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 01:37 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 01:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *97* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 01:37* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 01:37* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **444** | | 4.99 | | mg/Kg | | | 01/18/22 07:20 | 1 |

## Client Sample ID: C81 2'

**Lab Sample ID: 880-10171-30**
**Date Collected: 01/12/22 08:58**
**Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:35 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:35 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:35 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:35 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:35 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 22:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 22:35* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 22:35* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C81 2' — Lab Sample ID: 880-10171-30

**Date Collected: 01/12/22 08:58** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 01/20/22 16:32 | 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 | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 01:57 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 01:57 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 01:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *99* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 01:57* | *1* |
| *o-Terphenyl (Surr)* | *97* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 01:57* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **904** | | 24.8 | | mg/Kg | | | 01/18/22 07:29 | 5 |

## Client Sample ID: C82 2' — Lab Sample ID: 880-10171-31

**Date Collected: 01/12/22 09:00** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:21 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:21 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:21 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:21 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:21 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *108* | | *70 - 130* | *01/14/22 09:21* | *01/17/22 00:21* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *01/14/22 09:21* | *01/17/22 00:21* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/20/22 16:32 | 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 | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 02:38 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 02:38 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C82 2' — Lab Sample ID: 880-10171-31

**Date Collected: 01/12/22 09:00** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 02:38 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *90* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 02:38* | *1* |
| *o-Terphenyl (Surr)* | *91* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 02:38* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1090** | | 24.8 | | mg/Kg | | | 01/18/22 07:37 | 5 |

## Client Sample ID: C83 2' — Lab Sample ID: 880-10171-32

**Date Collected: 01/12/22 09:02** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:48 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:48 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:48 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:48 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:48 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 01/14/22 09:21 | 01/17/22 00:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *93* | | *70 - 130* | *01/14/22 09:21* | *01/17/22 00:48* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *01/14/22 09:21* | *01/17/22 00:48* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 01/20/22 16:32 | 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 | | | 01/17/22 12:45 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 02:58 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 02:58 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/13/22 16:27 | 01/17/22 02:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *91* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 02:58* | *1* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* | *01/13/22 16:27* | *01/17/22 02:58* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **888** | | 4.99 | | mg/Kg | | | 01/18/22 08:43 | 1 |

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

## 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) |
| 880-10171-1 | C52 2' | 119 | 92 |
| 880-10171-1 MS | C52 2' | 114 | 99 |
| 880-10171-1 MSD | C52 2' | 112 | 91 |
| 880-10171-2 | C53 2' | 117 | 95 |
| 880-10171-3 | C54 2' | 120 | 106 |
| 880-10171-4 | C55 2' | 129 | 102 |
| 880-10171-5 | C56 2' | 142 S1+ | 117 |
| 880-10171-6 | C57 2' | 115 | 97 |
| 880-10171-7 | C58 2' | 120 | 99 |
| 880-10171-8 | C59 2' | 124 | 99 |
| 880-10171-9 | C60 2' | 120 | 107 |
| 880-10171-10 | C61 2' | 108 | 89 |
| 880-10171-11 | C62 2' | 110 | 94 |
| 880-10171-12 | C63 2' | 132 S1+ | 93 |
| 880-10171-13 | C64 2' | 121 | 102 |
| 880-10171-14 | C65 2' | 118 | 100 |
| 880-10171-15 | C66 2' | 120 | 95 |
| 880-10171-16 | C67 2' | 113 | 104 |
| 880-10171-17 | C68 2' | 115 | 91 |
| 880-10171-18 | C69 2' | 125 | 98 |
| 880-10171-19 | C70 2' | 114 | 96 |
| 880-10171-20 | C71 2' | 119 | 108 |
| 880-10171-21 | C72 2' | 93 | 95 |
| 880-10171-21 MS | C72 2' | 7901 S1+ | 84 |
| 880-10171-21 MSD | C72 2' | 2359 S1+ | 20 S1- |
| 880-10171-22 | C73 2' | 88 | 102 |
| 880-10171-23 | C74 2' | 100 | 103 |
| 880-10171-24 | C75 2' | 100 | 105 |
| 880-10171-25 | C76 2' | 95 | 104 |
| 880-10171-26 | C77 2' | 79 | 102 |
| 880-10171-27 | C78 2' | 98 | 107 |
| 880-10171-28 | C79 2' | 100 | 107 |
| 880-10171-29 | C80 2' | 91 | 100 |
| 880-10171-30 | C81 2' | 90 | 104 |
| 880-10171-31 | C82 2' | 108 | 104 |
| 880-10171-32 | C83 2' | 93 | 100 |
| 890-1829-A-11-B MS | Matrix Spike | 750 S1+ | 27 S1- |
| 890-1829-A-11-E MSD | Matrix Spike Duplicate | 168 S1+ | 94 |
| LCS 880-16740/1-A | Lab Control Sample | 110 | 97 |
| LCS 880-16835/1-A | Lab Control Sample | 81 | 109 |
| LCS 880-16969/1-A | Lab Control Sample | 109 | 96 |
| LCSD 880-16740/2-A | Lab Control Sample Dup | 108 | 90 |
| LCSD 880-16835/2-A | Lab Control Sample Dup | 83 | 106 |
| LCSD 880-16969/2-A | Lab Control Sample Dup | 111 | 104 |
| MB 880-16737/5-A | Method Blank | 113 | 95 |
| MB 880-16740/5-A | Method Blank | 124 | 106 |
| MB 880-16834/5-A | Method Blank | 62 S1- | 93 |
| MB 880-16835/5-A | Method Blank | 60 S1- | 96 |
| MB 880-16867/5-A | Method Blank | 121 | 104 |

# Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | BFB1 (70-130) | DFBZ1 (70-130) |
| MB 880-16969/5-A | Method Blank | 120 | 105 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | 1CO1 (70-130) | OTPH1 (70-130) |
| 880-10171-1 | C52 2' | 87 | 81 |
| 880-10171-1 MS | C52 2' | 83 | 73 |
| 880-10171-1 MSD | C52 2' | 91 | 84 |
| 880-10171-2 | C53 2' | 82 | 79 |
| 880-10171-3 | C54 2' | 85 | 88 |
| 880-10171-4 | C55 2' | 83 | 84 |
| 880-10171-5 | C56 2' | 85 | 86 |
| 880-10171-6 | C57 2' | 85 | 87 |
| 880-10171-7 | C58 2' | 85 | 88 |
| 880-10171-8 | C59 2' | 86 | 90 |
| 880-10171-9 | C60 2' | 86 | 88 |
| 880-10171-10 | C61 2' | 98 | 102 |
| 880-10171-11 | C62 2' | 88 | 89 |
| 880-10171-12 | C63 2' | 87 | 89 |
| 880-10171-13 | C64 2' | 85 | 90 |
| 880-10171-14 | C65 2' | 84 | 85 |
| 880-10171-15 | C66 2' | 87 | 88 |
| 880-10171-16 | C67 2' | 89 | 89 |
| 880-10171-17 | C68 2' | 87 | 85 |
| 880-10171-18 | C69 2' | 88 | 89 |
| 880-10171-19 | C70 2' | 94 | 93 |
| 880-10171-20 | C71 2' | 89 | 89 |
| 880-10171-21 | C72 2' | 102 | 103 |
| 880-10171-21 MS | C72 2' | 94 | 88 |
| 880-10171-21 MSD | C72 2' | 98 | 92 |
| 880-10171-22 | C73 2' | 91 | 91 |
| 880-10171-23 | C74 2' | 86 | 87 |
| 880-10171-24 | C75 2' | 89 | 89 |
| 880-10171-25 | C76 2' | 95 | 95 |
| 880-10171-26 | C77 2' | 95 | 91 |
| 880-10171-27 | C78 2' | 91 | 91 |
| 880-10171-28 | C79 2' | 96 | 95 |
| 880-10171-29 | C80 2' | 97 | 95 |
| 880-10171-30 | C81 2' | 99 | 97 |
| 880-10171-31 | C82 2' | 90 | 91 |
| 880-10171-32 | C83 2' | 91 | 93 |

**Surrogate Legend**

1CO = 1-Chlorooctane (Surr)

# Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

OTPH = o-Terphenyl (Surr)

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | 1CO2 (70-130) | OTPH2 (70-130) | | | | | | | | |
| LCS 880-16804/2-A | Lab Control Sample | 114 | 111 | | | | | | | | |
| LCS 880-16817/2-A | Lab Control Sample | 112 | 107 | | | | | | | | |
| LCSD 880-16804/3-A | Lab Control Sample Dup | 113 | 106 | | | | | | | | |
| LCSD 880-16817/3-A | Lab Control Sample Dup | 109 | 106 | | | | | | | | |
| MB 880-16804/1-A | Method Blank | 95 | 95 | | | | | | | | |
| MB 880-16817/1-A | Method Blank | 95 | 94 | | | | | | | | |

**Surrogate Legend**

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

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

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

**Lab Sample ID: MB 880-16737/5-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16837** **Prep Batch: 16737**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 07:30 | 01/15/22 03:40 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 07:30 | 01/15/22 03:40 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 07:30 | 01/15/22 03:40 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/14/22 07:30 | 01/15/22 03:40 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 07:30 | 01/15/22 03:40 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/14/22 07:30 | 01/15/22 03:40 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* | *01/14/22 07:30* | *01/15/22 03:40* | *1* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* | *01/14/22 07:30* | *01/15/22 03:40* | *1* |

**Lab Sample ID: MB 880-16740/5-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16837** **Prep Batch: 16740**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 15:57 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 15:57 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 15:57 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 15:57 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 15:57 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/13/22 10:34 | 01/15/22 15:57 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *124* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 15:57* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *01/13/22 10:34* | *01/15/22 15:57* | *1* |

**Lab Sample ID: LCS 880-16740/1-A** **Client Sample ID: Lab Control Sample**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16837** **Prep Batch: 16740**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.09369 | | mg/Kg | | 94 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.09944 | | mg/Kg | | 99 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.1056 | | mg/Kg | | 106 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.2039 | | mg/Kg | | 102 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.09791 | | mg/Kg | | 98 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *110* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* |

**Lab Sample ID: LCSD 880-16740/2-A** **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16837** **Prep Batch: 16740**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.08962 | | mg/Kg | | 90 | 70 - 130 | 4 | 35 |

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

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

**Lab Sample ID: LCSD 880-16740/2-A** **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16837** **Prep Batch: 16740**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Toluene | | | 0.100 | 0.09602 | | mg/Kg | | 96 | 70 - 130 | 3 | 35 |
| Ethylbenzene | | | 0.100 | 0.09626 | | mg/Kg | | 96 | 70 - 130 | 9 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1965 | | mg/Kg | | 98 | 70 - 130 | 4 | 35 |
| o-Xylene | | | 0.100 | 0.09951 | | mg/Kg | | 100 | 70 - 130 | 2 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *108* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *90* | | *70 - 130* |

**Lab Sample ID: 880-10171-1 MS** **Client Sample ID: C52 2'**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16837** **Prep Batch: 16740**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U F1 | 0.0996 | 0.06683 | F1 | mg/Kg | | 67 | 70 - 130 |
| Toluene | <0.00199 | U | 0.0996 | 0.07048 | | mg/Kg | | 71 | 70 - 130 |
| Ethylbenzene | <0.00199 | U | 0.0996 | 0.07757 | | mg/Kg | | 78 | 70 - 130 |
| m,p-Xylenes | <0.00398 | U | 0.199 | 0.1474 | | mg/Kg | | 74 | 70 - 130 |
| o-Xylene | <0.00199 | U F2 F1 | 0.0996 | 0.07194 | | mg/Kg | | 72 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* |

**Lab Sample ID: 880-10171-1 MSD** **Client Sample ID: C52 2'**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16837** **Prep Batch: 16740**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U F1 | 0.0994 | 0.07683 | | mg/Kg | | 77 | 70 - 130 | 14 | 35 |
| Toluene | <0.00199 | U | 0.0994 | 0.08093 | | mg/Kg | | 81 | 70 - 130 | 14 | 35 |
| Ethylbenzene | <0.00199 | U | 0.0994 | 0.08422 | | mg/Kg | | 85 | 70 - 130 | 8 | 35 |
| m,p-Xylenes | <0.00398 | U | 0.199 | 0.1533 | | mg/Kg | | 77 | 70 - 130 | 4 | 35 |
| o-Xylene | <0.00199 | U F2 F1 | 0.0994 | 0.03658 | F2 F1 | mg/Kg | | 37 | 70 - 130 | 65 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *112* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* |

**Lab Sample ID: MB 880-16834/5-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16936** **Prep Batch: 16834**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:19 | 01/16/22 04:04 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:19 | 01/16/22 04:04 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:19 | 01/16/22 04:04 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/14/22 09:19 | 01/16/22 04:04 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

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

**Lab Sample ID: MB 880-16834/5-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16936** **Prep Batch: 16834**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:19 | 01/16/22 04:04 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/14/22 09:19 | 01/16/22 04:04 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *62* | *S1-* | *70 - 130* | *01/14/22 09:19* | *01/16/22 04:04* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *01/14/22 09:19* | *01/16/22 04:04* | *1* |

**Lab Sample ID: MB 880-16835/5-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16936** **Prep Batch: 16835**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:06 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:06 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:06 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:06 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:06 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/14/22 09:21 | 01/16/22 18:06 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *60* | *S1-* | *70 - 130* | *01/14/22 09:21* | *01/16/22 18:06* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *01/14/22 09:21* | *01/16/22 18:06* | *1* |

**Lab Sample ID: LCS 880-16835/1-A** **Client Sample ID: Lab Control Sample**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16936** **Prep Batch: 16835**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1100 | | mg/Kg | | 110 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.1061 | | mg/Kg | | 106 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.08542 | | mg/Kg | | 85 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.1875 | | mg/Kg | | 94 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.09619 | | mg/Kg | | 96 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *81* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* |

**Lab Sample ID: LCSD 880-16835/2-A** **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16936** **Prep Batch: 16835**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.09268 | | mg/Kg | | 93 | 70 - 130 | 17 | 35 |
| Toluene | | | 0.100 | 0.09113 | | mg/Kg | | 91 | 70 - 130 | 15 | 35 |
| Ethylbenzene | | | 0.100 | 0.07502 | | mg/Kg | | 75 | 70 - 130 | 13 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1552 | | mg/Kg | | 78 | 70 - 130 | 19 | 35 |
| o-Xylene | | | 0.100 | 0.08369 | | mg/Kg | | 84 | 70 - 130 | 14 | 35 |

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

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

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 83 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 106 | | 70 - 130 |

**Lab Sample ID: 880-10171-21 MS** — **Client Sample ID: C72 2'**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 16936** — **Prep Batch: 16835**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U F1 F2 | 0.100 | 0.1088 | | mg/Kg | | 108 | 70 - 130 |
| Toluene | <0.00199 | U F1 | 0.100 | 0.1563 | F1 | mg/Kg | | 156 | 70 - 130 |
| Ethylbenzene | <0.00199 | U F1 F2 | 0.100 | 0.2656 | F1 | mg/Kg | | 265 | 70 - 130 |
| o-Xylene | <0.00199 | U F1 F2 | 0.100 | 0.06808 | F1 | mg/Kg | | 68 | 70 - 130 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 7901 | S1+ | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 84 | | 70 - 130 |

**Lab Sample ID: 880-10171-21 MSD** — **Client Sample ID: C72 2'**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 16936** — **Prep Batch: 16835**

| 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 | 0.0990 | 0.02553 | F1 F2 | mg/Kg | | 26 | 70 - 130 | 124 | 35 |
| Toluene | <0.00199 | U F1 | 0.0990 | 0.1470 | F1 | mg/Kg | | 148 | 70 - 130 | 6 | 35 |
| Ethylbenzene | <0.00199 | U F1 F2 | 0.0990 | 0.007526 | F1 F2 | mg/Kg | | 8 | 70 - 130 | 189 | 35 |
| o-Xylene | <0.00199 | U F1 F2 | 0.0990 | 0.01393 | F1 F2 | mg/Kg | | 14 | 70 - 130 | 132 | 35 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 2359 | S1+ | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 20 | S1- | 70 - 130 |

**Lab Sample ID: MB 880-16867/5-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 16967** — **Prep Batch: 16867**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | mg/Kg | | 01/17/22 07:30 | 01/17/22 10:53 | 1 |
| Toluene | <0.00200 | U | 0.00200 | mg/Kg | | 01/17/22 07:30 | 01/17/22 10:53 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | mg/Kg | | 01/17/22 07:30 | 01/17/22 10:53 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | mg/Kg | | 01/17/22 07:30 | 01/17/22 10:53 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | mg/Kg | | 01/17/22 07:30 | 01/17/22 10:53 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | mg/Kg | | 01/17/22 07:30 | 01/17/22 10:53 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 121 | | 70 - 130 | 01/17/22 07:30 | 01/17/22 10:53 | 1 |
| 1,4-Difluorobenzene (Surr) | 104 | | 70 - 130 | 01/17/22 07:30 | 01/17/22 10:53 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

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

**Lab Sample ID: MB 880-16969/5-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16967** **Prep Batch: 16969**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/17/22 08:51 | 01/17/22 22:29 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/17/22 08:51 | 01/17/22 22:29 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/17/22 08:51 | 01/17/22 22:29 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 01/17/22 08:51 | 01/17/22 22:29 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/17/22 08:51 | 01/17/22 22:29 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/17/22 08:51 | 01/17/22 22:29 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* | *01/17/22 08:51* | *01/17/22 22:29* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *01/17/22 08:51* | *01/17/22 22:29* | *1* |

**Lab Sample ID: LCS 880-16969/1-A** **Client Sample ID: Lab Control Sample**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16967** **Prep Batch: 16969**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.08505 | | mg/Kg | | 85 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.09888 | | mg/Kg | | 99 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.09639 | | mg/Kg | | 96 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.1945 | | mg/Kg | | 97 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.09185 | | mg/Kg | | 92 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *109* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* |

**Lab Sample ID: LCSD 880-16969/2-A** **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16967** **Prep Batch: 16969**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.08828 | | mg/Kg | | 88 | 70 - 130 | 4 | 35 |
| Toluene | | | 0.100 | 0.09806 | | mg/Kg | | 98 | 70 - 130 | 1 | 35 |
| Ethylbenzene | | | 0.100 | 0.1036 | | mg/Kg | | 104 | 70 - 130 | 7 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1962 | | mg/Kg | | 98 | 70 - 130 | 1 | 35 |
| o-Xylene | | | 0.100 | 0.09697 | | mg/Kg | | 97 | 70 - 130 | 5 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *111* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* |

**Lab Sample ID: 890-1829-A-11-B MS** **Client Sample ID: Matrix Spike**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16967** **Prep Batch: 16969**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U F2 F1 | 0.0996 | 0.1386 | F1 | mg/Kg | | 139 | 70 - 130 | | |
| Toluene | <0.00199 | U | 0.0996 | 0.07451 | | mg/Kg | | 75 | 70 - 130 | | |

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

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

**Lab Sample ID: 890-1829-A-11-B MS** **Client Sample ID: Matrix Spike**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16967** **Prep Batch: 16969**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.00199 | U F2 F1 | 0.0996 | 0.1329 | F1 | mg/Kg | | 133 | 70 - 130 |
| m,p-Xylenes | <0.00398 | U F2 F1 | 0.199 | 0.1695 | | mg/Kg | | 85 | 70 - 130 |
| o-Xylene | <0.00199 | U F2 F1 | 0.0996 | 0.2294 | F1 | mg/Kg | | 230 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *750* | *S1+* | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *27* | *S1-* | *70 - 130* |

**Lab Sample ID: 890-1829-A-11-E MSD** **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16967** **Prep Batch: 16969**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U F2 F1 | 0.0992 | 0.004455 | F2 F1 | mg/Kg | | 4 | 70 - 130 | 188 | 35 |
| Toluene | <0.00199 | U | 0.0992 | 0.07334 | | mg/Kg | | 74 | 70 - 130 | 2 | 35 |
| Ethylbenzene | <0.00199 | U F2 F1 | 0.0992 | 0.05943 | F2 F1 | mg/Kg | | 60 | 70 - 130 | 76 | 35 |
| m,p-Xylenes | <0.00398 | U F2 F1 | 0.198 | 0.06036 | F2 F1 | mg/Kg | | 30 | 70 - 130 | 95 | 35 |
| o-Xylene | <0.00199 | U F2 F1 | 0.0992 | 0.06548 | F2 F1 | mg/Kg | | 66 | 70 - 130 | 111 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *168* | *S1+* | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *94* | | *70 - 130* |

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

**Lab Sample ID: MB 880-16804/1-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16804**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | mg/Kg | | 01/13/22 16:27 | 01/16/22 21:08 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | mg/Kg | | 01/13/22 16:27 | 01/16/22 21:08 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | mg/Kg | | 01/13/22 16:27 | 01/16/22 21:08 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* | *01/13/22 16:27* | *01/16/22 21:08* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *01/13/22 16:27* | *01/16/22 21:08* | *1* |

**Lab Sample ID: LCS 880-16804/2-A** **Client Sample ID: Lab Control Sample**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16804**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1000 | 845.3 | | mg/Kg | | 85 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | 1000 | 999.8 | | mg/Kg | | 100 | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

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

**Lab Sample ID: LCS 880-16804/2-A** **Client Sample ID: Lab Control Sample**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16804**

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 114 | | 70 - 130 |
| o-Terphenyl (Surr) | 111 | | 70 - 130 |

**Lab Sample ID: LCSD 880-16804/3-A** **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16804**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 878.1 | | mg/Kg | | 88 | 70 - 130 | 4 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 981.3 | | mg/Kg | | 98 | 70 - 130 | 2 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 113 | | 70 - 130 |
| o-Terphenyl (Surr) | 106 | | 70 - 130 |

**Lab Sample ID: 880-10171-21 MS** **Client Sample ID: C72 2'**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16804**

| 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 | 996 | 1088 | | mg/Kg | | 106 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 996 | 1136 | | mg/Kg | | 114 | 70 - 130 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 94 | | 70 - 130 |
| o-Terphenyl (Surr) | 88 | | 70 - 130 |

**Lab Sample ID: 880-10171-21 MSD** **Client Sample ID: C72 2'**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16804**

| 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 | 1127 | | mg/Kg | | 110 | 70 - 130 | 3 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 999 | 1196 | | mg/Kg | | 120 | 70 - 130 | 5 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 98 | | 70 - 130 |
| o-Terphenyl (Surr) | 92 | | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

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

**Lab Sample ID: MB 880-16817/1-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16817**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 11:44 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 11:44 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/14/22 08:17 | 01/16/22 11:44 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 11:44* | *1* |
| *o-Terphenyl (Surr)* | *94* | | *70 - 130* | *01/14/22 08:17* | *01/16/22 11:44* | *1* |

**Lab Sample ID: LCS 880-16817/2-A** **Client Sample ID: Lab Control Sample**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16817**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 905.0 | | mg/Kg | | 90 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 959.6 | | mg/Kg | | 96 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *112* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *107* | | *70 - 130* |

**Lab Sample ID: LCSD 880-16817/3-A** **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16817**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 905.9 | | mg/Kg | | 91 | 70 - 130 | 0 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 956.9 | | mg/Kg | | 96 | 70 - 130 | 0 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *109* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *106* | | *70 - 130* |

**Lab Sample ID: 880-10171-1 MS** **Client Sample ID: C52 2'**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16817**

| 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 F2 | 996 | 848.3 | | mg/Kg | | 85 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 996 | 970.1 | | mg/Kg | | 97 | 70 - 130 | | |

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

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

**Lab Sample ID: 880-10171-1 MS** **Client Sample ID: C52 2'**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16817**

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 83 | | 70 - 130 |
| o-Terphenyl (Surr) | 73 | | 70 - 130 |

**Lab Sample ID: 880-10171-1 MSD** **Client Sample ID: C52 2'**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 16954** **Prep Batch: 16817**

| 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 F2 | 999 | 1042 | F2 | mg/Kg | | 104 | 70 - 130 | 21 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 999 | 1144 | | mg/Kg | | 114 | 70 - 130 | 16 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 91 | | 70 - 130 |
| o-Terphenyl (Surr) | 84 | | 70 - 130 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-16770/1-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Soluble**
**Analysis Batch: 16933**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 01/17/22 19:37 | 1 |

**Lab Sample ID: LCS 880-16770/2-A** **Client Sample ID: Lab Control Sample**
**Matrix: Solid** **Prep Type: Soluble**
**Analysis Batch: 16933**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 267.3 | | mg/Kg | | 107 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-16770/3-A** **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** **Prep Type: Soluble**
**Analysis Batch: 16933**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 267.4 | | mg/Kg | | 107 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 880-10171-1 MS** **Client Sample ID: C52 2'**
**Matrix: Solid** **Prep Type: Soluble**
**Analysis Batch: 16933**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 262 | | 248 | 510.0 | | mg/Kg | | 100 | 90 - 110 | | |

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 880-10171-1 MSD** — **Client Sample ID: C52 2'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16933**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 262 | | 248 | 509.4 | | mg/Kg | | 100 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 880-10171-11 MS** — **Client Sample ID: C62 2'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16933**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 504 | | 250 | 742.0 | | mg/Kg | | 96 | 90 - 110 |

**Lab Sample ID: 880-10171-11 MSD** — **Client Sample ID: C62 2'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16933**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 504 | | 253 | 753.0 | | mg/Kg | | 99 | 90 - 110 | 1 | 20 |

**Lab Sample ID: MB 880-16771/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16934**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 01/18/22 03:35 | 1 |

**Lab Sample ID: LCS 880-16771/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16934**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 250 | 264.8 | | mg/Kg | | 106 | 90 - 110 |

**Lab Sample ID: LCSD 880-16771/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16934**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 250 | 266.4 | | mg/Kg | | 107 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 880-10171-13 MS** — **Client Sample ID: C64 2'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16934**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 951 | | 252 | 1194 | | mg/Kg | | 97 | 90 - 110 |

**Lab Sample ID: 880-10171-13 MSD** — **Client Sample ID: C64 2'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16934**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 951 | | 252 | 1212 | | mg/Kg | | 104 | 90 - 110 | 2 | 20 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: 880-10171-23 MS** — **Client Sample ID: C74 2'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16934**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 439 | F1 | 248 | 714.0 | F1 | mg/Kg | | 111 | 90 - 110 |

**Lab Sample ID: 880-10171-23 MSD** — **Client Sample ID: C74 2'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16934**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 439 | F1 | 248 | 720.4 | F1 | mg/Kg | | 114 | 90 - 110 | 1 | 20 |

**Lab Sample ID: MB 880-16762/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16935**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 01/18/22 08:20 | 1 |

**Lab Sample ID: LCS 880-16762/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16935**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 250 | 270.7 | | mg/Kg | | 108 | 90 - 110 |

**Lab Sample ID: LCSD 880-16762/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16935**

| 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 |

**Lab Sample ID: 880-10171-32 MS** — **Client Sample ID: C83 2'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16935**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 888 | | 250 | 1135 | | mg/Kg | | 99 | 90 - 110 |

**Lab Sample ID: 880-10171-32 MSD** — **Client Sample ID: C83 2'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 16935**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 888 | | 250 | 1127 | | mg/Kg | | 96 | 90 - 110 | 1 | 20 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

## GC VOA

### Prep Batch: 16737

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-16737/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Prep Batch: 16740

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-1 | C52 2' | Total/NA | Solid | 5035 | |
| 880-10171-2 | C53 2' | Total/NA | Solid | 5035 | |
| 880-10171-3 | C54 2' | Total/NA | Solid | 5035 | |
| 880-10171-4 | C55 2' | Total/NA | Solid | 5035 | |
| 880-10171-5 | C56 2' | Total/NA | Solid | 5035 | |
| 880-10171-6 | C57 2' | Total/NA | Solid | 5035 | |
| 880-10171-7 | C58 2' | Total/NA | Solid | 5035 | |
| 880-10171-8 | C59 2' | Total/NA | Solid | 5035 | |
| 880-10171-9 | C60 2' | Total/NA | Solid | 5035 | |
| 880-10171-10 | C61 2' | Total/NA | Solid | 5035 | |
| 880-10171-11 | C62 2' | Total/NA | Solid | 5035 | |
| 880-10171-12 | C63 2' | Total/NA | Solid | 5035 | |
| 880-10171-13 | C64 2' | Total/NA | Solid | 5035 | |
| 880-10171-14 | C65 2' | Total/NA | Solid | 5035 | |
| 880-10171-15 | C66 2' | Total/NA | Solid | 5035 | |
| 880-10171-16 | C67 2' | Total/NA | Solid | 5035 | |
| 880-10171-17 | C68 2' | Total/NA | Solid | 5035 | |
| 880-10171-18 | C69 2' | Total/NA | Solid | 5035 | |
| 880-10171-19 | C70 2' | Total/NA | Solid | 5035 | |
| 880-10171-20 | C71 2' | Total/NA | Solid | 5035 | |
| MB 880-16740/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-16740/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-16740/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-10171-1 MS | C52 2' | Total/NA | Solid | 5035 | |
| 880-10171-1 MSD | C52 2' | Total/NA | Solid | 5035 | |

### Prep Batch: 16834

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-16834/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Prep Batch: 16835

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-21 | C72 2' | Total/NA | Solid | 5035 | |
| 880-10171-22 | C73 2' | Total/NA | Solid | 5035 | |
| 880-10171-23 | C74 2' | Total/NA | Solid | 5035 | |
| 880-10171-24 | C75 2' | Total/NA | Solid | 5035 | |
| 880-10171-25 | C76 2' | Total/NA | Solid | 5035 | |
| 880-10171-26 | C77 2' | Total/NA | Solid | 5035 | |
| 880-10171-27 | C78 2' | Total/NA | Solid | 5035 | |
| 880-10171-28 | C79 2' | Total/NA | Solid | 5035 | |
| 880-10171-29 | C80 2' | Total/NA | Solid | 5035 | |
| 880-10171-30 | C81 2' | Total/NA | Solid | 5035 | |
| 880-10171-31 | C82 2' | Total/NA | Solid | 5035 | |
| 880-10171-32 | C83 2' | Total/NA | Solid | 5035 | |
| MB 880-16835/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-16835/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-16835/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## GC VOA (Continued)

### Prep Batch: 16835 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-21 MS | C72 2' | Total/NA | Solid | 5035 | |
| 880-10171-21 MSD | C72 2' | Total/NA | Solid | 5035 | |

### Analysis Batch: 16837

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-1 | C52 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-2 | C53 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-3 | C54 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-4 | C55 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-5 | C56 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-6 | C57 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-7 | C58 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-8 | C59 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-9 | C60 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-10 | C61 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-11 | C62 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-12 | C63 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-13 | C64 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-14 | C65 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-15 | C66 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-16 | C67 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-17 | C68 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-18 | C69 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-19 | C70 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-20 | C71 2' | Total/NA | Solid | 8021B | 16740 |
| MB 880-16737/5-A | Method Blank | Total/NA | Solid | 8021B | 16737 |
| MB 880-16740/5-A | Method Blank | Total/NA | Solid | 8021B | 16740 |
| LCS 880-16740/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 16740 |
| LCSD 880-16740/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 16740 |
| 880-10171-1 MS | C52 2' | Total/NA | Solid | 8021B | 16740 |
| 880-10171-1 MSD | C52 2' | Total/NA | Solid | 8021B | 16740 |

### Prep Batch: 16867

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-16867/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Analysis Batch: 16936

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-21 | C72 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-22 | C73 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-23 | C74 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-24 | C75 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-25 | C76 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-26 | C77 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-27 | C78 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-28 | C79 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-29 | C80 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-30 | C81 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-31 | C82 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-32 | C83 2' | Total/NA | Solid | 8021B | 16835 |
| MB 880-16834/5-A | Method Blank | Total/NA | Solid | 8021B | 16834 |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## GC VOA (Continued)

### Analysis Batch: 16936 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-16835/5-A | Method Blank | Total/NA | Solid | 8021B | 16835 |
| LCS 880-16835/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 16835 |
| LCSD 880-16835/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 16835 |
| 880-10171-21 MS | C72 2' | Total/NA | Solid | 8021B | 16835 |
| 880-10171-21 MSD | C72 2' | Total/NA | Solid | 8021B | 16835 |

### Analysis Batch: 16967

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-16867/5-A | Method Blank | Total/NA | Solid | 8021B | 16867 |
| MB 880-16969/5-A | Method Blank | Total/NA | Solid | 8021B | 16969 |
| LCS 880-16969/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 16969 |
| LCSD 880-16969/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 16969 |
| 890-1829-A-11-B MS | Matrix Spike | Total/NA | Solid | 8021B | 16969 |
| 890-1829-A-11-E MSD | Matrix Spike Duplicate | Total/NA | Solid | 8021B | 16969 |

### Prep Batch: 16969

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-16969/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-16969/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-16969/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 890-1829-A-11-B MS | Matrix Spike | Total/NA | Solid | 5035 | |
| 890-1829-A-11-E MSD | Matrix Spike Duplicate | Total/NA | Solid | 5035 | |

### Analysis Batch: 17403

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-1 | C52 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-2 | C53 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-3 | C54 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-4 | C55 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-5 | C56 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-6 | C57 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-7 | C58 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-8 | C59 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-9 | C60 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-10 | C61 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-11 | C62 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-12 | C63 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-13 | C64 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-14 | C65 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-15 | C66 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-16 | C67 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-17 | C68 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-18 | C69 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-19 | C70 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-20 | C71 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-21 | C72 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-22 | C73 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-23 | C74 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-24 | C75 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-25 | C76 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-26 | C77 2' | Total/NA | Solid | Total BTEX | |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## GC VOA (Continued)

### Analysis Batch: 17403 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-27 | C78 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-28 | C79 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-29 | C80 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-30 | C81 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-31 | C82 2' | Total/NA | Solid | Total BTEX | |
| 880-10171-32 | C83 2' | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Prep Batch: 16804

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-21 | C72 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-22 | C73 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-23 | C74 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-24 | C75 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-25 | C76 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-26 | C77 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-27 | C78 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-28 | C79 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-29 | C80 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-30 | C81 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-31 | C82 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-32 | C83 2' | Total/NA | Solid | 8015NM Prep | |
| MB 880-16804/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-16804/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-16804/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-10171-21 MS | C72 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-21 MSD | C72 2' | Total/NA | Solid | 8015NM Prep | |

### Prep Batch: 16817

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-1 | C52 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-2 | C53 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-3 | C54 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-4 | C55 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-5 | C56 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-6 | C57 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-7 | C58 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-8 | C59 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-9 | C60 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-10 | C61 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-11 | C62 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-12 | C63 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-13 | C64 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-14 | C65 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-15 | C66 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-16 | C67 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-17 | C68 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-18 | C69 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-19 | C70 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-20 | C71 2' | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## GC Semi VOA (Continued)

### Prep Batch: 16817 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-16817/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-16817/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-16817/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-10171-1 MS | C52 2' | Total/NA | Solid | 8015NM Prep | |
| 880-10171-1 MSD | C52 2' | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 16954

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-1 | C52 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-2 | C53 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-3 | C54 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-4 | C55 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-5 | C56 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-6 | C57 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-7 | C58 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-8 | C59 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-9 | C60 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-10 | C61 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-11 | C62 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-12 | C63 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-13 | C64 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-14 | C65 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-15 | C66 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-16 | C67 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-17 | C68 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-18 | C69 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-19 | C70 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-20 | C71 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-21 | C72 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-22 | C73 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-23 | C74 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-24 | C75 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-25 | C76 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-26 | C77 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-27 | C78 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-28 | C79 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-29 | C80 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-30 | C81 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-31 | C82 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-32 | C83 2' | Total/NA | Solid | 8015B NM | 16804 |
| MB 880-16804/1-A | Method Blank | Total/NA | Solid | 8015B NM | 16804 |
| MB 880-16817/1-A | Method Blank | Total/NA | Solid | 8015B NM | 16817 |
| LCS 880-16804/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 16804 |
| LCS 880-16817/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 16817 |
| LCSD 880-16804/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 16804 |
| LCSD 880-16817/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-1 MS | C52 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-1 MSD | C52 2' | Total/NA | Solid | 8015B NM | 16817 |
| 880-10171-21 MS | C72 2' | Total/NA | Solid | 8015B NM | 16804 |
| 880-10171-21 MSD | C72 2' | Total/NA | Solid | 8015B NM | 16804 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

## GC Semi VOA

### Analysis Batch: 17022

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-1 | C52 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-2 | C53 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-3 | C54 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-4 | C55 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-5 | C56 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-6 | C57 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-7 | C58 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-8 | C59 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-9 | C60 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-10 | C61 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-11 | C62 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-12 | C63 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-13 | C64 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-14 | C65 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-15 | C66 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-16 | C67 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-17 | C68 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-18 | C69 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-19 | C70 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-20 | C71 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-21 | C72 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-22 | C73 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-23 | C74 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-24 | C75 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-25 | C76 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-26 | C77 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-27 | C78 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-28 | C79 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-29 | C80 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-30 | C81 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-31 | C82 2' | Total/NA | Solid | 8015 NM | |
| 880-10171-32 | C83 2' | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 16762

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-32 | C83 2' | Soluble | Solid | DI Leach | |
| MB 880-16762/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-16762/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-16762/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-10171-32 MS | C83 2' | Soluble | Solid | DI Leach | |
| 880-10171-32 MSD | C83 2' | Soluble | Solid | DI Leach | |

### Leach Batch: 16770

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-1 | C52 2' | Soluble | Solid | DI Leach | |
| 880-10171-2 | C53 2' | Soluble | Solid | DI Leach | |
| 880-10171-3 | C54 2' | Soluble | Solid | DI Leach | |
| 880-10171-4 | C55 2' | Soluble | Solid | DI Leach | |
| 880-10171-5 | C56 2' | Soluble | Solid | DI Leach | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

## HPLC/IC (Continued)

### Leach Batch: 16770 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-6 | C57 2' | Soluble | Solid | DI Leach | |
| 880-10171-7 | C58 2' | Soluble | Solid | DI Leach | |
| 880-10171-8 | C59 2' | Soluble | Solid | DI Leach | |
| 880-10171-9 | C60 2' | Soluble | Solid | DI Leach | |
| 880-10171-10 | C61 2' | Soluble | Solid | DI Leach | |
| 880-10171-11 | C62 2' | Soluble | Solid | DI Leach | |
| 880-10171-12 | C63 2' | Soluble | Solid | DI Leach | |
| MB 880-16770/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-16770/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-16770/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-10171-1 MS | C52 2' | Soluble | Solid | DI Leach | |
| 880-10171-1 MSD | C52 2' | Soluble | Solid | DI Leach | |
| 880-10171-11 MS | C62 2' | Soluble | Solid | DI Leach | |
| 880-10171-11 MSD | C62 2' | Soluble | Solid | DI Leach | |

### Leach Batch: 16771

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-13 | C64 2' | Soluble | Solid | DI Leach | |
| 880-10171-14 | C65 2' | Soluble | Solid | DI Leach | |
| 880-10171-15 | C66 2' | Soluble | Solid | DI Leach | |
| 880-10171-16 | C67 2' | Soluble | Solid | DI Leach | |
| 880-10171-17 | C68 2' | Soluble | Solid | DI Leach | |
| 880-10171-18 | C69 2' | Soluble | Solid | DI Leach | |
| 880-10171-19 | C70 2' | Soluble | Solid | DI Leach | |
| 880-10171-20 | C71 2' | Soluble | Solid | DI Leach | |
| 880-10171-21 | C72 2' | Soluble | Solid | DI Leach | |
| 880-10171-22 | C73 2' | Soluble | Solid | DI Leach | |
| 880-10171-23 | C74 2' | Soluble | Solid | DI Leach | |
| 880-10171-24 | C75 2' | Soluble | Solid | DI Leach | |
| 880-10171-25 | C76 2' | Soluble | Solid | DI Leach | |
| 880-10171-26 | C77 2' | Soluble | Solid | DI Leach | |
| 880-10171-27 | C78 2' | Soluble | Solid | DI Leach | |
| 880-10171-28 | C79 2' | Soluble | Solid | DI Leach | |
| 880-10171-29 | C80 2' | Soluble | Solid | DI Leach | |
| 880-10171-30 | C81 2' | Soluble | Solid | DI Leach | |
| 880-10171-31 | C82 2' | Soluble | Solid | DI Leach | |
| MB 880-16771/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-16771/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-16771/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-10171-13 MS | C64 2' | Soluble | Solid | DI Leach | |
| 880-10171-13 MSD | C64 2' | Soluble | Solid | DI Leach | |
| 880-10171-23 MS | C74 2' | Soluble | Solid | DI Leach | |
| 880-10171-23 MSD | C74 2' | Soluble | Solid | DI Leach | |

### Analysis Batch: 16933

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-1 | C52 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-2 | C53 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-3 | C54 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-4 | C55 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-5 | C56 2' | Soluble | Solid | 300.0 | 16770 |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## HPLC/IC (Continued)

### Analysis Batch: 16933 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-6 | C57 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-7 | C58 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-8 | C59 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-9 | C60 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-10 | C61 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-11 | C62 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-12 | C63 2' | Soluble | Solid | 300.0 | 16770 |
| MB 880-16770/1-A | Method Blank | Soluble | Solid | 300.0 | 16770 |
| LCS 880-16770/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 16770 |
| LCSD 880-16770/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 16770 |
| 880-10171-1 MS | C52 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-1 MSD | C52 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-11 MS | C62 2' | Soluble | Solid | 300.0 | 16770 |
| 880-10171-11 MSD | C62 2' | Soluble | Solid | 300.0 | 16770 |

### Analysis Batch: 16934

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-13 | C64 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-14 | C65 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-15 | C66 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-16 | C67 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-17 | C68 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-18 | C69 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-19 | C70 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-20 | C71 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-21 | C72 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-22 | C73 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-23 | C74 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-24 | C75 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-25 | C76 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-26 | C77 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-27 | C78 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-28 | C79 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-29 | C80 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-30 | C81 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-31 | C82 2' | Soluble | Solid | 300.0 | 16771 |
| MB 880-16771/1-A | Method Blank | Soluble | Solid | 300.0 | 16771 |
| LCS 880-16771/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 16771 |
| LCSD 880-16771/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 16771 |
| 880-10171-13 MS | C64 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-13 MSD | C64 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-23 MS | C74 2' | Soluble | Solid | 300.0 | 16771 |
| 880-10171-23 MSD | C74 2' | Soluble | Solid | 300.0 | 16771 |

### Analysis Batch: 16935

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-32 | C83 2' | Soluble | Solid | 300.0 | 16762 |
| MB 880-16762/1-A | Method Blank | Soluble | Solid | 300.0 | 16762 |
| LCS 880-16762/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 16762 |
| LCSD 880-16762/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 16762 |
| 880-10171-32 MS | C83 2' | Soluble | Solid | 300.0 | 16762 |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## HPLC/IC (Continued)

### Analysis Batch: 16935 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-10171-32 MSD | C83 2' | Soluble | Solid | 300.0 | 16762 |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

## Client Sample ID: C52 2'

**Date Collected: 01/12/22 08:00**
**Date Received: 01/13/22 08:25**

**Lab Sample ID: 880-10171-1**
**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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 16:26 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 12:46 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16933 | 01/17/22 20:00 | CH | XEN MID |

## Client Sample ID: C53 2'

**Date Collected: 01/12/22 08:02**
**Date Received: 01/13/22 08:25**

**Lab Sample ID: 880-10171-2**
**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 | | | 5.02 g | 5 mL | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 16:47 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 13:49 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16933 | 01/17/22 20:22 | CH | XEN MID |

## Client Sample ID: C54 2'

**Date Collected: 01/12/22 08:04**
**Date Received: 01/13/22 08:25**

**Lab Sample ID: 880-10171-3**
**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 | | | 4.99 g | 5 mL | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 17:07 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 14:10 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16933 | 01/17/22 20:30 | CH | XEN MID |

## Client Sample ID: C55 2'

**Date Collected: 01/12/22 08:06**
**Date Received: 01/13/22 08:25**

**Lab Sample ID: 880-10171-4**
**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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 17:27 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

## Client Sample ID: C55 2'

**Date Collected: 01/12/22 08:06**
**Date Received: 01/13/22 08:25**

**Lab Sample ID: 880-10171-4**
**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 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 14:30 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16933 | 01/17/22 20:37 | CH | XEN MID |

## Client Sample ID: C56 2'

**Date Collected: 01/12/22 08:08**
**Date Received: 01/13/22 08:25**

**Lab Sample ID: 880-10171-5**
**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 | | | 4.98 g | 5 mL | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 17:48 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 14:51 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16933 | 01/17/22 20:45 | CH | XEN MID |

## Client Sample ID: C57 2'

**Date Collected: 01/12/22 08:10**
**Date Received: 01/13/22 08:25**

**Lab Sample ID: 880-10171-6**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.95 g | 5 mL | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 18:08 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 15:12 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16933 | 01/17/22 21:07 | CH | XEN MID |

## Client Sample ID: C58 2'

**Date Collected: 01/12/22 08:12**
**Date Received: 01/13/22 08:25**

**Lab Sample ID: 880-10171-7**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.99 g | 5 mL | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 18:29 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 15:33 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C58 2' — Lab Sample ID: 880-10171-7

**Date Collected: 01/12/22 08:12** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16933 | 01/17/22 21:15 | CH | XEN MID |

## Client Sample ID: C59 2' — Lab Sample ID: 880-10171-8

**Date Collected: 01/12/22 08:14** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 18:49 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 15:54 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16933 | 01/17/22 21:22 | CH | XEN MID |

## Client Sample ID: C60 2' — Lab Sample ID: 880-10171-9

**Date Collected: 01/12/22 08:16** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 19:10 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 16:15 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16933 | 01/17/22 21:30 | CH | XEN MID |

## Client Sample ID: C61 2' — Lab Sample ID: 880-10171-10

**Date Collected: 01/12/22 08:18** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 19:30 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 16:36 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16933 | 01/17/22 21:38 | CH | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C62 2' — Lab Sample ID: 880-10171-11

**Date Collected: 01/12/22 08:20** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 21:20 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 17:18 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16933 | 01/17/22 21:45 | CH | XEN MID |

## Client Sample ID: C63 2' — Lab Sample ID: 880-10171-12

**Date Collected: 01/12/22 08:22** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 21:41 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 17:39 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 16770 | 01/13/22 12:19 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16933 | 01/17/22 22:08 | CH | XEN MID |

## Client Sample ID: C64 2' — Lab Sample ID: 880-10171-13

**Date Collected: 01/12/22 08:24** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 22:01 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 18:00 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 04:00 | CH | XEN MID |

## Client Sample ID: C65 2' — Lab Sample ID: 880-10171-14

**Date Collected: 01/12/22 08:26** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 22:22 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |

Eurofins Midland

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

## Client Sample ID: C65 2'

**Date Collected: 01/12/22 08:26**
**Date Received: 01/13/22 08:25**

## Lab Sample ID: 880-10171-14

**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 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 18:21 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16934 | 01/18/22 04:25 | CH | XEN MID |

## Client Sample ID: C66 2'

**Date Collected: 01/12/22 08:28**
**Date Received: 01/13/22 08:25**

## Lab Sample ID: 880-10171-15

**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 | | | 5.00 g | 5 mL | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 22:42 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 18:42 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 04:33 | CH | XEN MID |

## Client Sample ID: C67 2'

**Date Collected: 01/12/22 08:30**
**Date Received: 01/13/22 08:25**

## Lab Sample ID: 880-10171-16

**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 | | | 5.01 g | 5 mL | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 23:02 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 19:03 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 04:42 | CH | XEN MID |

## Client Sample ID: C68 2'

**Date Collected: 01/12/22 08:32**
**Date Received: 01/13/22 08:25**

## Lab Sample ID: 880-10171-17

**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 | | | 5.05 g | 5 mL | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 23:23 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 19:23 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C68 2' — Lab Sample ID: 880-10171-17

**Date Collected: 01/12/22 08:32** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 04:50 | CH | XEN MID |

## Client Sample ID: C69 2' — Lab Sample ID: 880-10171-18

**Date Collected: 01/12/22 08:34** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/15/22 23:43 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 19:44 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 05:15 | CH | XEN MID |

## Client Sample ID: C70 2' — Lab Sample ID: 880-10171-19

**Date Collected: 01/12/22 08:36** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/16/22 00:04 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 20:06 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 05:24 | CH | XEN MID |

## Client Sample ID: C71 2' — Lab Sample ID: 880-10171-20

**Date Collected: 01/12/22 08:38** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16740 | 01/13/22 10:34 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16837 | 01/16/22 00:24 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16817 | 01/14/22 08:17 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 20:26 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 05:32 | CH | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C72 2'
**Lab Sample ID: 880-10171-21**
**Date Collected: 01/12/22 08:40** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/16/22 18:33 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 22:11 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 05:40 | CH | XEN MID |

## Client Sample ID: C73 2'
**Lab Sample ID: 880-10171-22**
**Date Collected: 01/12/22 08:42** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/16/22 19:00 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 23:13 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16934 | 01/18/22 05:49 | CH | XEN MID |

## Client Sample ID: C74 2'
**Lab Sample ID: 880-10171-23**
**Date Collected: 01/12/22 08:44** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/16/22 19:27 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 23:34 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 05:57 | CH | XEN MID |

## Client Sample ID: C75 2'
**Lab Sample ID: 880-10171-24**
**Date Collected: 01/12/22 08:46** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/16/22 19:54 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

## Client Sample ID: C75 2'

**Date Collected: 01/12/22 08:46**
**Date Received: 01/13/22 08:25**

## Lab Sample ID: 880-10171-24

**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 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/16/22 23:54 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 06:22 | CH | XEN MID |

## Client Sample ID: C76 2'

**Date Collected: 01/12/22 08:48**
**Date Received: 01/13/22 08:25**

## Lab Sample ID: 880-10171-25

**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 | | | 5.02 g | 5 mL | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/16/22 20:20 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/17/22 00:15 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 06:30 | CH | XEN MID |

## Client Sample ID: C77 2'

**Date Collected: 01/12/22 08:50**
**Date Received: 01/13/22 08:25**

## Lab Sample ID: 880-10171-26

**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 | | | 5.00 g | 5 mL | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/16/22 20:47 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/17/22 00:36 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 06:55 | CH | XEN MID |

## Client Sample ID: C78 2'

**Date Collected: 01/12/22 08:52**
**Date Received: 01/13/22 08:25**

## Lab Sample ID: 880-10171-27

**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 | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/16/22 21:14 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/17/22 00:56 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C78 2' — Lab Sample ID: 880-10171-27

**Date Collected: 01/12/22 08:52** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 07:04 | CH | XEN MID |

## Client Sample ID: C79 2' — Lab Sample ID: 880-10171-28

**Date Collected: 01/12/22 08:54** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/16/22 21:41 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:12 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/17/22 01:17 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 07:12 | CH | XEN MID |

## Client Sample ID: C80 2' — Lab Sample ID: 880-10171-29

**Date Collected: 01/12/22 08:56** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/16/22 22:08 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:32 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/17/22 01:37 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16934 | 01/18/22 07:20 | CH | XEN MID |

## Client Sample ID: C81 2' — Lab Sample ID: 880-10171-30

**Date Collected: 01/12/22 08:58** **Matrix: Solid**
**Date Received: 01/13/22 08:25**

| 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 | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/16/22 22:35 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:32 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/17/22 01:57 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16934 | 01/18/22 07:29 | CH | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

## Client Sample ID: C82 2'

**Date Collected: 01/12/22 09:00**
**Date Received: 01/13/22 08:25**

## Lab Sample ID: 880-10171-31

**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 | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/17/22 00:21 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:32 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/17/22 02:38 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 16771 | 01/13/22 12:23 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 16934 | 01/18/22 07:37 | CH | XEN MID |

## Client Sample ID: C83 2'

**Date Collected: 01/12/22 09:02**
**Date Received: 01/13/22 08:25**

## Lab Sample ID: 880-10171-32

**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 | 16835 | 01/14/22 09:21 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 16936 | 01/17/22 00:48 | MR | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 17403 | 01/20/22 16:32 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 17022 | 01/17/22 12:45 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 16804 | 01/13/22 16:27 | DM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 16954 | 01/17/22 02:58 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 16762 | 01/13/22 12:10 | SC | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 16935 | 01/18/22 08:43 | 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: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

## 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: 880-10171-1
Project/Site: Culebre Bluff SE 532 Fed Com 3 SDG: 19-0180-07

| 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: Culebre Bluff SE 532 Fed Com 3

Job ID: 880-10171-1
SDG: 19-0180-07

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 880-10171-1 | C52 2' | Solid | 01/12/22 08:00 | 01/13/22 08:25 |
| 880-10171-2 | C53 2' | Solid | 01/12/22 08:02 | 01/13/22 08:25 |
| 880-10171-3 | C54 2' | Solid | 01/12/22 08:04 | 01/13/22 08:25 |
| 880-10171-4 | C55 2' | Solid | 01/12/22 08:06 | 01/13/22 08:25 |
| 880-10171-5 | C56 2' | Solid | 01/12/22 08:08 | 01/13/22 08:25 |
| 880-10171-6 | C57 2' | Solid | 01/12/22 08:10 | 01/13/22 08:25 |
| 880-10171-7 | C58 2' | Solid | 01/12/22 08:12 | 01/13/22 08:25 |
| 880-10171-8 | C59 2' | Solid | 01/12/22 08:14 | 01/13/22 08:25 |
| 880-10171-9 | C60 2' | Solid | 01/12/22 08:16 | 01/13/22 08:25 |
| 880-10171-10 | C61 2' | Solid | 01/12/22 08:18 | 01/13/22 08:25 |
| 880-10171-11 | C62 2' | Solid | 01/12/22 08:20 | 01/13/22 08:25 |
| 880-10171-12 | C63 2' | Solid | 01/12/22 08:22 | 01/13/22 08:25 |
| 880-10171-13 | C64 2' | Solid | 01/12/22 08:24 | 01/13/22 08:25 |
| 880-10171-14 | C65 2' | Solid | 01/12/22 08:26 | 01/13/22 08:25 |
| 880-10171-15 | C66 2' | Solid | 01/12/22 08:28 | 01/13/22 08:25 |
| 880-10171-16 | C67 2' | Solid | 01/12/22 08:30 | 01/13/22 08:25 |
| 880-10171-17 | C68 2' | Solid | 01/12/22 08:32 | 01/13/22 08:25 |
| 880-10171-18 | C69 2' | Solid | 01/12/22 08:34 | 01/13/22 08:25 |
| 880-10171-19 | C70 2' | Solid | 01/12/22 08:36 | 01/13/22 08:25 |
| 880-10171-20 | C71 2' | Solid | 01/12/22 08:38 | 01/13/22 08:25 |
| 880-10171-21 | C72 2' | Solid | 01/12/22 08:40 | 01/13/22 08:25 |
| 880-10171-22 | C73 2' | Solid | 01/12/22 08:42 | 01/13/22 08:25 |
| 880-10171-23 | C74 2' | Solid | 01/12/22 08:44 | 01/13/22 08:25 |
| 880-10171-24 | C75 2' | Solid | 01/12/22 08:46 | 01/13/22 08:25 |
| 880-10171-25 | C76 2' | Solid | 01/12/22 08:48 | 01/13/22 08:25 |
| 880-10171-26 | C77 2' | Solid | 01/12/22 08:50 | 01/13/22 08:25 |
| 880-10171-27 | C78 2' | Solid | 01/12/22 08:52 | 01/13/22 08:25 |
| 880-10171-28 | C79 2' | Solid | 01/12/22 08:54 | 01/13/22 08:25 |
| 880-10171-29 | C80 2' | Solid | 01/12/22 08:56 | 01/13/22 08:25 |
| 880-10171-30 | C81 2' | Solid | 01/12/22 08:58 | 01/13/22 08:25 |
| 880-10171-31 | C82 2' | Solid | 01/12/22 09:00 | 01/13/22 08:25 |
| 880-10171-32 | C83 2' | Solid | 01/12/22 09:02 | 01/13/22 08:25 |

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No. 2383

10171 CHAIN-OF-CUSTODY

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

Data Reported to

DATE 1/13/22 PAGE 1 OF 3

PO# LAB WORK ORDER#

PROJECT LOCATION OR NAME Culebra Bluff SE 532 Fed Com 3

LAI PROJECT # 19-0180-07 COLLECTOR JR

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 ☐ By 8021B | 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 ☐ By E300 | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C52 | 2' | | 1/12/22 | 8:00 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | 202 |
| C53 | 2' | | 1/12/22 | 8:02 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C54 | 2' | | 1/12/22 | 8:04 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C55 | 2' | | 1/12/22 | 8:06 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C56 | 2' | | 1/12/22 | 8:08 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C57 | 2' | | 1/12/22 | 8:10 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C58 | 2' | | 1/12/22 | 8:12 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C59 | 2' | | 1/12/22 | 8:14 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C60 | 2' | | 1/12/22 | 8:16 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C61 | 2' | | 1/12/22 | 8:18 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C62 | 2' | | 1/12/22 | 8:20 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C63 | 2' | | 1/12/22 | 8:22 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C64 | 2' | | 1/12/22 | 8:24 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C65 | 2' | | 1/12/22 | 8:26 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| C66 | 2' | | 1/12 | 8:28 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

880-10171 Chain of Custody

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) |
|---|---|---|
| | 1/13/22 0808 | |
| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) |
| | 1/13/22 0825 | |
| 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

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1/20/2022

Page 684 of 1002

No. 2384

10171

# CHAIN-OF-CUSTODY

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

Data Reported to

DATE 1/13/22 PAGE 2 OF 3

PO# LAB WORK ORDER#

PROJECT LOCATION OR NAME Culebra Bluff SE 532 Fed Com 3

LAI PROJECT # 19-01180-07 COLLECTOR JR

TRRP report? ☐ Yes ☒ No

TIME ZONE Time zone/State: MST/NM

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

| Field Sample I D | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ NaOH | ICE | UNPRESERVED | ANALYSES: BTEX MTBE / BTEX 8021B | TRPH 418.1 | GASOLINE MOD 8015 / TPH 1005 / TPH 1006 | 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 / DW 200.8 / TCLP | RCI / TOX / FLASHPOINT | TDS / TSS / % MOISTURE | pH / HEXAVALENT CHROMIUM / CYANIDE | EXPLOSIVES / PECHLORATE | CHLORIDE / ANIONS / ALKALINITY | BTEX 8260 | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C67 4' | | 1/12/22 | 8:30 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | X | | |
| C68 4' | | 1/12/22 | 8:32 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C69 4' | | 1/12/22 | 8:34 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C70 4' | | 1/12/22 | 8:36 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C71 4' | | 1/12/22 | 8:38 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C72 4' | | 1/12/22 | 8:40 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C73 4' | | 1/12/22 | 8:42 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C74 4' | | 1/12/22 | 8:44 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C75 4' | | 1/12/22 | 8:46 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C76 4' | | 1/12/22 | 8:48 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C77 4' | | 1/12/22 | 8:50 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C78 4' | | 1/12/22 | 8:52 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C79 4' | | 1/12/22 | 8:54 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C80 4' | | 1/12/22 | 8:56 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| C81 4' | | 1/12/22 | 8:58 | S | 1 | | | | X | | X | | X | X | | | | | | | | | | | | | | | X | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY (Signature) DATE/TIME 1/13/22 0808 RECEIVED BY (Signature)

RELINQUISHED BY (Signature) DATE/TIME 1/13/22 0825 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 11:20:33 AM
Page 66 of 68
Released to Imaging: 6/25/2024 3:21:21 PM

Page 685 of 1002



No. 2385

10171

# CHAIN-OF-CUSTODY

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

Data Reported to

DATE 1/13/22 PAGE 3 OF 3

PO# LAB WORK ORDER#

PROJECT LOCATION OR NAME Culebra Bluff SE 532 Fed Com 3

LAI PROJECT # 19-0180-07 COLLECTOR JR

TRRP report? ☐ Yes ☒ No

TIME ZONE Time zone/State: MST/NM

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

| Field Sample I D | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ | NaOH | ICE | UNPRESERVED | ANALYSES: BTEX 8021 B 8260 B | 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 | TDS | TSS | FLASHPOINT | pH | % MOISTURE | HEXAVALENT CHROMIUM | CYANIDE | EXPLOSIVES | PECHLORATE | CHLORIDES | ANIONS | ALKALINITY | BTEX E 360 | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CB2 4' | | 1/12/22 | 9:00 | S | 1 | | | | | X | | X | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CB3 4' | | 1/12/22 | 9:02 | S | 1 | | | | | X | | X | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY (Signature) DATE/TIME 1/13/22 0808 RECEIVED BY: (Signature)

RELINQUISHED BY (Signature) DATE/TIME 1/13/22 0825 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

1/20/2022



Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

# Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-10171-1
SDG Number: 19-0180-07

**Login Number: 10171**
**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: 880-12957-1
Laboratory Sample Delivery Group: 19-0180-07
Client Project/Site: Culebra Bluff SE 5 32

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

Attn: Mr. Mark J Larson

Holly Taylor

*Authorized for release by:*
*4/7/2022 2:29:58 PM*

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

LINKS

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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: Culebra Bluff SE 5 32

Laboratory Job ID: 880-12957-1
SDG: 19-0180-07

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Eurofins Midland
4/7/2022

# Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| F1 | MS and/or MSD recovery exceeds control limits. |
| 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.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Job ID: 880-12957-1

### Laboratory: Eurofins Midland

**Narrative**

**Job Narrative**
**880-12957-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 3/28/2022 1:58 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.1º C.

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

**GC Semi VOA**
Method 8015B NM: Surrogate recovery for the following samples were outside control limits: C-86 (880-12957-4), C-59 (880-12957-9) and (MB 880-22521/1-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**
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.



Released to Imaging: 6/25/2024 3:21:21 PM

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-3

**Date Collected: 03/25/22 12:02**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-1

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.00202 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:56 | 1 |
| Toluene | <0.00202 | U F1 | 0.00202 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:56 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:56 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:56 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:56 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 15:56* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 15:56* | *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 | | | 04/01/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 12:55 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 12:55 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 12:55 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *104* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 12:55* | *1* |
| *o-Terphenyl (Surr)* | *115* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 12:55* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **451** | | 4.99 | | mg/Kg | | | 04/06/22 02:04 | 1 |

## Client Sample ID: C-5

**Date Collected: 03/25/22 10:00**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-2

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:17 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:17 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:17 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:17 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:17 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:17 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *137* | *S1+* | *70 - 130* | *03/31/22 12:00* | *03/31/22 16:17* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 16:17* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-5

**Date Collected: 03/25/22 10:00**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-2

**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 | | | 04/01/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 13:58 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 13:58 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 13:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *105* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 13:58* | *1* |
| *o-Terphenyl (Surr)* | *115* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 13:58* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **943** | | 24.8 | | mg/Kg | | | 04/06/22 02:13 | 5 |

## Client Sample ID: C-4

**Date Collected: 03/25/22 10:02**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-3

**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 | | 03/31/22 12:00 | 03/31/22 16:38 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:38 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:38 | 1 |
| m,p-Xylenes | <0.00397 | U | 0.00397 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:38 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:38 | 1 |
| Xylenes, Total | <0.00397 | U | 0.00397 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:38 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *112* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 16:38* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 16:38* | *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 | | | 04/01/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 14:18 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 14:18 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-4

**Date Collected: 03/25/22 10:02**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-3

**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 | | 03/29/22 08:56 | 03/29/22 14:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *106* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 14:18* | *1* |
| *o-Terphenyl (Surr)* | *116* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 14:18* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **995** | | 24.8 | | mg/Kg | | | 04/06/22 02:22 | 5 |

## Client Sample ID: C-86

**Date Collected: 03/25/22 10:32**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-4

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:59 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:59 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:59 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:59 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:59 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 16:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *130* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 16:59* | *1* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 16:59* | *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 | | | 04/01/22 15:18 | 1 |

### Method: 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 | | | 03/30/22 10:27 | 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 | <49.7 | U | 49.7 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 14:39 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.7 | U | 49.7 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 14:39 | 1 |
| Oll Range Organics (Over C28-C36) | <49.7 | U | 49.7 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 14:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *119* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 14:39* | *1* |
| *o-Terphenyl (Surr)* | *131* | *S1+* | *70 - 130* | *03/29/22 08:56* | *03/29/22 14:39* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1660** | | 24.9 | | mg/Kg | | | 04/06/22 02:31 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-87

**Date Collected: 03/25/22 10:34**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-5

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:20 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:20 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:20 | 1 |
| m,p-Xylenes | <0.00397 | U | 0.00397 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:20 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:20 | 1 |
| Xylenes, Total | <0.00397 | U | 0.00397 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *133* | *S1+* | *70 - 130* | *03/31/22 12:00* | *03/31/22 17:20* | *1* |
| *1,4-Difluorobenzene (Surr)* | *94* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 17:20* | *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 | | | 04/01/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 15:00 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 15:00 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 15:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *104* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 15:00* | *1* |
| *o-Terphenyl (Surr)* | *125* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 15:00* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **3030** | | 49.9 | | mg/Kg | | | 04/06/22 02:39 | 10 |

## Client Sample ID: C-88

**Date Collected: 03/25/22 10:36**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-6

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:40 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:40 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:40 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:40 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:40 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 17:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *116* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 17:40* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 17:40* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-88

**Date Collected: 03/25/22 10:36**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-6

**Matrix: Solid**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 04/01/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 15:21 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 15:21 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 15:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *106* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 15:21* | *1* |
| *o-Terphenyl (Surr)* | *118* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 15:21* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1590** | | 25.0 | | mg/Kg | | | 04/06/22 03:06 | 5 |

## Client Sample ID: C-64

**Date Collected: 03/24/22 11:02**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-7

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:01 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:01 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:01 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:01 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:01 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:01 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *138* | *S1+* | *70 - 130* | *03/31/22 12:00* | *03/31/22 18:01* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 18:01* | *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 | | | 04/01/22 15:18 | 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 | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 15:42 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 15:42 | 1 |

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# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-64

**Date Collected: 03/24/22 11:02**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-7

**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) | <49.8 | U | 49.8 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 15:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *102* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 15:42* | *1* |
| *o-Terphenyl (Surr)* | *111* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 15:42* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **348** | | 4.95 | | mg/Kg | | | 04/06/22 03:14 | 1 |

## Client Sample ID: C-66

**Date Collected: 03/24/22 11:06**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-8

**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 | | 03/31/22 12:00 | 03/31/22 18:22 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:22 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:22 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:22 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:22 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 18:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *118* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 18:22* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 18:22* | *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 | | | 04/01/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 16:03 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 16:03 | 1 |
| Oll Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 16:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 16:03* | *1* |
| *o-Terphenyl (Surr)* | *114* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 16:03* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **364** | | 5.00 | | mg/Kg | | | 04/06/22 19:16 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-59

**Date Collected: 03/24/22 10:30**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-9

**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 | | 03/31/22 12:00 | 03/31/22 20:28 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:28 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:28 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:28 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:28 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *106* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 20:28* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 20:28* | *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 | | | 04/01/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 16:24 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 16:24 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 16:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *118* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 16:24* | *1* |
| *o-Terphenyl (Surr)* | *131* | *S1+* | *70 - 130* | *03/29/22 08:56* | *03/29/22 16:24* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **519** | | 5.05 | | mg/Kg | | | 04/06/22 19:25 | 1 |

## Client Sample ID: C-85

**Date Collected: 03/24/22 10:40**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-10

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:48 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:48 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:48 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:48 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:48 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 20:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 20:48* | *1* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 20:48* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-85

**Date Collected: 03/24/22 10:40**
**Date Received: 03/28/22 13:58**

**Lab Sample ID: 880-12957-10**
**Matrix: Solid**

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 04/01/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 16:45 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 16:45 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 16:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *104* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 16:45* | *1* |
| *o-Terphenyl (Surr)* | *113* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 16:45* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **874** | | 4.99 | | mg/Kg | | | 04/06/22 19:34 | 1 |

## Client Sample ID: C-60

**Date Collected: 03/24/22 10:31**
**Date Received: 03/28/22 13:58**

**Lab Sample ID: 880-12957-11**
**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 | | 03/31/22 12:00 | 03/31/22 21:09 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:09 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:09 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:09 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:09 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 21:09* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 21:09* | *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 | | | 04/01/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 17:27 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 17:27 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-60

**Date Collected: 03/24/22 10:31**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-11

**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 | | 03/29/22 08:56 | 03/29/22 17:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 17:27* | *1* |
| *o-Terphenyl (Surr)* | *112* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 17:27* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **934** | | 24.9 | | mg/Kg | | | 04/06/22 19:42 | 5 |

## Client Sample ID: C-61

**Date Collected: 03/24/22 10:32**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-12

**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 | | 03/31/22 12:00 | 03/31/22 21:30 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:30 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:30 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:30 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:30 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:30 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 21:30* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 21:30* | *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 | | | 04/01/22 15:18 | 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 | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 17:48 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 17:48 | 1 |
| Oil Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 17:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *104* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 17:48* | *1* |
| *o-Terphenyl (Surr)* | *115* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 17:48* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **295** | | 4.99 | | mg/Kg | | | 04/06/22 19:51 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-84

**Date Collected: 03/24/22 11:02**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-13

**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 | | 03/31/22 12:00 | 03/31/22 21:51 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:51 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:51 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:51 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:51 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 21:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *118* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 21:51* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 21:51* | *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 | | | 04/01/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 03/30/22 10:27 | 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 | | 03/29/22 08:56 | 03/29/22 18:09 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 18:09 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/29/22 08:56 | 03/29/22 18:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 18:09* | *1* |
| *o-Terphenyl (Surr)* | *117* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 18:09* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **738** | | 4.95 | | mg/Kg | | | 04/06/22 20:00 | 1 |

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## 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) |
| 880-12957-1 | C-3 | 104 | 106 |
| 880-12957-1 MS | C-3 | 103 | 111 |
| 880-12957-1 MSD | C-3 | 100 | 108 |
| 880-12957-2 | C-5 | 137 S1+ | 98 |
| 880-12957-3 | C-4 | 112 | 98 |
| 880-12957-4 | C-86 | 130 | 95 |
| 880-12957-5 | C-87 | 133 S1+ | 94 |
| 880-12957-6 | C-88 | 116 | 104 |
| 880-12957-7 | C-64 | 138 S1+ | 98 |
| 880-12957-8 | C-66 | 118 | 107 |
| 880-12957-9 | C-59 | 106 | 100 |
| 880-12957-10 | C-85 | 114 | 101 |
| 880-12957-11 | C-60 | 115 | 106 |
| 880-12957-12 | C-61 | 115 | 104 |
| 880-12957-13 | C-84 | 118 | 105 |
| LCS 880-22658/1-A | Lab Control Sample | 97 | 105 |
| LCSD 880-22658/2-A | Lab Control Sample Dup | 97 | 107 |
| MB 880-22658/5-A | Method Blank | 118 | 100 |

**Surrogate Legend**

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

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | 1CO1 | OTPH1 |
| Lab Sample ID | Client Sample ID | (70-130) | (70-130) |
| 880-12957-1 | C-3 | 104 | 115 |
| 880-12957-1 MS | C-3 | 113 | 117 |
| 880-12957-1 MSD | C-3 | 111 | 116 |
| 880-12957-2 | C-5 | 105 | 115 |
| 880-12957-3 | C-4 | 106 | 116 |
| 880-12957-4 | C-86 | 119 | 131 S1+ |
| 880-12957-5 | C-87 | 104 | 125 |
| 880-12957-6 | C-88 | 106 | 118 |
| 880-12957-7 | C-64 | 102 | 111 |
| 880-12957-8 | C-66 | 103 | 114 |
| 880-12957-9 | C-59 | 118 | 131 S1+ |
| 880-12957-10 | C-85 | 104 | 113 |
| 880-12957-11 | C-60 | 103 | 112 |
| 880-12957-12 | C-61 | 104 | 115 |
| 880-12957-13 | C-84 | 103 | 117 |

**Surrogate Legend**

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

# Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-12957-1
Project/Site: Culebra Bluff SE 5 32 SDG: 19-0180-07

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | 1CO2 (70-130) | OTPH2 (70-130) | | | | | | | | |
| LCS 880-22521/2-A | Lab Control Sample | 111 | 125 | | | | | | | | |
| LCSD 880-22521/3-A | Lab Control Sample Dup | 115 | 127 | | | | | | | | |
| MB 880-22521/1-A | Method Blank | 123 | 141 S1+ | | | | | | | | |

**Surrogate Legend**

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

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

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

### Lab Sample ID: MB 880-22658/5-A
**Matrix: Solid**
**Analysis Batch: 22719**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 22658**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:35 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:35 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:35 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:35 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:35 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 03/31/22 12:00 | 03/31/22 15:35 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *118* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 15:35* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *03/31/22 12:00* | *03/31/22 15:35* | *1* |

### Lab Sample ID: LCS 880-22658/1-A
**Matrix: Solid**
**Analysis Batch: 22719**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 22658**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1059 | | mg/Kg | | 106 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.08868 | | mg/Kg | | 89 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.09566 | | mg/Kg | | 96 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.2009 | | mg/Kg | | 100 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.09872 | | mg/Kg | | 99 | 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 880-22658/2-A
**Matrix: Solid**
**Analysis Batch: 22719**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 22658**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1028 | | mg/Kg | | 103 | 70 - 130 | 3 | 35 |
| Toluene | | | 0.100 | 0.08247 | | mg/Kg | | 82 | 70 - 130 | 7 | 35 |
| Ethylbenzene | | | 0.100 | 0.08947 | | mg/Kg | | 89 | 70 - 130 | 7 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1885 | | mg/Kg | | 94 | 70 - 130 | 6 | 35 |
| o-Xylene | | | 0.100 | 0.09437 | | mg/Kg | | 94 | 70 - 130 | 5 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *97* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* |

### Lab Sample ID: 880-12957-1 MS
**Matrix: Solid**
**Analysis Batch: 22719**

**Client Sample ID: C-3**
**Prep Type: Total/NA**
**Prep Batch: 22658**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.0992 | 0.08872 | | mg/Kg | | 89 | 70 - 130 | | |
| Toluene | <0.00202 | U F1 | 0.0992 | 0.07307 | | mg/Kg | | 73 | 70 - 130 | | |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-12957-1 MS**
**Matrix: Solid**
**Analysis Batch: 22719**

**Client Sample ID: C-3**
**Prep Type: Total/NA**
**Prep Batch: 22658**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.00202 | U | 0.0992 | 0.07727 | | mg/Kg | | 78 | 70 - 130 |
| m,p-Xylenes | <0.00404 | U | 0.198 | 0.1629 | | mg/Kg | | 82 | 70 - 130 |
| o-Xylene | <0.00202 | U | 0.0992 | 0.08143 | | mg/Kg | | 82 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *111* | | *70 - 130* |

**Lab Sample ID: 880-12957-1 MSD**
**Matrix: Solid**
**Analysis Batch: 22719**

**Client Sample ID: C-3**
**Prep Type: Total/NA**
**Prep Batch: 22658**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U | 0.0996 | 0.08510 | | mg/Kg | | 85 | 70 - 130 | 4 | 35 |
| Toluene | <0.00202 | U F1 | 0.0996 | 0.06941 | F1 | mg/Kg | | 69 | 70 - 130 | 5 | 35 |
| Ethylbenzene | <0.00202 | U | 0.0996 | 0.07530 | | mg/Kg | | 76 | 70 - 130 | 3 | 35 |
| m,p-Xylenes | <0.00404 | U | 0.199 | 0.1580 | | mg/Kg | | 79 | 70 - 130 | 3 | 35 |
| o-Xylene | <0.00202 | U | 0.0996 | 0.07836 | | mg/Kg | | 79 | 70 - 130 | 4 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *108* | | *70 - 130* |

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

**Lab Sample ID: MB 880-22521/1-A**
**Matrix: Solid**
**Analysis Batch: 22514**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 22521**

| 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 | | 03/29/22 08:56 | 03/29/22 11:53 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | mg/Kg | | 03/29/22 08:56 | 03/29/22 11:53 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | mg/Kg | | 03/29/22 08:56 | 03/29/22 11:53 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *123* | | *70 - 130* | *03/29/22 08:56* | *03/29/22 11:53* | *1* |
| *o-Terphenyl (Surr)* | *141* | *S1+* | *70 - 130* | *03/29/22 08:56* | *03/29/22 11:53* | *1* |

**Lab Sample ID: LCS 880-22521/2-A**
**Matrix: Solid**
**Analysis Batch: 22514**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 22521**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1000 | 942.8 | | mg/Kg | | 94 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | 1000 | 1012 | | mg/Kg | | 101 | 70 - 130 |

Eurofins Midland

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

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

**Lab Sample ID: LCS 880-22521/2-A**
**Matrix: Solid**
**Analysis Batch: 22514**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 22521**

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 111 | | 70 - 130 |
| o-Terphenyl (Surr) | 125 | | 70 - 130 |

**Lab Sample ID: LCSD 880-22521/3-A**
**Matrix: Solid**
**Analysis Batch: 22514**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 22521**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 916.3 | | mg/Kg | | 92 | 70 - 130 | 3 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 1036 | | mg/Kg | | 104 | 70 - 130 | 2 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 115 | | 70 - 130 |
| o-Terphenyl (Surr) | 127 | | 70 - 130 |

**Lab Sample ID: 880-12957-1 MS**
**Matrix: Solid**
**Analysis Batch: 22514**

**Client Sample ID: C-3**
**Prep Type: Total/NA**
**Prep Batch: 22521**

| 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 | 1259 | | mg/Kg | | 123 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 999 | 810.8 | | mg/Kg | | 79 | 70 - 130 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 113 | | 70 - 130 |
| o-Terphenyl (Surr) | 117 | | 70 - 130 |

**Lab Sample ID: 880-12957-1 MSD**
**Matrix: Solid**
**Analysis Batch: 22514**

**Client Sample ID: C-3**
**Prep Type: Total/NA**
**Prep Batch: 22521**

| 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 | 1279 | | mg/Kg | | 125 | 70 - 130 | 2 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 999 | 807.0 | | mg/Kg | | 78 | 70 - 130 | 0 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 111 | | 70 - 130 |
| o-Terphenyl (Surr) | 116 | | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-22797/1-A**
**Matrix: Solid**
**Analysis Batch: 22917**

**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 | | | 04/04/22 10:37 | 1 |

**Lab Sample ID: LCS 880-22797/2-A**
**Matrix: Solid**
**Analysis Batch: 22917**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 249.9 | | mg/Kg | | 100 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-22797/3-A**
**Matrix: Solid**
**Analysis Batch: 22917**

**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 | 250.0 | | mg/Kg | | 100 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 880-12957-5 MS**
**Matrix: Solid**
**Analysis Batch: 22917**

**Client Sample ID: C-87**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3030 | | 2500 | 5723 | | mg/Kg | | 108 | 90 - 110 | | |

**Lab Sample ID: 880-12957-5 MSD**
**Matrix: Solid**
**Analysis Batch: 22917**

**Client Sample ID: C-87**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3030 | | 2500 | 5538 | | mg/Kg | | 101 | 90 - 110 | 3 | 20 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## GC VOA

### Prep Batch: 22658

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-12957-1 | C-3 | Total/NA | Solid | 5035 | |
| 880-12957-2 | C-5 | Total/NA | Solid | 5035 | |
| 880-12957-3 | C-4 | Total/NA | Solid | 5035 | |
| 880-12957-4 | C-86 | Total/NA | Solid | 5035 | |
| 880-12957-5 | C-87 | Total/NA | Solid | 5035 | |
| 880-12957-6 | C-88 | Total/NA | Solid | 5035 | |
| 880-12957-7 | C-64 | Total/NA | Solid | 5035 | |
| 880-12957-8 | C-66 | Total/NA | Solid | 5035 | |
| 880-12957-9 | C-59 | Total/NA | Solid | 5035 | |
| 880-12957-10 | C-85 | Total/NA | Solid | 5035 | |
| 880-12957-11 | C-60 | Total/NA | Solid | 5035 | |
| 880-12957-12 | C-61 | Total/NA | Solid | 5035 | |
| 880-12957-13 | C-84 | Total/NA | Solid | 5035 | |
| MB 880-22658/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-22658/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-22658/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-12957-1 MS | C-3 | Total/NA | Solid | 5035 | |
| 880-12957-1 MSD | C-3 | Total/NA | Solid | 5035 | |

### Analysis Batch: 22719

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-12957-1 | C-3 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-2 | C-5 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-3 | C-4 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-4 | C-86 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-5 | C-87 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-6 | C-88 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-7 | C-64 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-8 | C-66 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-9 | C-59 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-10 | C-85 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-11 | C-60 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-12 | C-61 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-13 | C-84 | Total/NA | Solid | 8021B | 22658 |
| MB 880-22658/5-A | Method Blank | Total/NA | Solid | 8021B | 22658 |
| LCS 880-22658/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 22658 |
| LCSD 880-22658/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 22658 |
| 880-12957-1 MS | C-3 | Total/NA | Solid | 8021B | 22658 |
| 880-12957-1 MSD | C-3 | Total/NA | Solid | 8021B | 22658 |

### Analysis Batch: 22830

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-12957-1 | C-3 | Total/NA | Solid | Total BTEX | |
| 880-12957-2 | C-5 | Total/NA | Solid | Total BTEX | |
| 880-12957-3 | C-4 | Total/NA | Solid | Total BTEX | |
| 880-12957-4 | C-86 | Total/NA | Solid | Total BTEX | |
| 880-12957-5 | C-87 | Total/NA | Solid | Total BTEX | |
| 880-12957-6 | C-88 | Total/NA | Solid | Total BTEX | |
| 880-12957-7 | C-64 | Total/NA | Solid | Total BTEX | |
| 880-12957-8 | C-66 | Total/NA | Solid | Total BTEX | |
| 880-12957-9 | C-59 | Total/NA | Solid | Total BTEX | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## GC VOA (Continued)

### Analysis Batch: 22830 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-12957-10 | C-85 | Total/NA | Solid | Total BTEX | |
| 880-12957-11 | C-60 | Total/NA | Solid | Total BTEX | |
| 880-12957-12 | C-61 | Total/NA | Solid | Total BTEX | |
| 880-12957-13 | C-84 | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Analysis Batch: 22514

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-12957-1 | C-3 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-2 | C-5 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-3 | C-4 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-4 | C-86 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-5 | C-87 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-6 | C-88 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-7 | C-64 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-8 | C-66 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-9 | C-59 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-10 | C-85 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-11 | C-60 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-12 | C-61 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-13 | C-84 | Total/NA | Solid | 8015B NM | 22521 |
| MB 880-22521/1-A | Method Blank | Total/NA | Solid | 8015B NM | 22521 |
| LCS 880-22521/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 22521 |
| LCSD 880-22521/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-1 MS | C-3 | Total/NA | Solid | 8015B NM | 22521 |
| 880-12957-1 MSD | C-3 | Total/NA | Solid | 8015B NM | 22521 |

### Prep Batch: 22521

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-12957-1 | C-3 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-2 | C-5 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-3 | C-4 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-4 | C-86 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-5 | C-87 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-6 | C-88 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-7 | C-64 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-8 | C-66 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-9 | C-59 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-10 | C-85 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-11 | C-60 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-12 | C-61 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-13 | C-84 | Total/NA | Solid | 8015NM Prep | |
| MB 880-22521/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-22521/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-22521/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-12957-1 MS | C-3 | Total/NA | Solid | 8015NM Prep | |
| 880-12957-1 MSD | C-3 | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## GC Semi VOA

### Analysis Batch: 22625

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-12957-1 | C-3 | Total/NA | Solid | 8015 NM | |
| 880-12957-2 | C-5 | Total/NA | Solid | 8015 NM | |
| 880-12957-3 | C-4 | Total/NA | Solid | 8015 NM | |
| 880-12957-4 | C-86 | Total/NA | Solid | 8015 NM | |
| 880-12957-5 | C-87 | Total/NA | Solid | 8015 NM | |
| 880-12957-6 | C-88 | Total/NA | Solid | 8015 NM | |
| 880-12957-7 | C-64 | Total/NA | Solid | 8015 NM | |
| 880-12957-8 | C-66 | Total/NA | Solid | 8015 NM | |
| 880-12957-9 | C-59 | Total/NA | Solid | 8015 NM | |
| 880-12957-10 | C-85 | Total/NA | Solid | 8015 NM | |
| 880-12957-11 | C-60 | Total/NA | Solid | 8015 NM | |
| 880-12957-12 | C-61 | Total/NA | Solid | 8015 NM | |
| 880-12957-13 | C-84 | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 22797

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-12957-1 | C-3 | Soluble | Solid | DI Leach | |
| 880-12957-2 | C-5 | Soluble | Solid | DI Leach | |
| 880-12957-3 | C-4 | Soluble | Solid | DI Leach | |
| 880-12957-4 | C-86 | Soluble | Solid | DI Leach | |
| 880-12957-5 | C-87 | Soluble | Solid | DI Leach | |
| 880-12957-6 | C-88 | Soluble | Solid | DI Leach | |
| 880-12957-7 | C-64 | Soluble | Solid | DI Leach | |
| 880-12957-8 | C-66 | Soluble | Solid | DI Leach | |
| 880-12957-9 | C-59 | Soluble | Solid | DI Leach | |
| 880-12957-10 | C-85 | Soluble | Solid | DI Leach | |
| 880-12957-11 | C-60 | Soluble | Solid | DI Leach | |
| 880-12957-12 | C-61 | Soluble | Solid | DI Leach | |
| 880-12957-13 | C-84 | Soluble | Solid | DI Leach | |
| MB 880-22797/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-22797/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-22797/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-12957-5 MS | C-87 | Soluble | Solid | DI Leach | |
| 880-12957-5 MSD | C-87 | Soluble | Solid | DI Leach | |

### Analysis Batch: 22917

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-12957-1 | C-3 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-2 | C-5 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-3 | C-4 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-4 | C-86 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-5 | C-87 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-6 | C-88 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-7 | C-64 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-8 | C-66 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-9 | C-59 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-10 | C-85 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-11 | C-60 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-12 | C-61 | Soluble | Solid | 300.0 | 22797 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## HPLC/IC (Continued)

### Analysis Batch: 22917 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-12957-13 | C-84 | Soluble | Solid | 300.0 | 22797 |
| MB 880-22797/1-A | Method Blank | Soluble | Solid | 300.0 | 22797 |
| LCS 880-22797/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 22797 |
| LCSD 880-22797/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 22797 |
| 880-12957-5 MS | C-87 | Soluble | Solid | 300.0 | 22797 |
| 880-12957-5 MSD | C-87 | Soluble | Solid | 300.0 | 22797 |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-3
**Date Collected: 03/25/22 12:02**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-1
**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 | | | 4.95 g | 5 mL | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 15:56 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 12:55 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 22917 | 04/06/22 02:04 | SC | XEN MID |

## Client Sample ID: C-5
**Date Collected: 03/25/22 10:00**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-2
**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 | | | 5.01 g | 5 mL | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 16:17 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 13:58 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 22917 | 04/06/22 02:13 | SC | XEN MID |

## Client Sample ID: C-4
**Date Collected: 03/25/22 10:02**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-3
**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 | | | 5.04 g | 5 mL | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 16:38 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 14:18 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 22917 | 04/06/22 02:22 | SC | XEN MID |

## Client Sample ID: C-86
**Date Collected: 03/25/22 10:32**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-4
**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 | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 16:59 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-86
**Date Collected: 03/25/22 10:32**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-4
**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 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.06 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 14:39 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 22917 | 04/06/22 02:31 | SC | XEN MID |

## Client Sample ID: C-87
**Date Collected: 03/25/22 10:34**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-5
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.04 g | 5 mL | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 17:20 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 15:00 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 10 | | | 22917 | 04/06/22 02:39 | SC | XEN MID |

## Client Sample ID: C-88
**Date Collected: 03/25/22 10:36**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-6
**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 | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 17:40 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 15:21 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 22917 | 04/06/22 03:06 | SC | XEN MID |

## Client Sample ID: C-64
**Date Collected: 03/24/22 11:02**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-7
**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 | | | 5.01 g | 5 mL | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 18:01 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 15:42 | AJ | XEN MID |

Eurofins Midland

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-64
**Date Collected: 03/24/22 11:02**
**Date Received: 03/28/22 13:58**

**Lab Sample ID: 880-12957-7**
**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 | | | 5.05 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 22917 | 04/06/22 03:14 | SC | XEN MID |

## Client Sample ID: C-66
**Date Collected: 03/24/22 11:06**
**Date Received: 03/28/22 13:58**

**Lab Sample ID: 880-12957-8**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.97 g | 5 mL | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 18:22 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 16:03 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 22917 | 04/06/22 19:16 | SC | XEN MID |

## Client Sample ID: C-59
**Date Collected: 03/24/22 10:30**
**Date Received: 03/28/22 13:58**

**Lab Sample ID: 880-12957-9**
**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 | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 20:28 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 16:24 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 22917 | 04/06/22 19:25 | SC | XEN MID |

## Client Sample ID: C-85
**Date Collected: 03/24/22 10:40**
**Date Received: 03/28/22 13:58**

**Lab Sample ID: 880-12957-10**
**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 | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 20:48 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 16:45 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 22917 | 04/06/22 19:34 | SC | XEN MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

## Client Sample ID: C-60
**Date Collected: 03/24/22 10:31**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-11
**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 | | | 5.02 g | 5 mL | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 21:09 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 17:27 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 5 | | | 22917 | 04/06/22 19:42 | SC | XEN MID |

## Client Sample ID: C-61
**Date Collected: 03/24/22 10:32**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-12
**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 | | | 5.01 g | 5 mL | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 21:30 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.05 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 17:48 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 22917 | 04/06/22 19:51 | SC | XEN MID |

## Client Sample ID: C-84
**Date Collected: 03/24/22 11:02**
**Date Received: 03/28/22 13:58**

## Lab Sample ID: 880-12957-13
**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 | | | 4.99 g | 5 mL | 22658 | 03/31/22 12:00 | KL | XEN MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 22719 | 03/31/22 21:51 | KL | XEN MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 22830 | 04/01/22 15:18 | AJ | XEN MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 22625 | 03/30/22 10:27 | AJ | XEN MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 22521 | 03/29/22 08:56 | AM | XEN MID |
| Total/NA | Analysis | 8015B NM | | 1 | | | 22514 | 03/29/22 18:09 | AJ | XEN MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 22797 | 04/01/22 11:51 | CH | XEN MID |
| Soluble | Analysis | 300.0 | | 1 | | | 22917 | 04/06/22 20:00 | 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: 880-12957-1
Project/Site: Culebra Bluff SE 5 32 SDG: 19-0180-07

## 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: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

| 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: Culebra Bluff SE 5 32

Job ID: 880-12957-1
SDG: 19-0180-07

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 880-12957-1 | C-3 | Solid | 03/25/22 12:02 | 03/28/22 13:58 |
| 880-12957-2 | C-5 | Solid | 03/25/22 10:00 | 03/28/22 13:58 |
| 880-12957-3 | C-4 | Solid | 03/25/22 10:02 | 03/28/22 13:58 |
| 880-12957-4 | C-86 | Solid | 03/25/22 10:32 | 03/28/22 13:58 |
| 880-12957-5 | C-87 | Solid | 03/25/22 10:34 | 03/28/22 13:58 |
| 880-12957-6 | C-88 | Solid | 03/25/22 10:36 | 03/28/22 13:58 |
| 880-12957-7 | C-64 | Solid | 03/24/22 11:02 | 03/28/22 13:58 |
| 880-12957-8 | C-66 | Solid | 03/24/22 11:06 | 03/28/22 13:58 |
| 880-12957-9 | C-59 | Solid | 03/24/22 10:30 | 03/28/22 13:58 |
| 880-12957-10 | C-85 | Solid | 03/24/22 10:40 | 03/28/22 13:58 |
| 880-12957-11 | C-60 | Solid | 03/24/22 10:31 | 03/28/22 13:58 |
| 880-12957-12 | C-61 | Solid | 03/24/22 10:32 | 03/28/22 13:58 |
| 880-12957-13 | C-84 | Solid | 03/24/22 11:02 | 03/28/22 13:58 |

Page 718 of 1002



No. 2512

12957

# CHAIN-OF-CUSTODY

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

DATE: 3/28/2022 PAGE 1 OF 1

PO# _____ LAB WORK ORDER#: _____

PROJECT LOCATION OR NAME: Culebra Bluff SE S 32

LAI PROJECT #: 19-0180-07 COLLECTOR: JR

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 ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ CYANIDE ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDES ☐ ANIONS ☐ ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-3 | | 3/25/22 | 12:02 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | X | | |
| C-5 | | 3/25/22 | 10:00 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-4 | | | 10:02 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-86 | | | 10:32 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-87 | | | 10:34 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-88 | | | 10:36 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-64 | | 3/24/22 | 11:02 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-66 | | | 11:06 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-59 | | | 10:30 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-85 | | 3/24/22 | 10:40 | | | | | | | | X | | X | X | X | | | | | | | | | | | | X | | |
| C-60 | | | 10:31 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-61 | | | 10:32 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-84 | | | 11:02 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

880-12957 Chain of Custody

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) |
|---|---|---|
| | 3/28/22 13:58 | |
| 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 02.1 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☑ HAND DELIVERED



Received by OCD: 5/8/2024 11:20:33 AM
Released to Imaging: 6/25/2024 3:21:21 PM

# Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-12957-1
SDG Number: 19-0180-07

**Login Number: 12957**
**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 11/22/2022 5:42:00 PM

## JOB DESCRIPTION

Culebra Bluff SE 5 32
SDG NUMBER 19-0180-07

## JOB NUMBER

880-21717-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

Released to Imaging: 6/25/2024 3:21:21 PM

my EOL

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Laboratory Job ID: 880-21717-1
SDG: 19-0180-07

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# Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

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

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| 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: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Job ID: 880-21717-1

### Laboratory: Eurofins Midland

**Narrative**

**Job Narrative**
**880-21717-1**

**Receipt**
The samples were received on 11/17/2022 10:33 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 -4.1º C.

**Receipt Exceptions**
The following samples were received and analyzed from a bulk soil jar: C-90, 5.5 (880-21717-1), C-91, 5.5 (880-21717-2), C-92 , 7' (880-21717-3), C-93 , 7' (880-21717-4), C-94 , 7' (880-21717-5), C-95 , 7' (880-21717-6), C-96 , 7' (880-21717-7), C-97 , 7' (880-21717-8), C-98 , 7' (880-21717-9), C-99 , 7' (880-21717-10), C-100 , 7' (880-21717-11), C-101 , 7' (880-21717-12), C-102 , 7' (880-21717-13), C-103 , 7' (880-21717-14), C-104 , 7' (880-21717-15), C-105 , 7' (880-21717-16), C-106 , 7' (880-21717-17), C-107 , 7' (880-21717-18), C-108 , 7' (880-21717-19), C-109 , 7' (880-21717-20), C-110 , 7' (880-21717-21), C-111 , 7' (880-21717-22), C-112 , 7' (880-21717-23), C-113 , 7' (880-21717-24), C-114 , 7' (880-21717-25), C-115 , 7' (880-21717-26), SW-2 , 0-5' (880-21717-27), SW-3 , 0-5' (880-21717-28), SW-4 , 0-7' (880-21717-29), SW-5 , 0-7' (880-21717-30), SW-6 , 0-7' (880-21717-31), SW-7 , 0-5' (880-21717-32) and SW-8 , 0-7' (880-21717-33).

**GC VOA**
Method 8021B: Surrogate recovery for the following samples were outside control limits: C-102 , 7' (880-21717-13). 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-105 , 7' (880-21717-16). 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-107 , 7' (880-21717-18). 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-111 , 7' (880-21717-22). 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-113 , 7' (880-21717-24), C-114 , 7' (880-21717-25), C-115 , 7' (880-21717-26), SW-3 , 0-5' (880-21717-28) and SW-5 , 0-7' (880-21717-30). 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-90, 5.5 (880-21717-1). 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-94 , 7' (880-21717-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-39791 and analytical batch 880-39800 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: LCSD biased high. Since only an acceptable LCS is required per the method, the data has been qualified and reported. (LCSD 880-39791/2-A)

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

**GC Semi VOA**
Method 8015B NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-39882/2-A) and (LCSD 880-39882/3-A). Evidence of matrix interferences is not obvious.

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: (880-21715-A-1-H MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

# Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Job ID: 880-21717-1 (Continued)

### Laboratory: Eurofins Midland (Continued)

Method 8015B NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-39882 and analytical batch 880-39958 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015B NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-39882 and analytical batch 880-39958 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.

**General Chemistry**
Method 300.0: The matrix spike (MS) recoveries for preparation batch 880-39793, 880-39793 and 880-39793 and analytical batch 880-39855 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

The associated samples are: C-90, 5.5 (880-21717-1), C-91, 5.5 (880-21717-2), C-92 , 7' (880-21717-3), C-93 , 7' (880-21717-4), C-94 , 7' (880-21717-5), C-95 , 7' (880-21717-6), C-96 , 7' (880-21717-7), C-97 , 7' (880-21717-8), C-98 , 7' (880-21717-9), C-99 , 7' (880-21717-10) and (880-21717-A-1-C MS).

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-39796 and 880-39796 and analytical batch 880-39854 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300.0: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for preparation batch 880-39795 and analytical batch 880-39857. The associated laboratory control sample (LCS) met acceptance criteria.

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

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

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



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# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-90, 5.5

**Date Collected: 11/16/22 15:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-1

**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 | | 11/17/22 11:50 | 11/17/22 19:25 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 19:25 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 19:25 | 1 |
| m,p-Xylenes | <0.00399 | U *+ | 0.00399 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 19:25 | 1 |
| o-Xylene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 19:25 | 1 |
| Xylenes, Total | <0.00399 | U *+ | 0.00399 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 19:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *139* | *S1+* | *70 - 130* | *11/17/22 11:50* | *11/17/22 19:25* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 19:25* | *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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 11:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 11:07 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 11:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 11:07* | *1* |
| *o-Terphenyl (Surr)* | *114* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 11:07* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1050** | **F1** | 25.1 | | mg/Kg | | | 11/18/22 08:42 | 5 |

## Client Sample ID: C-91, 5.5

**Date Collected: 11/16/22 15:35**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-2

**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 | | 11/17/22 11:50 | 11/17/22 19:51 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 19:51 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 19:51 | 1 |
| m,p-Xylenes | <0.00398 | U *+ | 0.00398 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 19:51 | 1 |
| o-Xylene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 19:51 | 1 |
| Xylenes, Total | <0.00398 | U *+ | 0.00398 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 19:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *130* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 19:51* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 19:51* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-91, 5.5

**Date Collected: 11/16/22 15:35**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-2

**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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 12:12 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 12:12 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 12:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *99* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 12:12* | *1* |
| *o-Terphenyl (Surr)* | *107* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 12:12* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **593** | | 4.99 | | mg/Kg | | | 11/18/22 08:59 | 1 |

## Client Sample ID: C-92 , 7'

**Date Collected: 11/16/22 15:40**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-3

**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 | | 11/17/22 11:50 | 11/17/22 21:34 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 21:34 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 21:34 | 1 |
| m,p-Xylenes | <0.00402 | U *+ | 0.00402 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 21:34 | 1 |
| o-Xylene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 21:34 | 1 |
| Xylenes, Total | <0.00402 | U *+ | 0.00402 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 21:34 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *116* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 21:34* | *1* |
| *1,4-Difluorobenzene (Surr)* | *111* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 21:34* | *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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 12:35 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 12:35 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-92 , 7'

**Date Collected: 11/16/22 15:40**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-3

**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) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 12:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 12:35* | *1* |
| *o-Terphenyl (Surr)* | *111* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 12:35* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **799** | | 4.95 | | mg/Kg | | | 11/18/22 09:05 | 1 |

## Client Sample ID: C-93 , 7'

**Date Collected: 11/16/22 15:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-4

**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 | | 11/17/22 11:50 | 11/17/22 22:00 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:00 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:00 | 1 |
| m,p-Xylenes | <0.00398 | U *+ | 0.00398 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:00 | 1 |
| o-Xylene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:00 | 1 |
| Xylenes, Total | <0.00398 | U *+ | 0.00398 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *112* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 22:00* | *1* |
| *1,4-Difluorobenzene (Surr)* | *90* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 22:00* | *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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 12:56 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 12:56 | 1 |
| Oll Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 12:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *100* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 12:56* | *1* |
| *o-Terphenyl (Surr)* | *109* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 12:56* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **265** | | 5.03 | | mg/Kg | | | 11/18/22 09:22 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-94 , 7'

**Date Collected: 11/16/22 16:00**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-5

**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 | | 11/17/22 11:50 | 11/17/22 22:26 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:26 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:26 | 1 |
| m,p-Xylenes | <0.00398 | U *+ | 0.00398 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:26 | 1 |
| o-Xylene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:26 | 1 |
| Xylenes, Total | <0.00398 | U *+ | 0.00398 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *133* | *S1+* | *70 - 130* | *11/17/22 11:50* | *11/17/22 22:26* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 22:26* | *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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 13:18 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 13:18 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 13:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *107* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 13:18* | *1* |
| *o-Terphenyl (Surr)* | *118* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 13:18* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **361** | | 5.02 | | mg/Kg | | | 11/18/22 09:27 | 1 |

## Client Sample ID: C-95 , 7'

**Date Collected: 11/16/22 16:05**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-6

**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 | | 11/17/22 11:50 | 11/17/22 22:51 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:51 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:51 | 1 |
| m,p-Xylenes | <0.00401 | U *+ | 0.00401 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:51 | 1 |
| o-Xylene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:51 | 1 |
| Xylenes, Total | <0.00401 | U *+ | 0.00401 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 22:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *119* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 22:51* | *1* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 22:51* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-95 , 7'

**Date Collected: 11/16/22 16:05**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-6

**Matrix: Solid**

### 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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 13:39 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 13:39 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 13:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *106* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 13:39* | *1* |
| *o-Terphenyl (Surr)* | *115* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 13:39* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **200** | | 4.97 | | mg/Kg | | | 11/18/22 09:33 | 1 |

## Client Sample ID: C-96 , 7'

**Date Collected: 11/16/22 16:10**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-7

**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 | | 11/17/22 11:50 | 11/17/22 23:17 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 23:17 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 23:17 | 1 |
| m,p-Xylenes | <0.00402 | U *+ | 0.00402 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 23:17 | 1 |
| o-Xylene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 23:17 | 1 |
| Xylenes, Total | <0.00402 | U *+ | 0.00402 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 23:17 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 23:17* | *1* |
| *1,4-Difluorobenzene (Surr)* | *74* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 23:17* | *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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 14:02 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 14:02 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-96 , 7'

**Date Collected: 11/16/22 16:10**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-7

**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) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 14:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *101* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 14:02* | *1* |
| *o-Terphenyl (Surr)* | *111* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 14:02* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **240** | | 4.96 | | mg/Kg | | | 11/18/22 09:39 | 1 |

## Client Sample ID: C-97 , 7'

**Date Collected: 11/16/22 16:15**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-8

**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 | | 11/17/22 11:50 | 11/17/22 23:43 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 23:43 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 23:43 | 1 |
| m,p-Xylenes | <0.00403 | U *+ | 0.00403 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 23:43 | 1 |
| o-Xylene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 23:43 | 1 |
| Xylenes, Total | <0.00403 | U *+ | 0.00403 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 23:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 23:43* | *1* |
| *1,4-Difluorobenzene (Surr)* | *82* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 23:43* | *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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 14:24 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 14:24 | 1 |
| Oll Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 14:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *99* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 14:24* | *1* |
| *o-Terphenyl (Surr)* | *108* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 14:24* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **238** | | 5.00 | | mg/Kg | | | 11/18/22 09:44 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-98 , 7'

**Date Collected: 11/16/22 16:20**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-9

**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 | | 11/17/22 11:50 | 11/18/22 00:09 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 00:09 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 00:09 | 1 |
| m,p-Xylenes | <0.00402 | U *+ | 0.00402 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 00:09 | 1 |
| o-Xylene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 00:09 | 1 |
| Xylenes, Total | <0.00402 | U *+ | 0.00402 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 00:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *129* | | *70 - 130* | *11/17/22 11:50* | *11/18/22 00:09* | *1* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *11/17/22 11:50* | *11/18/22 00:09* | *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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 14:46 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 14:46 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 14:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *111* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 14:46* | *1* |
| *o-Terphenyl (Surr)* | *116* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 14:46* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **250** | | 4.96 | | mg/Kg | | | 11/18/22 09:50 | 1 |

## Client Sample ID: C-99 , 7'

**Date Collected: 11/16/22 16:25**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-10

**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 | | 11/17/22 11:50 | 11/18/22 00:35 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 00:35 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 00:35 | 1 |
| m,p-Xylenes | <0.00404 | U *+ | 0.00404 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 00:35 | 1 |
| o-Xylene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 00:35 | 1 |
| Xylenes, Total | <0.00404 | U *+ | 0.00404 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 00:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* | *11/17/22 11:50* | *11/18/22 00:35* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 11:50* | *11/18/22 00:35* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-99 , 7'

**Date Collected: 11/16/22 16:25**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-10

**Matrix: Solid**

### 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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 15:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 15:07 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 15:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *101* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 15:07* | *1* |
| *o-Terphenyl (Surr)* | *109* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 15:07* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **504** | | 4.98 | | mg/Kg | | | 11/18/22 09:56 | 1 |

## Client Sample ID: C-100 , 7'

**Date Collected: 11/16/22 16:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-11

**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 | | 11/17/22 11:50 | 11/18/22 01:01 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 01:01 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 01:01 | 1 |
| m,p-Xylenes | <0.00398 | U *+ | 0.00398 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 01:01 | 1 |
| o-Xylene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 01:01 | 1 |
| Xylenes, Total | <0.00398 | U *+ | 0.00398 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 01:01 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *128* | | *70 - 130* | *11/17/22 11:50* | *11/18/22 01:01* | *1* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* | *11/17/22 11:50* | *11/18/22 01:01* | *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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 15:51 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 15:51 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-100 , 7'

**Lab Sample ID: 880-21717-11**
**Matrix: Solid**
**Date Collected: 11/16/22 16:30**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 13:55 | 11/18/22 15:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *110* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 15:51* | *1* |
| *o-Terphenyl (Surr)* | *118* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 15:51* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **596** | | 4.97 | | mg/Kg | | | 11/18/22 20:47 | 1 |

## Client Sample ID: C-101 , 7'

**Lab Sample ID: 880-21717-12**
**Matrix: Solid**
**Date Collected: 11/16/22 16:35**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 11:50 | 11/18/22 01:26 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 01:26 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 01:26 | 1 |
| m,p-Xylenes | <0.00398 | U *+ | 0.00398 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 01:26 | 1 |
| o-Xylene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 01:26 | 1 |
| Xylenes, Total | <0.00398 | U *+ | 0.00398 | | mg/Kg | | 11/17/22 11:50 | 11/18/22 01:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *107* | | *70 - 130* | *11/17/22 11:50* | *11/18/22 01:26* | *1* |
| *1,4-Difluorobenzene (Surr)* | *78* | | *70 - 130* | *11/17/22 11:50* | *11/18/22 01:26* | *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 | | | 11/22/22 17:04 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 16:13 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 16:13 | 1 |
| Oll Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 16:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *107* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 16:13* | *1* |
| *o-Terphenyl (Surr)* | *114* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 16:13* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **382** | | 4.96 | | mg/Kg | | | 11/18/22 21:04 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-102 , 7'

**Date Collected: 11/16/22 16:40**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-13

**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 | | 11/17/22 11:56 | 11/18/22 11:45 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:45 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:45 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:45 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:45 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *111* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 11:45* | *1* |
| *1,4-Difluorobenzene (Surr)* | *63* | *S1-* | *70 - 130* | *11/17/22 11:56* | *11/18/22 11:45* | *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 | | | 11/18/22 14:30 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 16:35 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 16:35 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 16:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *114* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 16:35* | *1* |
| *o-Terphenyl (Surr)* | *123* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 16:35* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **280** | | 25.0 | | mg/Kg | | | 11/18/22 21:10 | 5 |

## Client Sample ID: C-103 , 7'

**Date Collected: 11/16/22 16:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-14

**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 | | 11/17/22 11:56 | 11/18/22 12:06 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:06 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:06 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:06 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:06 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *124* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 12:06* | *1* |
| *1,4-Difluorobenzene (Surr)* | *77* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 12:06* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-103 , 7'

**Date Collected: 11/16/22 16:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-14**
**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 | | | 11/18/22 14:30 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 16:57 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 16:57 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 16:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *113* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 16:57* | *1* |
| *o-Terphenyl (Surr)* | *120* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 16:57* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **692** | | 5.03 | | mg/Kg | | | 11/18/22 21:15 | 1 |

## Client Sample ID: C-104 , 7'

**Date Collected: 11/16/22 16:50**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-15**
**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 | | 11/17/22 11:56 | 11/18/22 12:26 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:26 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:26 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:26 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:26 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *116* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 12:26* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 12:26* | *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 | | | 11/18/22 14:30 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 17:18 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 17:18 | 1 |

Eurofins Midland

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-104 , 7'

**Date Collected: 11/16/22 16:50**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-15**
**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) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 17:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 17:18* | *1* |
| *o-Terphenyl (Surr)* | *102* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 17:18* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **998** | | 25.3 | | mg/Kg | | | 11/18/22 21:21 | 5 |

## Client Sample ID: C-105 , 7'

**Date Collected: 11/16/22 08:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-16**
**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 | | 11/17/22 11:56 | 11/18/22 12:47 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:47 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:47 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:47 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:47 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 12:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *134* | *S1+* | *70 - 130* | *11/17/22 11:56* | *11/18/22 12:47* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 12:47* | *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 | | | 11/18/22 14:30 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 17:41 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 17:41 | 1 |
| Oll Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 17:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *110* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 17:41* | *1* |
| *o-Terphenyl (Surr)* | *118* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 17:41* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **393** | | 5.02 | | mg/Kg | | | 11/18/22 21:38 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-106 , 7'

**Date Collected: 11/16/22 08:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-17**
**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 | | 11/17/22 11:56 | 11/18/22 13:08 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:08 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:08 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:08 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:08 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:08 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 13:08* | *1* |
| *1,4-Difluorobenzene (Surr)* | *73* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 13:08* | *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 | | | 11/18/22 14:30 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 18:02 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 18:02 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 18:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *116* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 18:02* | *1* |
| *o-Terphenyl (Surr)* | *127* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 18:02* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **263** | | 4.98 | | mg/Kg | | | 11/18/22 21:44 | 1 |

## Client Sample ID: C-107 , 7'

**Date Collected: 11/16/22 09:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-18**
**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 | | 11/17/22 11:56 | 11/18/22 13:28 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:28 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:28 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:28 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:28 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *133* | *S1+* | *70 - 130* | *11/17/22 11:56* | *11/18/22 13:28* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 13:28* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-107 , 7'

**Date Collected: 11/16/22 09:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-18**
**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 | | | 11/18/22 14:30 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 18:23 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 18:23 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 18:23 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *121* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 18:23* | *1* |
| *o-Terphenyl (Surr)* | *130* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 18:23* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **987** | | 24.9 | | mg/Kg | | | 11/18/22 21:49 | 5 |

## Client Sample ID: C-108 , 7'

**Date Collected: 11/16/22 09:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-19**
**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 | | 11/17/22 11:56 | 11/18/22 13:49 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:49 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:49 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:49 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:49 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 13:49 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *125* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 13:49* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 13:49* | *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 | | | 11/18/22 14:30 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 18:45 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 18:45 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-108 , 7'

**Date Collected: 11/16/22 09:15**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-19

**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) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 18:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *102* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 18:45* | *1* |
| *o-Terphenyl (Surr)* | *114* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 18:45* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1070** | | 25.1 | | mg/Kg | | | 11/18/22 21:55 | 5 |

## Client Sample ID: C-109 , 7'

**Date Collected: 11/16/22 09:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-20

**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 | | 11/17/22 11:56 | 11/18/22 15:10 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:10 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:10 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:10 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:10 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *127* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 15:10* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 15:10* | *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 | | | 11/18/22 16:28 | 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 | | | 11/21/22 10:45 | 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 | | 11/17/22 13:55 | 11/18/22 19:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 19:07 | 1 |
| Oll Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 19:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *96* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 19:07* | *1* |
| *o-Terphenyl (Surr)* | *104* | | *70 - 130* | *11/17/22 13:55* | *11/18/22 19:07* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1090** | | 24.9 | | mg/Kg | | | 11/18/22 22:01 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-110 , 7'

**Date Collected: 11/16/22 09:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-21**
**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 | | 11/17/22 11:56 | 11/18/22 15:31 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:31 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:31 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:31 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:31 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *123* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 15:31* | *1* |
| *1,4-Difluorobenzene (Surr)* | *108* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 15:31* | *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 | | | 11/18/22 16:28 | 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 | | | 11/21/22 11:18 | 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 *1 | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 14:14 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 14:14 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 14:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 14:14* | *1* |
| *o-Terphenyl (Surr)* | *110* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 14:14* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1070** | **F1** | 25.2 | | mg/Kg | | | 11/18/22 22:06 | 5 |

## Client Sample ID: C-111 , 7'

**Date Collected: 11/16/22 10:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-22**
**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 | | 11/17/22 11:56 | 11/18/22 15:51 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:51 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:51 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:51 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:51 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 15:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *137* | *S1+* | *70 - 130* | *11/17/22 11:56* | *11/18/22 15:51* | *1* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 15:51* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-111 , 7'

**Date Collected: 11/16/22 10:00**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-22

**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 | | | 11/18/22 16:28 | 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 | | | 11/21/22 11:18 | 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 | <49.9 | U *1 | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 14:36 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 14:36 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 14:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *82* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 14:36* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 14:36* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1050** | | 25.1 | | mg/Kg | | | 11/18/22 22:23 | 5 |

## Client Sample ID: C-112 , 7'

**Date Collected: 11/16/22 10:15**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-23

**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 | | 11/17/22 11:56 | 11/18/22 17:15 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:15 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:15 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:15 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:15 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *127* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 17:15* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 17:15* | *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 | | | 11/21/22 14:45 | 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 | | | 11/21/22 11:18 | 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 *1 | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 14:58 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 14:58 | 1 |

Eurofins Midland

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-112 , 7'

**Lab Sample ID: 880-21717-23**
**Matrix: Solid**
**Date Collected: 11/16/22 10:15**
**Date Received: 11/17/22 10:33**

### 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 | | 11/18/22 07:28 | 11/19/22 14:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *86* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 14:58* | *1* |
| *o-Terphenyl (Surr)* | *97* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 14:58* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **407** | | 5.04 | | mg/Kg | | | 11/18/22 22:29 | 1 |

## Client Sample ID: C-113 , 7'

**Lab Sample ID: 880-21717-24**
**Matrix: Solid**
**Date Collected: 11/16/22 10:30**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 11:56 | 11/18/22 17:35 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:35 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:35 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:35 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:35 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *132* | *S1+* | *70 - 130* | *11/17/22 11:56* | *11/18/22 17:35* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 17:35* | *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 | | | 11/21/22 14:45 | 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 | | | 11/21/22 11:18 | 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 | <49.9 | U *1 | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 15:20 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 15:20 | 1 |
| Oll Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 15:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *101* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 15:20* | *1* |
| *o-Terphenyl (Surr)* | *114* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 15:20* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **406** | | 4.97 | | mg/Kg | | | 11/18/22 22:46 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-114 , 7'

**Date Collected: 11/16/22 10:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-25**
**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 | | 11/17/22 11:56 | 11/18/22 17:56 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:56 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:56 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:56 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:56 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 17:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *146* | *S1+* | *70 - 130* | *11/17/22 11:56* | *11/18/22 17:56* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 17:56* | *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 | | | 11/21/22 14:45 | 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 | | | 11/21/22 11:18 | 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 | <49.9 | U *1 | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 15:42 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 15:42 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 15:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *106* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 15:42* | *1* |
| *o-Terphenyl (Surr)* | *121* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 15:42* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1310** | | 25.3 | | mg/Kg | | | 11/18/22 22:52 | 5 |

## Client Sample ID: C-115 , 7'

**Date Collected: 11/16/22 11:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-26**
**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 | | 11/17/22 11:56 | 11/18/22 18:16 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:16 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:16 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:16 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:16 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *137* | *S1+* | *70 - 130* | *11/17/22 11:56* | *11/18/22 18:16* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 18:16* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-115 , 7'

**Date Collected: 11/16/22 11:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-26**
**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 | | | 11/21/22 14:45 | 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 | | | 11/21/22 11:18 | 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 *1 | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 16:26 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 16:26 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 16:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *87* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 16:26* | *1* |
| *o-Terphenyl (Surr)* | *102* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 16:26* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **959** | | 25.2 | | mg/Kg | | | 11/18/22 22:57 | 5 |

## Client Sample ID: SW-2 , 0-5'

**Date Collected: 11/16/22 11:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-27**
**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 | | 11/17/22 11:56 | 11/18/22 18:37 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:37 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:37 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:37 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:37 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *121* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 18:37* | *1* |
| *1,4-Difluorobenzene (Surr)* | *80* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 18:37* | *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 | | | 11/21/22 14:45 | 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 | | | 11/21/22 11:18 | 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 *1 | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 16:48 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 16:48 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: SW-2 , 0-5'

**Lab Sample ID: 880-21717-27**
**Matrix: Solid**
**Date Collected: 11/16/22 11:15**
**Date Received: 11/17/22 10:33**

### 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 | | 11/18/22 07:28 | 11/19/22 16:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *92* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 16:48* | *1* |
| *o-Terphenyl (Surr)* | *104* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 16:48* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **629** | | 4.99 | | mg/Kg | | | 11/18/22 23:03 | 1 |

## Client Sample ID: SW-3 , 0-5'

**Lab Sample ID: 880-21717-28**
**Matrix: Solid**
**Date Collected: 11/16/22 11:30**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 11:56 | 11/18/22 18:58 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:58 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:58 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:58 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:58 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 18:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *40* | *S1-* | *70 - 130* | *11/17/22 11:56* | *11/18/22 18:58* | *1* |
| *1,4-Difluorobenzene (Surr)* | *81* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 18:58* | *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 | | | 11/21/22 14:45 | 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 | | | 11/21/22 11:18 | 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 *1 | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 17:09 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 17:09 | 1 |
| Oll Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 17:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *92* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 17:09* | *1* |
| *o-Terphenyl (Surr)* | *105* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 17:09* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1150** | | 25.0 | | mg/Kg | | | 11/18/22 23:08 | 5 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: SW-4 , 0-7'

**Lab Sample ID: 880-21717-29**
**Matrix: Solid**
**Date Collected: 11/16/22 11:45**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 11:56 | 11/18/22 19:18 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 19:18 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 19:18 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 19:18 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 19:18 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 19:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 19:18* | *1* |
| *1,4-Difluorobenzene (Surr)* | *73* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 19:18* | *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 | | | 11/21/22 14:45 | 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 | | | 11/21/22 11:18 | 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 *1 | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 17:31 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 17:31 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 17:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *96* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 17:31* | *1* |
| *o-Terphenyl (Surr)* | *105* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 17:31* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **633** | | 24.9 | | mg/Kg | | | 11/18/22 23:14 | 5 |

## Client Sample ID: SW-5 , 0-7'

**Lab Sample ID: 880-21717-30**
**Matrix: Solid**
**Date Collected: 11/16/22 12:00**
**Date Received: 11/17/22 10:33**

### 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 | | 11/17/22 11:56 | 11/18/22 19:39 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 19:39 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 19:39 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 19:39 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 19:39 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 19:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *135* | *S1+* | *70 - 130* | *11/17/22 11:56* | *11/18/22 19:39* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 19:39* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: SW-5 , 0-7'

**Date Collected: 11/16/22 12:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-30**
**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 | | | 11/21/22 14:45 | 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 | | | 11/21/22 11:18 | 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 *1 | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 17:53 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 17:53 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 17:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *110* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 17:53* | *1* |
| *o-Terphenyl (Surr)* | *121* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 17:53* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1870 | | 24.8 | | mg/Kg | | | 11/18/22 23:20 | 5 |

## Client Sample ID: SW-6 , 0-7'

**Date Collected: 11/16/22 12:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-31**
**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 | | 11/17/22 11:56 | 11/18/22 20:00 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:00 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:00 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:00 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:00 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *80* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 20:00* | *1* |
| *1,4-Difluorobenzene (Surr)* | *71* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 20:00* | *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 | | | 11/21/22 14:45 | 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 | | | 11/21/22 11:18 | 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 | <49.9 | U *1 | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 18:14 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 18:14 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: SW-6 , 0-7'

**Lab Sample ID: 880-21717-31**
**Matrix: Solid**
**Date Collected: 11/16/22 12:15**
**Date Received: 11/17/22 10:33**

### 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 | | 11/18/22 07:28 | 11/19/22 18:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *86* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 18:14* | *1* |
| *o-Terphenyl (Surr)* | *100* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 18:14* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2270** | **F1** | 25.3 | | mg/Kg | | | 11/18/22 08:14 | 5 |

## Client Sample ID: SW-7 , 0-5'

**Lab Sample ID: 880-21717-32**
**Matrix: Solid**
**Date Collected: 11/16/22 12:30**
**Date Received: 11/17/22 10:33**

### Method: SW846 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Benzene** | **0.00209** | | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:20 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:20 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:20 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:20 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:20 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 20:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 20:20* | *1* |
| *1,4-Difluorobenzene (Surr)* | *82* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 20:20* | *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 | | | 11/21/22 14:45 | 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 | | | 11/21/22 11:18 | 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 | <49.9 | U *1 | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 18:36 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 18:36 | 1 |
| Oll Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 18:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *107* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 18:36* | *1* |
| *o-Terphenyl (Surr)* | *120* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 18:36* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **7050** | | 50.0 | | mg/Kg | | | 11/18/22 08:36 | 10 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: SW-8 , 0-7'

**Date Collected: 11/16/22 12:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-33

**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 | | 11/17/22 12:32 | 11/17/22 19:32 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:32 | 11/17/22 19:32 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:32 | 11/17/22 19:32 | 1 |
| **m,p-Xylenes** | **0.00939** | | 0.00398 | | mg/Kg | | 11/17/22 12:32 | 11/17/22 19:32 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 11/17/22 12:32 | 11/17/22 19:32 | 1 |
| **Xylenes, Total** | **0.00939** | | 0.00398 | | mg/Kg | | 11/17/22 12:32 | 11/17/22 19:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *130* | | *70 - 130* | *11/17/22 12:32* | *11/17/22 19:32* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *11/17/22 12:32* | *11/17/22 19:32* | *1* |

### Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total BTEX** | **0.00939** | | 0.00398 | | mg/Kg | | | 11/18/22 12:11 | 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 | | | 11/21/22 11:18 | 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 *1 | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 18:57 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 18:57 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 18:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *96* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 18:57* | *1* |
| *o-Terphenyl (Surr)* | *113* | | *70 - 130* | *11/18/22 07:28* | *11/19/22 18:57* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1130** | | 25.0 | | mg/Kg | | | 11/18/22 08:43 | 5 |

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## 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) |
| 880-21717-1 | C-90, 5.5 | 139 S1+ | 100 |
| 880-21717-2 | C-91, 5.5 | 130 | 99 |
| 880-21717-3 | C-92 , 7' | 116 | 111 |
| 880-21717-4 | C-93 , 7' | 112 | 90 |
| 880-21717-5 | C-94 , 7' | 133 S1+ | 93 |
| 880-21717-6 | C-95 , 7' | 119 | 91 |
| 880-21717-7 | C-96 , 7' | 95 | 74 |
| 880-21717-8 | C-97 , 7' | 101 | 82 |
| 880-21717-9 | C-98 , 7' | 129 | 91 |
| 880-21717-10 | C-99 , 7' | 120 | 97 |
| 880-21717-11 | C-100 , 7' | 128 | 92 |
| 880-21717-12 | C-101 , 7' | 107 | 78 |
| 880-21717-13 | C-102 , 7' | 111 | 63 S1- |
| 880-21717-13 MS | C-102 , 7' | 92 | 103 |
| 880-21717-13 MSD | C-102 , 7' | 92 | 99 |
| 880-21717-14 | C-103 , 7' | 124 | 77 |
| 880-21717-15 | C-104 , 7' | 116 | 105 |
| 880-21717-16 | C-105 , 7' | 134 S1+ | 106 |
| 880-21717-17 | C-106 , 7' | 114 | 73 |
| 880-21717-18 | C-107 , 7' | 133 S1+ | 93 |
| 880-21717-19 | C-108 , 7' | 125 | 106 |
| 880-21717-20 | C-109 , 7' | 127 | 104 |
| 880-21717-21 | C-110 , 7' | 123 | 108 |
| 880-21717-22 | C-111 , 7' | 137 S1+ | 95 |
| 880-21717-23 | C-112 , 7' | 127 | 96 |
| 880-21717-24 | C-113 , 7' | 132 S1+ | 100 |
| 880-21717-25 | C-114 , 7' | 146 S1+ | 103 |
| 880-21717-26 | C-115 , 7' | 137 S1+ | 97 |
| 880-21717-27 | SW-2 , 0-5' | 121 | 80 |
| 880-21717-28 | SW-3 , 0-5' | 40 S1- | 81 |
| 880-21717-29 | SW-4 , 0-7' | 98 | 73 |
| 880-21717-30 | SW-5 , 0-7' | 135 S1+ | 100 |
| 880-21717-31 | SW-6 , 0-7' | 80 | 71 |
| 880-21717-32 | SW-7 , 0-5' | 114 | 82 |
| 880-21717-33 | SW-8 , 0-7' | 130 | 103 |
| LCS 880-39775/1-A | Lab Control Sample | 91 | 102 |
| LCS 880-39791/1-A | Lab Control Sample | 93 | 84 |
| LCS 880-39794/1-A | Lab Control Sample | 85 | 102 |
| LCSD 880-39775/2-A | Lab Control Sample Dup | 96 | 100 |
| LCSD 880-39791/2-A | Lab Control Sample Dup | 129 | 100 |
| LCSD 880-39794/2-A | Lab Control Sample Dup | 83 | 94 |
| MB 880-39775/5-A | Method Blank | 100 | 93 |
| MB 880-39791/5-A | Method Blank | 75 | 84 |
| MB 880-39794/5-A | Method Blank | 98 | 93 |

**Surrogate Legend**

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

# Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-21717-1
Project/Site: Culebra Bluff SE 5 32 SDG: 19-0180-07

## 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) |
| 880-21717-1 | C-90, 5.5 | 103 | 114 |
| 880-21717-1 MS | C-90, 5.5 | 91 | 89 |
| 880-21717-1 MSD | C-90, 5.5 | 92 | 88 |
| 880-21717-2 | C-91, 5.5 | 99 | 107 |
| 880-21717-3 | C-92 , 7' | 103 | 111 |
| 880-21717-4 | C-93 , 7' | 100 | 109 |
| 880-21717-5 | C-94 , 7' | 107 | 118 |
| 880-21717-6 | C-95 , 7' | 106 | 115 |
| 880-21717-7 | C-96 , 7' | 101 | 111 |
| 880-21717-8 | C-97 , 7' | 99 | 108 |
| 880-21717-9 | C-98 , 7' | 111 | 116 |
| 880-21717-10 | C-99 , 7' | 101 | 109 |
| 880-21717-11 | C-100 , 7' | 110 | 118 |
| 880-21717-12 | C-101 , 7' | 107 | 114 |
| 880-21717-13 | C-102 , 7' | 114 | 123 |
| 880-21717-14 | C-103 , 7' | 113 | 120 |
| 880-21717-15 | C-104 , 7' | 95 | 102 |
| 880-21717-16 | C-105 , 7' | 110 | 118 |
| 880-21717-17 | C-106 , 7' | 116 | 127 |
| 880-21717-18 | C-107 , 7' | 121 | 130 |
| 880-21717-19 | C-108 , 7' | 102 | 114 |
| 880-21717-20 | C-109 , 7' | 96 | 104 |
| 880-21717-21 | C-110 , 7' | 95 | 110 |
| 880-21717-22 | C-111 , 7' | 82 | 95 |
| 880-21717-23 | C-112 , 7' | 86 | 97 |
| 880-21717-24 | C-113 , 7' | 101 | 114 |
| 880-21717-25 | C-114 , 7' | 106 | 121 |
| 880-21717-26 | C-115 , 7' | 87 | 102 |
| 880-21717-27 | SW-2 , 0-5' | 92 | 104 |
| 880-21717-28 | SW-3 , 0-5' | 92 | 105 |
| 880-21717-29 | SW-4 , 0-7' | 96 | 105 |
| 880-21717-30 | SW-5 , 0-7' | 110 | 121 |
| 880-21717-31 | SW-6 , 0-7' | 86 | 100 |
| 880-21717-32 | SW-7 , 0-5' | 107 | 120 |
| 880-21717-33 | SW-8 , 0-7' | 96 | 113 |
| LCS 880-39822/2-A | Lab Control Sample | 92 | 100 |
| LCS 880-39882/2-A | Lab Control Sample | 198 S1+ | 226 S1+ |
| LCSD 880-39822/3-A | Lab Control Sample Dup | 95 | 105 |
| LCSD 880-39882/3-A | Lab Control Sample Dup | 214 S1+ | 241 S1+ |
| MB 880-39822/1-A | Method Blank | 111 | 121 |
| MB 880-39882/1-A | Method Blank | 95 | 111 |

**Surrogate Legend**

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

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-39775/5-A**
**Matrix: Solid**
**Analysis Batch: 39773**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39775**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 08:47 | 11/17/22 10:50 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 08:47 | 11/17/22 10:50 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 08:47 | 11/17/22 10:50 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 08:47 | 11/17/22 10:50 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 08:47 | 11/17/22 10:50 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 08:47 | 11/17/22 10:50 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* | *11/17/22 08:47* | *11/17/22 10:50* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *11/17/22 08:47* | *11/17/22 10:50* | *1* |

**Lab Sample ID: LCS 880-39775/1-A**
**Matrix: Solid**
**Analysis Batch: 39773**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 39775**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1041 | | mg/Kg | | 104 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.1020 | | mg/Kg | | 102 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.1003 | | mg/Kg | | 100 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.1916 | | mg/Kg | | 96 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.1072 | | mg/Kg | | 107 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *91* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* |

**Lab Sample ID: LCSD 880-39775/2-A**
**Matrix: Solid**
**Analysis Batch: 39773**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 39775**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1051 | | mg/Kg | | 105 | 70 - 130 | 1 | 35 |
| Toluene | | | 0.100 | 0.1032 | | mg/Kg | | 103 | 70 - 130 | 1 | 35 |
| Ethylbenzene | | | 0.100 | 0.1047 | | mg/Kg | | 105 | 70 - 130 | 4 | 35 |
| m,p-Xylenes | | | 0.200 | 0.2055 | | mg/Kg | | 103 | 70 - 130 | 7 | 35 |
| o-Xylene | | | 0.100 | 0.1157 | | mg/Kg | | 116 | 70 - 130 | 8 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *96* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* |

**Lab Sample ID: MB 880-39791/5-A**
**Matrix: Solid**
**Analysis Batch: 39800**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39791**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 15:36 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 15:36 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-39791/5-A**
**Matrix: Solid**
**Analysis Batch: 39800**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39791**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 15:36 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 15:36 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 15:36 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 11:50 | 11/17/22 15:36 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *75* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 15:36* | *1* |
| *1,4-Difluorobenzene (Surr)* | *84* | | *70 - 130* | *11/17/22 11:50* | *11/17/22 15:36* | *1* |

**Lab Sample ID: LCS 880-39791/1-A**
**Matrix: Solid**
**Analysis Batch: 39800**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 39791**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.100 | 0.08587 | | mg/Kg | | 86 | 70 - 130 |
| Toluene | 0.100 | 0.09423 | | mg/Kg | | 94 | 70 - 130 |
| Ethylbenzene | 0.100 | 0.09375 | | mg/Kg | | 94 | 70 - 130 |
| m,p-Xylenes | 0.200 | 0.2050 | | mg/Kg | | 103 | 70 - 130 |
| o-Xylene | 0.100 | 0.09953 | | mg/Kg | | 100 | 70 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *93* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *84* | | *70 - 130* |

**Lab Sample ID: LCSD 880-39791/2-A**
**Matrix: Solid**
**Analysis Batch: 39800**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 39791**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.100 | 0.1161 | | mg/Kg | | 116 | 70 - 130 | 30 | 35 |
| Toluene | 0.100 | 0.1140 | | mg/Kg | | 114 | 70 - 130 | 19 | 35 |
| Ethylbenzene | 0.100 | 0.1201 | | mg/Kg | | 120 | 70 - 130 | 25 | 35 |
| m,p-Xylenes | 0.200 | 0.2670 | *+ | mg/Kg | | 134 | 70 - 130 | 26 | 35 |
| o-Xylene | 0.100 | 0.1373 | *+ | mg/Kg | | 137 | 70 - 130 | 32 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *129* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* |

**Lab Sample ID: MB 880-39794/5-A**
**Matrix: Solid**
**Analysis Batch: 39827**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39794**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:23 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:23 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:23 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:23 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-39794/5-A**
**Matrix: Solid**
**Analysis Batch: 39827**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39794**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:23 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 11/17/22 11:56 | 11/18/22 11:23 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 11:23* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *11/17/22 11:56* | *11/18/22 11:23* | *1* |

**Lab Sample ID: LCS 880-39794/1-A**
**Matrix: Solid**
**Analysis Batch: 39827**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 39794**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1022 | | mg/Kg | | 102 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.09930 | | mg/Kg | | 99 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.09436 | | mg/Kg | | 94 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.1779 | | mg/Kg | | 89 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.09994 | | mg/Kg | | 100 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *85* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* |

**Lab Sample ID: LCSD 880-39794/2-A**
**Matrix: Solid**
**Analysis Batch: 39827**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 39794**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.09626 | | mg/Kg | | 96 | 70 - 130 | 6 | 35 |
| Toluene | | | 0.100 | 0.09499 | | mg/Kg | | 95 | 70 - 130 | 4 | 35 |
| Ethylbenzene | | | 0.100 | 0.09171 | | mg/Kg | | 92 | 70 - 130 | 3 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1751 | | mg/Kg | | 88 | 70 - 130 | 2 | 35 |
| o-Xylene | | | 0.100 | 0.09903 | | mg/Kg | | 99 | 70 - 130 | 1 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *83* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *94* | | *70 - 130* |

**Lab Sample ID: 880-21717-13 MS**
**Matrix: Solid**
**Analysis Batch: 39827**

**Client Sample ID: C-102 , 7'**
**Prep Type: Total/NA**
**Prep Batch: 39794**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.0996 | 0.08795 | | mg/Kg | | 87 | 70 - 130 | | |
| Toluene | <0.00201 | U | 0.0996 | 0.08098 | | mg/Kg | | 81 | 70 - 130 | | |
| Ethylbenzene | <0.00201 | U | 0.0996 | 0.07301 | | mg/Kg | | 72 | 70 - 130 | | |
| m,p-Xylenes | <0.00402 | U | 0.199 | 0.1431 | | mg/Kg | | 72 | 70 - 130 | | |
| o-Xylene | <0.00201 | U | 0.0996 | 0.08260 | | mg/Kg | | 83 | 70 - 130 | | |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-21717-13 MS**
**Matrix: Solid**
**Analysis Batch: 39827**

**Client Sample ID: C-102 , 7'**
**Prep Type: Total/NA**
**Prep Batch: 39794**

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 92 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 103 | | 70 - 130 |

**Lab Sample ID: 880-21717-13 MSD**
**Matrix: Solid**
**Analysis Batch: 39827**

**Client Sample ID: C-102 , 7'**
**Prep Type: Total/NA**
**Prep Batch: 39794**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.0994 | 0.08319 | | mg/Kg | | 83 | 70 - 130 | 6 | 35 |
| Toluene | <0.00201 | U | 0.0994 | 0.07644 | | mg/Kg | | 77 | 70 - 130 | 6 | 35 |
| Ethylbenzene | <0.00201 | U | 0.0994 | 0.07213 | | mg/Kg | | 72 | 70 - 130 | 1 | 35 |
| m,p-Xylenes | <0.00402 | U | 0.199 | 0.1391 | | mg/Kg | | 70 | 70 - 130 | 3 | 35 |
| o-Xylene | <0.00201 | U | 0.0994 | 0.07813 | | mg/Kg | | 79 | 70 - 130 | 6 | 35 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 92 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 99 | | 70 - 130 |

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

**Lab Sample ID: MB 880-39822/1-A**
**Matrix: Solid**
**Analysis Batch: 39876**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39822**

| 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 | | 11/17/22 13:55 | 11/18/22 08:33 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 08:33 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/17/22 13:55 | 11/18/22 08:33 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane (Surr) | 111 | | 70 - 130 | 11/17/22 13:55 | 11/18/22 08:33 | 1 |
| o-Terphenyl (Surr) | 121 | | 70 - 130 | 11/17/22 13:55 | 11/18/22 08:33 | 1 |

**Lab Sample ID: LCS 880-39822/2-A**
**Matrix: Solid**
**Analysis Batch: 39876**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 39822**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 907.4 | | mg/Kg | | 91 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 997.6 | | mg/Kg | | 100 | 70 - 130 | | |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 92 | | 70 - 130 |
| o-Terphenyl (Surr) | 100 | | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

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

**Lab Sample ID: LCSD 880-39822/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39876** — **Prep Batch: 39822**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 937.8 | | mg/Kg | | 94 | 70 - 130 | 3 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 1078 | | mg/Kg | | 108 | 70 - 130 | 8 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *105* | | *70 - 130* |

**Lab Sample ID: 880-21717-1 MS** — **Client Sample ID: C-90, 5.5**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39876** — **Prep Batch: 39822**

| 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 | 990.7 | | mg/Kg | | 99 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 999 | 1022 | | mg/Kg | | 98 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *91* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *89* | | *70 - 130* |

**Lab Sample ID: 880-21717-1 MSD** — **Client Sample ID: C-90, 5.5**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39876** — **Prep Batch: 39822**

| 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 | 997 | 1019 | | mg/Kg | | 102 | 70 - 130 | 3 | 20 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 997 | 1032 | | mg/Kg | | 99 | 70 - 130 | 1 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *92* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *88* | | *70 - 130* |

**Lab Sample ID: MB 880-39882/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 39958** — **Prep Batch: 39882**

| 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 | | 11/18/22 07:28 | 11/19/22 09:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 09:07 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 11/18/22 07:28 | 11/19/22 09:07 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-39882/1-A**
**Matrix: Solid**
**Analysis Batch: 39958**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 39882**

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane (Surr) | 95 | | 70 - 130 | 11/18/22 07:28 | 11/19/22 09:07 | 1 |
| o-Terphenyl (Surr) | 111 | | 70 - 130 | 11/18/22 07:28 | 11/19/22 09:07 | 1 |

**Lab Sample ID: LCS 880-39882/2-A**
**Matrix: Solid**
**Analysis Batch: 39958**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 39882**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1000 | 874.4 | | mg/Kg | | 87 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | 1000 | 1088 | | mg/Kg | | 109 | 70 - 130 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 198 | S1+ | 70 - 130 |
| o-Terphenyl (Surr) | 226 | S1+ | 70 - 130 |

**Lab Sample ID: LCSD 880-39882/3-A**
**Matrix: Solid**
**Analysis Batch: 39958**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 39882**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1000 | 1134 | *1 | mg/Kg | | 113 | 70 - 130 | 26 | 20 |
| Diesel Range Organics (Over C10-C28) | 1000 | 1280 | | mg/Kg | | 128 | 70 - 130 | 16 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 214 | S1+ | 70 - 130 |
| o-Terphenyl (Surr) | 241 | S1+ | 70 - 130 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-39796/1-A**
**Matrix: Solid**
**Analysis Batch: 39854**

**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 | | | 11/18/22 07:53 | 1 |

**Lab Sample ID: LCS 880-39796/2-A**
**Matrix: Solid**
**Analysis Batch: 39854**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 250 | 263.9 | | mg/Kg | | 106 | 90 - 110 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 880-39796/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 39854**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 259.3 | | mg/Kg | | 104 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 880-21717-31 MS** — **Client Sample ID: SW-6 , 0-7'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 39854**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2270 | F1 | 1260 | 3833 | F1 | mg/Kg | | 124 | 90 - 110 | | |

**Lab Sample ID: 880-21717-31 MSD** — **Client Sample ID: SW-6 , 0-7'**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 39854**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2270 | F1 | 1260 | 3723 | F1 | mg/Kg | | 115 | 90 - 110 | 3 | 20 |

**Lab Sample ID: MB 880-39793/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 39855**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 11/18/22 07:06 | 1 |

**Lab Sample ID: LCS 880-39793/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 39855**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 259.2 | | mg/Kg | | 104 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-39793/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 39855**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 259.7 | | mg/Kg | | 104 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 880-21717-1 MS** — **Client Sample ID: C-90, 5.5**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 39855**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1050 | F1 | 1250 | 2433 | F1 | mg/Kg | | 111 | 90 - 110 | | |

**Lab Sample ID: 880-21717-1 MSD** — **Client Sample ID: C-90, 5.5**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 39855**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1050 | F1 | 1250 | 2428 | | mg/Kg | | 110 | 90 - 110 | 0 | 20 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-39795/1-A**
**Matrix: Solid**
**Analysis Batch: 39857**

**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 | | | 11/18/22 20:30 | 1 |

**Lab Sample ID: LCS 880-39795/2-A**
**Matrix: Solid**
**Analysis Batch: 39857**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 260.2 | | mg/Kg | | 104 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-39795/3-A**
**Matrix: Solid**
**Analysis Batch: 39857**

**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 | 257.7 | | mg/Kg | | 103 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 880-21717-11 MS**
**Matrix: Solid**
**Analysis Batch: 39857**

**Client Sample ID: C-100 , 7'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 596 | | 249 | 838.9 | | mg/Kg | | 98 | 90 - 110 | | |

**Lab Sample ID: 880-21717-11 MSD**
**Matrix: Solid**
**Analysis Batch: 39857**

**Client Sample ID: C-100 , 7'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 596 | | 249 | 842.6 | | mg/Kg | | 99 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 880-21717-21 MS**
**Matrix: Solid**
**Analysis Batch: 39857**

**Client Sample ID: C-110 , 7'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1070 | F1 | 1260 | 1156 | F1 | mg/Kg | | 7 | 90 - 110 | | |

**Lab Sample ID: 880-21717-21 MSD**
**Matrix: Solid**
**Analysis Batch: 39857**

**Client Sample ID: C-110 , 7'**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1070 | F1 | 1260 | 1142 | F1 | mg/Kg | | 6 | 90 - 110 | 1 | 20 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## GC VOA

### Analysis Batch: 39773

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-33 | SW-8 , 0-7' | Total/NA | Solid | 8021B | 39775 |
| MB 880-39775/5-A | Method Blank | Total/NA | Solid | 8021B | 39775 |
| LCS 880-39775/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 39775 |
| LCSD 880-39775/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 39775 |

### Prep Batch: 39775

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-33 | SW-8 , 0-7' | Total/NA | Solid | 5035 | |
| MB 880-39775/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-39775/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-39775/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |

### Prep Batch: 39791

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-1 | C-90, 5.5 | Total/NA | Solid | 5035 | |
| 880-21717-2 | C-91, 5.5 | Total/NA | Solid | 5035 | |
| 880-21717-3 | C-92 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-4 | C-93 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-5 | C-94 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-6 | C-95 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-7 | C-96 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-8 | C-97 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-9 | C-98 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-10 | C-99 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-11 | C-100 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-12 | C-101 , 7' | Total/NA | Solid | 5035 | |
| MB 880-39791/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-39791/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-39791/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |

### Prep Batch: 39794

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-13 | C-102 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-14 | C-103 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-15 | C-104 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-16 | C-105 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-17 | C-106 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-18 | C-107 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-19 | C-108 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-20 | C-109 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-21 | C-110 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-22 | C-111 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-23 | C-112 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-24 | C-113 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-25 | C-114 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-26 | C-115 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-27 | SW-2 , 0-5' | Total/NA | Solid | 5035 | |
| 880-21717-28 | SW-3 , 0-5' | Total/NA | Solid | 5035 | |
| 880-21717-29 | SW-4 , 0-7' | Total/NA | Solid | 5035 | |
| 880-21717-30 | SW-5 , 0-7' | Total/NA | Solid | 5035 | |
| 880-21717-31 | SW-6 , 0-7' | Total/NA | Solid | 5035 | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## GC VOA (Continued)

### Prep Batch: 39794 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-32 | SW-7 , 0-5' | Total/NA | Solid | 5035 | |
| MB 880-39794/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-39794/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-39794/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-21717-13 MS | C-102 , 7' | Total/NA | Solid | 5035 | |
| 880-21717-13 MSD | C-102 , 7' | Total/NA | Solid | 5035 | |

### Analysis Batch: 39800

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-1 | C-90, 5.5 | Total/NA | Solid | 8021B | 39791 |
| 880-21717-2 | C-91, 5.5 | Total/NA | Solid | 8021B | 39791 |
| 880-21717-3 | C-92 , 7' | Total/NA | Solid | 8021B | 39791 |
| 880-21717-4 | C-93 , 7' | Total/NA | Solid | 8021B | 39791 |
| 880-21717-5 | C-94 , 7' | Total/NA | Solid | 8021B | 39791 |
| 880-21717-6 | C-95 , 7' | Total/NA | Solid | 8021B | 39791 |
| 880-21717-7 | C-96 , 7' | Total/NA | Solid | 8021B | 39791 |
| 880-21717-8 | C-97 , 7' | Total/NA | Solid | 8021B | 39791 |
| 880-21717-9 | C-98 , 7' | Total/NA | Solid | 8021B | 39791 |
| 880-21717-10 | C-99 , 7' | Total/NA | Solid | 8021B | 39791 |
| 880-21717-11 | C-100 , 7' | Total/NA | Solid | 8021B | 39791 |
| 880-21717-12 | C-101 , 7' | Total/NA | Solid | 8021B | 39791 |
| MB 880-39791/5-A | Method Blank | Total/NA | Solid | 8021B | 39791 |
| LCS 880-39791/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 39791 |
| LCSD 880-39791/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 39791 |

### Analysis Batch: 39827

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-13 | C-102 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-14 | C-103 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-15 | C-104 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-16 | C-105 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-17 | C-106 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-18 | C-107 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-19 | C-108 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-20 | C-109 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-21 | C-110 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-22 | C-111 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-23 | C-112 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-24 | C-113 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-25 | C-114 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-26 | C-115 , 7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-27 | SW-2 , 0-5' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-28 | SW-3 , 0-5' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-29 | SW-4 , 0-7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-30 | SW-5 , 0-7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-31 | SW-6 , 0-7' | Total/NA | Solid | 8021B | 39794 |
| 880-21717-32 | SW-7 , 0-5' | Total/NA | Solid | 8021B | 39794 |
| MB 880-39794/5-A | Method Blank | Total/NA | Solid | 8021B | 39794 |
| LCS 880-39794/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 39794 |
| LCSD 880-39794/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 39794 |
| 880-21717-13 MS | C-102 , 7' | Total/NA | Solid | 8021B | 39794 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## GC VOA (Continued)

### Analysis Batch: 39827 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-13 MSD | C-102 , 7' | Total/NA | Solid | 8021B | 39794 |

### Analysis Batch: 39921

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-1 | C-90, 5.5 | Total/NA | Solid | Total BTEX | |
| 880-21717-2 | C-91, 5.5 | Total/NA | Solid | Total BTEX | |
| 880-21717-3 | C-92 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-4 | C-93 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-5 | C-94 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-6 | C-95 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-7 | C-96 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-8 | C-97 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-9 | C-98 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-10 | C-99 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-11 | C-100 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-12 | C-101 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-13 | C-102 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-14 | C-103 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-15 | C-104 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-16 | C-105 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-17 | C-106 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-18 | C-107 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-19 | C-108 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-20 | C-109 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-21 | C-110 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-22 | C-111 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-23 | C-112 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-24 | C-113 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-25 | C-114 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-26 | C-115 , 7' | Total/NA | Solid | Total BTEX | |
| 880-21717-27 | SW-2 , 0-5' | Total/NA | Solid | Total BTEX | |
| 880-21717-28 | SW-3 , 0-5' | Total/NA | Solid | Total BTEX | |
| 880-21717-29 | SW-4 , 0-7' | Total/NA | Solid | Total BTEX | |
| 880-21717-30 | SW-5 , 0-7' | Total/NA | Solid | Total BTEX | |
| 880-21717-31 | SW-6 , 0-7' | Total/NA | Solid | Total BTEX | |
| 880-21717-32 | SW-7 , 0-5' | Total/NA | Solid | Total BTEX | |
| 880-21717-33 | SW-8 , 0-7' | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Prep Batch: 39822

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-1 | C-90, 5.5 | Total/NA | Solid | 8015NM Prep | |
| 880-21717-2 | C-91, 5.5 | Total/NA | Solid | 8015NM Prep | |
| 880-21717-3 | C-92 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-4 | C-93 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-5 | C-94 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-6 | C-95 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-7 | C-96 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-8 | C-97 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-9 | C-98 , 7' | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## GC Semi VOA (Continued)

### Prep Batch: 39822 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-10 | C-99 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-11 | C-100 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-12 | C-101 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-13 | C-102 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-14 | C-103 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-15 | C-104 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-16 | C-105 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-17 | C-106 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-18 | C-107 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-19 | C-108 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-20 | C-109 , 7' | Total/NA | Solid | 8015NM Prep | |
| MB 880-39822/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-39822/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-39822/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-21717-1 MS | C-90, 5.5 | Total/NA | Solid | 8015NM Prep | |
| 880-21717-1 MSD | C-90, 5.5 | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 39876

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-1 | C-90, 5.5 | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-2 | C-91, 5.5 | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-3 | C-92 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-4 | C-93 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-5 | C-94 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-6 | C-95 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-7 | C-96 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-8 | C-97 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-9 | C-98 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-10 | C-99 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-11 | C-100 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-12 | C-101 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-13 | C-102 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-14 | C-103 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-15 | C-104 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-16 | C-105 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-17 | C-106 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-18 | C-107 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-19 | C-108 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-20 | C-109 , 7' | Total/NA | Solid | 8015B NM | 39822 |
| MB 880-39822/1-A | Method Blank | Total/NA | Solid | 8015B NM | 39822 |
| LCS 880-39822/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 39822 |
| LCSD 880-39822/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-1 MS | C-90, 5.5 | Total/NA | Solid | 8015B NM | 39822 |
| 880-21717-1 MSD | C-90, 5.5 | Total/NA | Solid | 8015B NM | 39822 |

### Prep Batch: 39882

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-21 | C-110 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-22 | C-111 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-23 | C-112 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-24 | C-113 , 7' | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## GC Semi VOA (Continued)

### Prep Batch: 39882 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-25 | C-114 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-26 | C-115 , 7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-27 | SW-2 , 0-5' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-28 | SW-3 , 0-5' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-29 | SW-4 , 0-7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-30 | SW-5 , 0-7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-31 | SW-6 , 0-7' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-32 | SW-7 , 0-5' | Total/NA | Solid | 8015NM Prep | |
| 880-21717-33 | SW-8 , 0-7' | Total/NA | Solid | 8015NM Prep | |
| MB 880-39882/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-39882/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-39882/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 39958

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-21 | C-110 , 7' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-22 | C-111 , 7' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-23 | C-112 , 7' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-24 | C-113 , 7' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-25 | C-114 , 7' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-26 | C-115 , 7' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-27 | SW-2 , 0-5' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-28 | SW-3 , 0-5' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-29 | SW-4 , 0-7' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-30 | SW-5 , 0-7' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-31 | SW-6 , 0-7' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-32 | SW-7 , 0-5' | Total/NA | Solid | 8015B NM | 39882 |
| 880-21717-33 | SW-8 , 0-7' | Total/NA | Solid | 8015B NM | 39882 |
| MB 880-39882/1-A | Method Blank | Total/NA | Solid | 8015B NM | 39882 |
| LCS 880-39882/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 39882 |
| LCSD 880-39882/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 39882 |

### Analysis Batch: 40090

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-1 | C-90, 5.5 | Total/NA | Solid | 8015 NM | |
| 880-21717-2 | C-91, 5.5 | Total/NA | Solid | 8015 NM | |
| 880-21717-3 | C-92 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-4 | C-93 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-5 | C-94 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-6 | C-95 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-7 | C-96 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-8 | C-97 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-9 | C-98 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-10 | C-99 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-11 | C-100 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-12 | C-101 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-13 | C-102 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-14 | C-103 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-15 | C-104 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-16 | C-105 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-17 | C-106 , 7' | Total/NA | Solid | 8015 NM | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## GC Semi VOA (Continued)

### Analysis Batch: 40090 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-18 | C-107 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-19 | C-108 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-20 | C-109 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-21 | C-110 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-22 | C-111 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-23 | C-112 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-24 | C-113 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-25 | C-114 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-26 | C-115 , 7' | Total/NA | Solid | 8015 NM | |
| 880-21717-27 | SW-2 , 0-5' | Total/NA | Solid | 8015 NM | |
| 880-21717-28 | SW-3 , 0-5' | Total/NA | Solid | 8015 NM | |
| 880-21717-29 | SW-4 , 0-7' | Total/NA | Solid | 8015 NM | |
| 880-21717-30 | SW-5 , 0-7' | Total/NA | Solid | 8015 NM | |
| 880-21717-31 | SW-6 , 0-7' | Total/NA | Solid | 8015 NM | |
| 880-21717-32 | SW-7 , 0-5' | Total/NA | Solid | 8015 NM | |
| 880-21717-33 | SW-8 , 0-7' | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 39793

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-1 | C-90, 5.5 | Soluble | Solid | DI Leach | |
| 880-21717-2 | C-91, 5.5 | Soluble | Solid | DI Leach | |
| 880-21717-3 | C-92 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-4 | C-93 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-5 | C-94 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-6 | C-95 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-7 | C-96 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-8 | C-97 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-9 | C-98 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-10 | C-99 , 7' | Soluble | Solid | DI Leach | |
| MB 880-39793/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-39793/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-39793/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-21717-1 MS | C-90, 5.5 | Soluble | Solid | DI Leach | |
| 880-21717-1 MSD | C-90, 5.5 | Soluble | Solid | DI Leach | |

### Leach Batch: 39795

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-11 | C-100 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-12 | C-101 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-13 | C-102 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-14 | C-103 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-15 | C-104 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-16 | C-105 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-17 | C-106 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-18 | C-107 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-19 | C-108 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-20 | C-109 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-21 | C-110 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-22 | C-111 , 7' | Soluble | Solid | DI Leach | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## HPLC/IC (Continued)

### Leach Batch: 39795 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-23 | C-112 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-24 | C-113 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-25 | C-114 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-26 | C-115 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-27 | SW-2 , 0-5' | Soluble | Solid | DI Leach | |
| 880-21717-28 | SW-3 , 0-5' | Soluble | Solid | DI Leach | |
| 880-21717-29 | SW-4 , 0-7' | Soluble | Solid | DI Leach | |
| 880-21717-30 | SW-5 , 0-7' | Soluble | Solid | DI Leach | |
| MB 880-39795/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-39795/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-39795/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-21717-11 MS | C-100 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-11 MSD | C-100 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-21 MS | C-110 , 7' | Soluble | Solid | DI Leach | |
| 880-21717-21 MSD | C-110 , 7' | Soluble | Solid | DI Leach | |

### Leach Batch: 39796

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-31 | SW-6 , 0-7' | Soluble | Solid | DI Leach | |
| 880-21717-32 | SW-7 , 0-5' | Soluble | Solid | DI Leach | |
| 880-21717-33 | SW-8 , 0-7' | Soluble | Solid | DI Leach | |
| MB 880-39796/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-39796/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-39796/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-21717-31 MS | SW-6 , 0-7' | Soluble | Solid | DI Leach | |
| 880-21717-31 MSD | SW-6 , 0-7' | Soluble | Solid | DI Leach | |

### Analysis Batch: 39854

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-31 | SW-6 , 0-7' | Soluble | Solid | 300.0 | 39796 |
| 880-21717-32 | SW-7 , 0-5' | Soluble | Solid | 300.0 | 39796 |
| 880-21717-33 | SW-8 , 0-7' | Soluble | Solid | 300.0 | 39796 |
| MB 880-39796/1-A | Method Blank | Soluble | Solid | 300.0 | 39796 |
| LCS 880-39796/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 39796 |
| LCSD 880-39796/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 39796 |
| 880-21717-31 MS | SW-6 , 0-7' | Soluble | Solid | 300.0 | 39796 |
| 880-21717-31 MSD | SW-6 , 0-7' | Soluble | Solid | 300.0 | 39796 |

### Analysis Batch: 39855

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-1 | C-90, 5.5 | Soluble | Solid | 300.0 | 39793 |
| 880-21717-2 | C-91, 5.5 | Soluble | Solid | 300.0 | 39793 |
| 880-21717-3 | C-92 , 7' | Soluble | Solid | 300.0 | 39793 |
| 880-21717-4 | C-93 , 7' | Soluble | Solid | 300.0 | 39793 |
| 880-21717-5 | C-94 , 7' | Soluble | Solid | 300.0 | 39793 |
| 880-21717-6 | C-95 , 7' | Soluble | Solid | 300.0 | 39793 |
| 880-21717-7 | C-96 , 7' | Soluble | Solid | 300.0 | 39793 |
| 880-21717-8 | C-97 , 7' | Soluble | Solid | 300.0 | 39793 |
| 880-21717-9 | C-98 , 7' | Soluble | Solid | 300.0 | 39793 |
| 880-21717-10 | C-99 , 7' | Soluble | Solid | 300.0 | 39793 |
| MB 880-39793/1-A | Method Blank | Soluble | Solid | 300.0 | 39793 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## HPLC/IC (Continued)

### Analysis Batch: 39855 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 880-39793/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 39793 |
| LCSD 880-39793/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 39793 |
| 880-21717-1 MS | C-90, 5.5 | Soluble | Solid | 300.0 | 39793 |
| 880-21717-1 MSD | C-90, 5.5 | Soluble | Solid | 300.0 | 39793 |

### Analysis Batch: 39857

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-21717-11 | C-100 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-12 | C-101 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-13 | C-102 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-14 | C-103 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-15 | C-104 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-16 | C-105 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-17 | C-106 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-18 | C-107 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-19 | C-108 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-20 | C-109 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-21 | C-110 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-22 | C-111 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-23 | C-112 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-24 | C-113 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-25 | C-114 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-26 | C-115 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-27 | SW-2 , 0-5' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-28 | SW-3 , 0-5' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-29 | SW-4 , 0-7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-30 | SW-5 , 0-7' | Soluble | Solid | 300.0 | 39795 |
| MB 880-39795/1-A | Method Blank | Soluble | Solid | 300.0 | 39795 |
| LCS 880-39795/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 39795 |
| LCSD 880-39795/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 39795 |
| 880-21717-11 MS | C-100 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-11 MSD | C-100 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-21 MS | C-110 , 7' | Soluble | Solid | 300.0 | 39795 |
| 880-21717-21 MSD | C-110 , 7' | Soluble | Solid | 300.0 | 39795 |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-90, 5.5
**Date Collected: 11/16/22 15:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-1
**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 | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/17/22 19:25 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 11:07 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 39793 | 11/17/22 11:56 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39855 | 11/18/22 08:42 | SMC | EET MID |

## Client Sample ID: C-91, 5.5
**Date Collected: 11/16/22 15:35**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-2
**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 | | | 5.02 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/17/22 19:51 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 12:12 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 39793 | 11/17/22 11:56 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39855 | 11/18/22 08:59 | SMC | EET MID |

## Client Sample ID: C-92 , 7'
**Date Collected: 11/16/22 15:40**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-3
**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 | | | 4.98 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/17/22 21:34 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 12:35 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 39793 | 11/17/22 11:56 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39855 | 11/18/22 09:05 | SMC | EET MID |

## Client Sample ID: C-93 , 7'
**Date Collected: 11/16/22 15:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-4
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.02 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/17/22 22:00 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |

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# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-93 , 7'
**Date Collected: 11/16/22 15:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-4**
**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 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 12:56 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 39793 | 11/17/22 11:56 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39855 | 11/18/22 09:22 | SMC | EET MID |

## Client Sample ID: C-94 , 7'
**Date Collected: 11/16/22 16:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-5**
**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 | | | 5.03 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/17/22 22:26 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 13:18 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 39793 | 11/17/22 11:56 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39855 | 11/18/22 09:27 | SMC | EET MID |

## Client Sample ID: C-95 , 7'
**Date Collected: 11/16/22 16:05**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-6**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.99 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/17/22 22:51 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 13:39 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 39793 | 11/17/22 11:56 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39855 | 11/18/22 09:33 | SMC | EET MID |

## Client Sample ID: C-96 , 7'
**Date Collected: 11/16/22 16:10**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-7**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.98 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/17/22 23:17 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 14:02 | SM | EET MID |

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# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-96 , 7'
**Date Collected: 11/16/22 16:10**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-7**
**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 | | | 5.04 g | 50 mL | 39793 | 11/17/22 11:56 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39855 | 11/18/22 09:39 | SMC | EET MID |

## Client Sample ID: C-97 , 7'
**Date Collected: 11/16/22 16:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-8**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.96 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/17/22 23:43 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 14:24 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 39793 | 11/17/22 11:56 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39855 | 11/18/22 09:44 | SMC | EET MID |

## Client Sample ID: C-98 , 7'
**Date Collected: 11/16/22 16:20**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-9**
**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 | | | 4.97 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/18/22 00:09 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 14:46 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 39793 | 11/17/22 11:56 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39855 | 11/18/22 09:50 | SMC | EET MID |

## Client Sample ID: C-99 , 7'
**Date Collected: 11/16/22 16:25**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-10**
**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 | | | 4.95 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/18/22 00:35 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 15:07 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 39793 | 11/17/22 11:56 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39855 | 11/18/22 09:56 | SMC | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-100 , 7'
**Date Collected: 11/16/22 16:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-11
**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 | | | 5.02 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/18/22 01:01 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 15:51 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39857 | 11/18/22 20:47 | CH | EET MID |

## Client Sample ID: C-101 , 7'
**Date Collected: 11/16/22 16:35**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-12
**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 | | | 5.03 g | 5 mL | 39791 | 11/17/22 11:50 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39800 | 11/18/22 01:26 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/22/22 17:04 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 16:13 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39857 | 11/18/22 21:04 | CH | EET MID |

## Client Sample ID: C-102 , 7'
**Date Collected: 11/16/22 16:40**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-13
**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 | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 11:45 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 14:30 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 16:35 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 21:10 | CH | EET MID |

## Client Sample ID: C-103 , 7'
**Date Collected: 11/16/22 16:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-14
**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 | | | 5.02 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 12:06 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 14:30 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-103 , 7'
**Date Collected: 11/16/22 16:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-14
**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 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 16:57 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39857 | 11/18/22 21:15 | CH | EET MID |

## Client Sample ID: C-104 , 7'
**Date Collected: 11/16/22 16:50**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-15
**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 | | | 5.05 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 12:26 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 14:30 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 17:18 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 21:21 | CH | EET MID |

## Client Sample ID: C-105 , 7'
**Date Collected: 11/16/22 08:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-16
**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 | | | 4.99 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 12:47 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 14:30 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 17:41 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39857 | 11/18/22 21:38 | CH | EET MID |

## Client Sample ID: C-106 , 7'
**Date Collected: 11/16/22 08:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-17
**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 | | | 4.97 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 13:08 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 14:30 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 18:02 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-106 , 7'
**Date Collected: 11/16/22 08:45**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-17**
**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 | | | 5.02 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39857 | 11/18/22 21:44 | CH | EET MID |

## Client Sample ID: C-107 , 7'
**Date Collected: 11/16/22 09:00**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-18**
**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 | | | 5.02 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 13:28 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 14:30 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 18:23 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 21:49 | CH | EET MID |

## Client Sample ID: C-108 , 7'
**Date Collected: 11/16/22 09:15**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-19**
**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 | | | 5.03 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 13:49 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 14:30 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 18:45 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 21:55 | CH | EET MID |

## Client Sample ID: C-109 , 7'
**Date Collected: 11/16/22 09:30**
**Date Received: 11/17/22 10:33**

**Lab Sample ID: 880-21717-20**
**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 | | | 4.96 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 15:10 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 16:28 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 10:45 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39822 | 11/17/22 13:55 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39876 | 11/18/22 19:07 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 22:01 | CH | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-110 , 7'
**Date Collected: 11/16/22 09:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-21
**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 | | | 5.01 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 15:31 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 16:28 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 14:14 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 22:06 | CH | EET MID |

## Client Sample ID: C-111 , 7'
**Date Collected: 11/16/22 10:00**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-22
**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 | | | 5.02 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 15:51 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 16:28 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 14:36 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 22:23 | CH | EET MID |

## Client Sample ID: C-112 , 7'
**Date Collected: 11/16/22 10:15**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-23
**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 | | | 5.00 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 17:15 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/21/22 14:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 14:58 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39857 | 11/18/22 22:29 | CH | EET MID |

## Client Sample ID: C-113 , 7'
**Date Collected: 11/16/22 10:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-24
**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 | | | 4.99 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 17:35 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/21/22 14:45 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: C-113 , 7'
**Date Collected: 11/16/22 10:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-24
**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 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 15:20 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39857 | 11/18/22 22:46 | CH | EET MID |

## Client Sample ID: C-114 , 7'
**Date Collected: 11/16/22 10:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-25
**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 | | | 4.97 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 17:56 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/21/22 14:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 15:42 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 22:52 | CH | EET MID |

## Client Sample ID: C-115 , 7'
**Date Collected: 11/16/22 11:00**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-26
**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 | | | 5.02 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 18:16 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/21/22 14:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 16:26 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 22:57 | CH | EET MID |

## Client Sample ID: SW-2 , 0-5'
**Date Collected: 11/16/22 11:15**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-27
**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 | | | 4.98 g | 5 mL | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 18:37 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/21/22 14:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 16:48 | SM | EET MID |

Eurofins Midland

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: SW-2 , 0-5'
**Date Collected: 11/16/22 11:15**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-27
**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 | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 39857 | 11/18/22 23:03 | CH | EET MID |

## Client Sample ID: SW-3 , 0-5'
**Date Collected: 11/16/22 11:30**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-28
**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 | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 18:58 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/21/22 14:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 17:09 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 23:08 | CH | EET MID |

## Client Sample ID: SW-4 , 0-7'
**Date Collected: 11/16/22 11:45**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-29
**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 | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 19:18 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/21/22 14:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 17:31 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 23:14 | CH | EET MID |

## Client Sample ID: SW-5 , 0-7'
**Date Collected: 11/16/22 12:00**
**Date Received: 11/17/22 10:33**

## Lab Sample ID: 880-21717-30
**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 | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 19:39 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/21/22 14:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 17:53 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 39795 | 11/17/22 11:58 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39857 | 11/18/22 23:20 | CH | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## Client Sample ID: SW-6 , 0-7'

**Lab Sample ID: 880-21717-31**
**Matrix: Solid**
**Date Collected: 11/16/22 12:15**
**Date Received: 11/17/22 10:33**

| 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 | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 20:00 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/21/22 14:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 18:14 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39854 | 11/18/22 08:14 | CH | EET MID |

## Client Sample ID: SW-7 , 0-5'

**Lab Sample ID: 880-21717-32**
**Matrix: Solid**
**Date Collected: 11/16/22 12:30**
**Date Received: 11/17/22 10:33**

| 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 | 39794 | 11/17/22 11:56 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39827 | 11/18/22 20:20 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/21/22 14:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 18:36 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 10 | | | 39854 | 11/18/22 08:36 | CH | EET MID |

## Client Sample ID: SW-8 , 0-7'

**Lab Sample ID: 880-21717-33**
**Matrix: Solid**
**Date Collected: 11/16/22 12:45**
**Date Received: 11/17/22 10:33**

| 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 | 39775 | 11/17/22 12:32 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 39773 | 11/17/22 19:32 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 39921 | 11/18/22 12:11 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 40090 | 11/21/22 11:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 39882 | 11/18/22 07:28 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 39958 | 11/19/22 18:57 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 39796 | 11/17/22 11:59 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 39854 | 11/18/22 08:43 | 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: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

## 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: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

| 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: Culebra Bluff SE 5 32

Job ID: 880-21717-1
SDG: 19-0180-07

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 880-21717-1 | C-90, 5.5 | Solid | 11/16/22 15:30 | 11/17/22 10:33 |
| 880-21717-2 | C-91, 5.5 | Solid | 11/16/22 15:35 | 11/17/22 10:33 |
| 880-21717-3 | C-92 , 7' | Solid | 11/16/22 15:40 | 11/17/22 10:33 |
| 880-21717-4 | C-93 , 7' | Solid | 11/16/22 15:45 | 11/17/22 10:33 |
| 880-21717-5 | C-94 , 7' | Solid | 11/16/22 16:00 | 11/17/22 10:33 |
| 880-21717-6 | C-95 , 7' | Solid | 11/16/22 16:05 | 11/17/22 10:33 |
| 880-21717-7 | C-96 , 7' | Solid | 11/16/22 16:10 | 11/17/22 10:33 |
| 880-21717-8 | C-97 , 7' | Solid | 11/16/22 16:15 | 11/17/22 10:33 |
| 880-21717-9 | C-98 , 7' | Solid | 11/16/22 16:20 | 11/17/22 10:33 |
| 880-21717-10 | C-99 , 7' | Solid | 11/16/22 16:25 | 11/17/22 10:33 |
| 880-21717-11 | C-100 , 7' | Solid | 11/16/22 16:30 | 11/17/22 10:33 |
| 880-21717-12 | C-101 , 7' | Solid | 11/16/22 16:35 | 11/17/22 10:33 |
| 880-21717-13 | C-102 , 7' | Solid | 11/16/22 16:40 | 11/17/22 10:33 |
| 880-21717-14 | C-103 , 7' | Solid | 11/16/22 16:45 | 11/17/22 10:33 |
| 880-21717-15 | C-104 , 7' | Solid | 11/16/22 16:50 | 11/17/22 10:33 |
| 880-21717-16 | C-105 , 7' | Solid | 11/16/22 08:30 | 11/17/22 10:33 |
| 880-21717-17 | C-106 , 7' | Solid | 11/16/22 08:45 | 11/17/22 10:33 |
| 880-21717-18 | C-107 , 7' | Solid | 11/16/22 09:00 | 11/17/22 10:33 |
| 880-21717-19 | C-108 , 7' | Solid | 11/16/22 09:15 | 11/17/22 10:33 |
| 880-21717-20 | C-109 , 7' | Solid | 11/16/22 09:30 | 11/17/22 10:33 |
| 880-21717-21 | C-110 , 7' | Solid | 11/16/22 09:45 | 11/17/22 10:33 |
| 880-21717-22 | C-111 , 7' | Solid | 11/16/22 10:00 | 11/17/22 10:33 |
| 880-21717-23 | C-112 , 7' | Solid | 11/16/22 10:15 | 11/17/22 10:33 |
| 880-21717-24 | C-113 , 7' | Solid | 11/16/22 10:30 | 11/17/22 10:33 |
| 880-21717-25 | C-114 , 7' | Solid | 11/16/22 10:45 | 11/17/22 10:33 |
| 880-21717-26 | C-115 , 7' | Solid | 11/16/22 11:00 | 11/17/22 10:33 |
| 880-21717-27 | SW-2 , 0-5' | Solid | 11/16/22 11:15 | 11/17/22 10:33 |
| 880-21717-28 | SW-3 , 0-5' | Solid | 11/16/22 11:30 | 11/17/22 10:33 |
| 880-21717-29 | SW-4 , 0-7' | Solid | 11/16/22 11:45 | 11/17/22 10:33 |
| 880-21717-30 | SW-5 , 0-7' | Solid | 11/16/22 12:00 | 11/17/22 10:33 |
| 880-21717-31 | SW-6 , 0-7' | Solid | 11/16/22 12:15 | 11/17/22 10:33 |
| 880-21717-32 | SW-7 , 0-5' | Solid | 11/16/22 12:30 | 11/17/22 10:33 |
| 880-21717-33 | SW-8 , 0-7' | Solid | 11/16/22 12:45 | 11/17/22 10:33 |

Released to Imaging: 6/25/2024 3:21:21 PM
Received by OCD: 5/8/2024 11:20:33 AM

21717 No. 2869

# CHAIN-OF-CUSTODY

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

DATE 11/17/2022 PAGE 1 OF 3
PO# LAB WORK ORDER#
PROJECT LOCATION OR NAME Culebra Bluff SE S 32
LAI PROJECT # 19-0180-07 COLLECTOR JH

Data Reported to

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 | UNPRESERVED

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

| Field Sample I D | Lab # | Date | Time | Matrix | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESERVED | BTEX ☒ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☒ | CHLORIDES ☒ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-90, 5.5 | | 11/15/22 | 1530 | S | 1 | | | | X | | X | X | X | X | X | 202 |
| C-91, 5.5 | | | 1535 | | | | | | | | | | | | | |
| C-92, 7' | | | 1540 | | | | | | | | | | | | | |
| C-93, 7' | | | 1545 | | | | | | | | | | | | | |
| C-94, 7' | | | 1600 | | | | | | | | | | | | | |
| C-95, 7' | | | 1605 | | | | | | | | | | | | | |
| C-96, 7' | | | 1610 | | | | | | | | | | | | | |
| C-97, 7' | | | 1615 | | | | | | | | | | | | | |
| C-98, 7' | | | 1620 | | | | | | | | | | | | | |
| C-99, 7' | | | 1625 | | | | | | | | | | | | | |
| C-100, 7' | | | 1630 | | | | | | | | | | | | | |
| C-101, 7' | | | 1635 | | | | | | | | | | | | | |
| C-102, 7' | | | 1640 | | | | | | | | | | | | | |
| C-103, 7' | | | 1645 | | | | | | | | | | | | | |
| C-104, 7 | | | 1650 | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | |

880-21717 Chain of Custody

| | | |
|---|---|---|
| RELINQUISHED BY (Signature) | DATE/TIME 11/17/22 1033 | 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 -4.4/-4.1 THERM# CF0 -30
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

Released to Imaging: 6/25/2024 3:21:21 PM
Received by OCD: 5/8/2024 11:20:33 AM

21717 No. 2870

# CHAIN-OF-CUSTODY

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

Data Reported to

DATE 11/17/2022 PAGE 2 OF 3
PO# _____ LAB WORK ORDER# _____
PROJECT LOCATION OR NAME. Culebra Bluff SE 5 32
LAI PROJECT # 19-0180-07 COLLECTOR JH

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 | UNPRESERVED

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

| Field Sample I D | Lab # | Date | Time | Matrix | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ NaOH | ICE | UNPRESSERVED | BTEX | GASOLINE MOD 8015 | DIESEL - MOD 8015 | OIL - MOD 8015 | CHLORIDE | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-105, 7' | | 11/16/22 | 0830 | S | 1 | | | | X | | X | X | X | X | X | |
| C-106, 7' | | " | 0845 | " | " | | | | " | | " | " | " | " | " | |
| C-107, 5' | | | 0900 | | | | | | | | | | | | | |
| C-108, 5' | | | 0915 | | | | | | | | | | | | | |
| C-109, 5' | | | 0930 | | | | | | | | | | | | | |
| C-110, 5' | | | 0945 | | | | | | | | | | | | | |
| C-111, 5' | | | 1000 | | | | | | | | | | | | | |
| C-112, 5' | | | 1015 | | | | | | | | | | | | | |
| C-113, 5' | | | 1030 | | | | | | | | | | | | | |
| C-114, 5' | | | 1045 | | | | | | | | | | | | | |
| C-115, 5' | | | 1100 | | | | | | | | | | | | | |
| SW-2, 0-5' | | | 1115 | | | | | | | | | | | | | |
| SW-3, 0-5' | | | 1130 | | | | | | | | | | | | | |
| SW-4, 0-5' | | | 1145 | | | | | | | | | | | | | |
| SW-5, 0-5' | | | 1200 | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | |

| | | |
|---|---|---|
| RELINQUISHED BY (Signature) | DATE/TIME 11/17/22 1033 | 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 -4.4/-4.1 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Released to Imaging: 6/25/2024 3:21:21 PM
Received by OCD: 5/8/2024 11:20:33 AM

2717

No. 2871

# CHAIN-OF-CUSTODY

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

DATE 11/17/2022 PAGE 3 OF 3

PO# _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME Culebra Bluff SE S 32

LAI PROJECT # 19-0180-07 COLLECTOR: JH

Data Reported to

TRRP report? ☐ Yes ☑ No

TIME ZONE Time zone/State: MST NM

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

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

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

| Field Sample I D | Lab # | Date | Time | Matrix | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW-6, 0-7' | | 11/16/22 | 1215 | S | 1 | | | | X | | X X X X X X | |
| SW-7, 0-5' | | 1 | 1230 | 1 | 1 | | | | 1 | | 1 1 1 1 | |
| SW-8, 0-7' | | 1 | 1245 | 1 | 1 | | | | 1 | | 1 1 1 1 | |

Loc: 880
21717

TOTAL

RELINQUISHED BY (Signature) DATE/TIME 11/17/22 1033 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 _____ THERM# _____
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

# Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-21717-1
SDG Number: 19-0180-07

**Login Number: 21717**
**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 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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11/22/2022 5:42:00 PM

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

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 4/3/2023 4:13:28 PM

## JOB DESCRIPTION

CBBF/Culebre Buff Backfill
SDG NUMBER 19-0180-07

## JOB NUMBER

880-26425-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.



Released to Imaging: 6/25/2024 3:21:21 PM

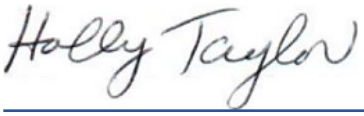
my EOL

# 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



Generated
4/3/2023 4:13:28 PM

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

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Laboratory Job ID: 880-26425-1
SDG: 19-0180-07

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# Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## 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 |
|---|---|
| *1 | LCS/LCSD RPD 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. |

### 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: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## Job ID: 880-26425-1

**Laboratory: Eurofins Midland**

**Narrative**

**Job Narrative**
**880-26425-1**

**Receipt**
The samples were received on 3/28/2023 8:57 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 1.3°C

**Receipt Exceptions**
The following samples were received and analyzed from an unpreserved bulk soil jar: TX 8015

**GC VOA**
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-49868 and analytical batch 880-49998 was outside the 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: Surrogate recovery for the following samples were outside control limits: (LCS 880-49734/2-A) and (LCSD 880-49734/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-49734 and analytical batch 880-49779 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-26425-A-14-C MS) and (880-26425-A-14-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-49755 and analytical batch 880-49777 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.

**HPLC/IC**
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-49714 and 880-49714 and analytical batch 880-49825 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.BF-1 (880-26425-1), BF-2 (880-26425-2), BF-3 (880-26425-3), BF-5 (880-26425-5), BF-6 (880-26425-6), BF-7 (880-26425-7), BF-8 (880-26425-8) and BF-9 (880-26425-9)

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: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## Client Sample ID: BF-1 Lab Sample ID: 880-26425-1

**Date Collected: 03/27/23 11:00** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 15:38 | 04/01/23 19:36 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 19:36 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 19:36 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 19:36 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 19:36 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 19:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *116* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 19:36* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 19:36* | *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 | | | 04/03/23 16:27 | 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 | | | 03/29/23 17:17 | 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 | <50.0 | U *1 | 50.0 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 16:51 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 16:51 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 16:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *84* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 16:51* | *1* |
| *o-Terphenyl (Surr)* | *91* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 16:51* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **687** | | 5.01 | | mg/Kg | | | 03/28/23 16:05 | 1 |

## Client Sample ID: BF-2 Lab Sample ID: 880-26425-2

**Date Collected: 03/27/23 11:05** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 15:38 | 04/01/23 20:02 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 20:02 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 20:02 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 20:02 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 20:02 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 20:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *122* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 20:02* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 20:02* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## Client Sample ID: BF-2 Lab Sample ID: 880-26425-2

**Date Collected: 03/27/23 11:05** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | | 04/03/23 16:27 | 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 | | | 03/29/23 22:12 | 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 *1 | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 17:13 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 17:13 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 17:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *83* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 17:13* | *1* |
| *o-Terphenyl (Surr)* | *90* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 17:13* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **535** | | 5.00 | | mg/Kg | | | 03/28/23 16:09 | 1 |

## Client Sample ID: BF-3 Lab Sample ID: 880-26425-3

**Date Collected: 03/27/23 11:10** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 15:38 | 04/01/23 21:47 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 21:47 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 21:47 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 21:47 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 21:47 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 21:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 21:47* | *1* |
| *1,4-Difluorobenzene (Surr)* | *87* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 21:47* | *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 | | | 04/03/23 16:27 | 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 | | | 03/29/23 22:12 | 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 *1 | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 17:35 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 17:35 | 1 |

Eurofins Midland

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## Client Sample ID: BF-3 Lab Sample ID: 880-26425-3

**Date Collected: 03/27/23 11:10** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 17:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *82* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 17:35* | *1* |
| *o-Terphenyl (Surr)* | *90* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 17:35* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **513** | | 5.00 | | mg/Kg | | | 03/28/23 16:14 | 1 |

## Client Sample ID: BF-5 Lab Sample ID: 880-26425-5

**Date Collected: 03/27/23 11:20** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 15:38 | 04/01/23 22:14 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 22:14 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 22:14 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 22:14 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 22:14 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 22:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *105* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 22:14* | *1* |
| *1,4-Difluorobenzene (Surr)* | *87* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 22:14* | *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 | | | 04/03/23 16:27 | 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 | | | 03/29/23 22:12 | 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 *1 | 50.0 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 17:57 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 17:57 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 17:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *81* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 17:57* | *1* |
| *o-Terphenyl (Surr)* | *90* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 17:57* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1040** | | 4.97 | | mg/Kg | | | 03/28/23 16:28 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## Client Sample ID: BF-6 Lab Sample ID: 880-26425-6

**Date Collected: 03/27/23 11:25** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 15:38 | 04/01/23 22:40 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 22:40 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 22:40 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 22:40 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 22:40 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 22:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 22:40* | *1* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 22:40* | *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 | | | 04/03/23 16:27 | 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 | | | 03/29/23 22:12 | 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 *1 | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 18:19 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 18:19 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 18:19 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *86* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 18:19* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 18:19* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1300** | | 24.8 | | mg/Kg | | | 03/28/23 16:32 | 5 |

## Client Sample ID: BF-7 Lab Sample ID: 880-26425-7

**Date Collected: 03/27/23 11:30** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 15:38 | 04/01/23 23:05 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:05 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:05 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:05 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:05 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 23:05* | *1* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 23:05* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## Client Sample ID: BF-7

**Date Collected: 03/27/23 11:30**
**Date Received: 03/28/23 08:57**

**Lab Sample ID: 880-26425-7**
**Matrix: Solid**

### 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 | | | 04/03/23 16:27 | 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 | | | 03/29/23 22:12 | 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 *1 | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 18:41 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 18:41 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 18:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *88* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 18:41* | *1* |
| *o-Terphenyl (Surr)* | *97* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 18:41* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **701** | | 4.95 | | mg/Kg | | | 03/28/23 16:37 | 1 |

## Client Sample ID: BF-8

**Date Collected: 03/27/23 11:35**
**Date Received: 03/28/23 08:57**

**Lab Sample ID: 880-26425-8**
**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 | | 03/29/23 15:38 | 04/01/23 23:31 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:31 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:31 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:31 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:31 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 23:31* | *1* |
| *1,4-Difluorobenzene (Surr)* | *88* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 23:31* | *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 | | | 04/03/23 16:27 | 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 | | | 03/29/23 22:12 | 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 *1 | 50.0 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 19:03 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 19:03 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## Client Sample ID: BF-8 Lab Sample ID: 880-26425-8

**Date Collected: 03/27/23 11:35** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/28/23 11:43 | 03/29/23 19:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 19:03* | *1* |
| *o-Terphenyl (Surr)* | *110* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 19:03* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **69.2** | | 5.02 | | mg/Kg | | | 03/28/23 16:41 | 1 |

## Client Sample ID: BF-9 Lab Sample ID: 880-26425-9

**Date Collected: 03/27/23 11:40** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 15:38 | 04/01/23 23:58 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:58 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:58 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:58 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:58 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 23:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 23:58* | *1* |
| *1,4-Difluorobenzene (Surr)* | *89* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 23:58* | *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 | | | 04/03/23 16:27 | 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 | | | 03/29/23 22:12 | 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 *1 | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 19:25 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 19:25 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 11:43 | 03/29/23 19:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *88* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 19:25* | *1* |
| *o-Terphenyl (Surr)* | *96* | | *70 - 130* | *03/28/23 11:43* | *03/29/23 19:25* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **296** | | 5.04 | | mg/Kg | | | 03/28/23 16:46 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## Client Sample ID: BF-10

**Date Collected: 03/27/23 11:45**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-10

**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 | | 03/29/23 15:38 | 04/02/23 00:24 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 00:24 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 00:24 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 00:24 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 00:24 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 00:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* | *03/29/23 15:38* | *04/02/23 00:24* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *03/29/23 15:38* | *04/02/23 00:24* | *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 | | | 04/03/23 16:27 | 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 | | | 03/30/23 12:51 | 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 | | 03/28/23 13:32 | 03/29/23 22:20 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 22:20 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 22:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *110* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 22:20* | *1* |
| *o-Terphenyl (Surr)* | *106* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 22:20* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **317** | | 5.05 | | mg/Kg | | | 03/28/23 16:50 | 1 |

## Client Sample ID: BF-11

**Date Collected: 03/27/23 11:50**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-11

**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 | | 03/29/23 15:38 | 04/02/23 00:50 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 00:50 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 00:50 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 00:50 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 00:50 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 00:50 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *117* | | *70 - 130* | *03/29/23 15:38* | *04/02/23 00:50* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *03/29/23 15:38* | *04/02/23 00:50* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## Client Sample ID: BF-11 Lab Sample ID: 880-26425-11

**Date Collected: 03/27/23 11:50** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | | 04/03/23 16:27 | 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 | | | 03/30/23 12:51 | 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 | | 03/28/23 13:32 | 03/29/23 22:41 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 22:41 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 22:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *86* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 22:41* | *1* |
| *o-Terphenyl (Surr)* | *86* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 22:41* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **153** | | 4.97 | | mg/Kg | | | 03/28/23 17:04 | 1 |

## Client Sample ID: BF-12 Lab Sample ID: 880-26425-12

**Date Collected: 03/27/23 11:55** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 15:38 | 04/02/23 01:16 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 01:16 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 01:16 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 01:16 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 01:16 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 01:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *70 - 130* | *03/29/23 15:38* | *04/02/23 01:16* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *03/29/23 15:38* | *04/02/23 01:16* | *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 | | | 04/03/23 16:27 | 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 | | | 03/30/23 12:51 | 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 | | 03/28/23 13:32 | 03/29/23 23:03 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 23:03 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## Client Sample ID: BF-12 Lab Sample ID: 880-26425-12

**Date Collected: 03/27/23 11:55** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 23:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *89* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 23:03* | *1* |
| *o-Terphenyl (Surr)* | *90* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 23:03* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **276** | | 4.96 | | mg/Kg | | | 03/28/23 17:08 | 1 |

## Client Sample ID: BF-13 Lab Sample ID: 880-26425-13

**Date Collected: 03/27/23 12:00** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 15:38 | 04/02/23 01:42 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 01:42 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 01:42 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 01:42 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 01:42 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 15:38 | 04/02/23 01:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *125* | | *70 - 130* | *03/29/23 15:38* | *04/02/23 01:42* | *1* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *03/29/23 15:38* | *04/02/23 01:42* | *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 | | | 04/03/23 16:27 | 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 | | | 03/30/23 12:51 | 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 | | 03/28/23 13:32 | 03/29/23 23:24 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 23:24 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 23:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *93* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 23:24* | *1* |
| *o-Terphenyl (Surr)* | *96* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 23:24* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **76.5** | | 5.02 | | mg/Kg | | | 03/28/23 17:22 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## Client Sample ID: BF-14 Lab Sample ID: 880-26425-14

**Date Collected: 03/27/23 12:05** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 16:16 | 04/01/23 12:23 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 12:23 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 12:23 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 12:23 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 12:23 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 12:23 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *94* | | *70 - 130* | *03/29/23 16:16* | *04/01/23 12:23* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *03/29/23 16:16* | *04/01/23 12:23* | *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 | | | 04/03/23 16:44 | 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 | | | 03/30/23 12:51 | 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 F2 | 49.9 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 21:14 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 21:14 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 21:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *86* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 21:14* | *1* |
| *o-Terphenyl (Surr)* | *87* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 21:14* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **217** | | 5.03 | | mg/Kg | | | 03/28/23 17:27 | 1 |

## Client Sample ID: BF-15 Lab Sample ID: 880-26425-15

**Date Collected: 03/27/23 12:10** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | 03/29/23 16:16 | 04/01/23 12:44 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 12:44 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 12:44 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 12:44 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 12:44 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 12:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* | *03/29/23 16:16* | *04/01/23 12:44* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *03/29/23 16:16* | *04/01/23 12:44* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## Client Sample ID: BF-15 Lab Sample ID: 880-26425-15

**Date Collected: 03/27/23 12:10** **Matrix: Solid**
**Date Received: 03/28/23 08:57**

### 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 | | | 04/03/23 16:44 | 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 | | | 03/30/23 12:51 | 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 | | 03/28/23 13:32 | 03/29/23 23:46 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 23:46 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 23:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *87* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 23:46* | *1* |
| *o-Terphenyl (Surr)* | *89* | | *70 - 130* | *03/28/23 13:32* | *03/29/23 23:46* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **10.6** | | 5.00 | | mg/Kg | | | 03/28/23 17:31 | 1 |

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## 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) | | | | | | | | | | |
| 880-26425-1 | BF-1 | 116 | 103 | | | | | | | | | | |
| 880-26425-2 | BF-2 | 122 | 107 | | | | | | | | | | |
| 880-26425-3 | BF-3 | 102 | 87 | | | | | | | | | | |
| 880-26425-5 | BF-5 | 105 | 87 | | | | | | | | | | |
| 880-26425-6 | BF-6 | 103 | 91 | | | | | | | | | | |
| 880-26425-7 | BF-7 | 115 | 95 | | | | | | | | | | |
| 880-26425-8 | BF-8 | 104 | 88 | | | | | | | | | | |
| 880-26425-9 | BF-9 | 113 | 89 | | | | | | | | | | |
| 880-26425-10 | BF-10 | 113 | 93 | | | | | | | | | | |
| 880-26425-11 | BF-11 | 117 | 102 | | | | | | | | | | |
| 880-26425-12 | BF-12 | 115 | 93 | | | | | | | | | | |
| 880-26425-13 | BF-13 | 125 | 101 | | | | | | | | | | |
| 880-26425-14 | BF-14 | 94 | 106 | | | | | | | | | | |
| 880-26425-14 MS | BF-14 | 100 | 104 | | | | | | | | | | |
| 880-26425-14 MSD | BF-14 | 100 | 107 | | | | | | | | | | |
| 880-26425-15 | BF-15 | 103 | 103 | | | | | | | | | | |
| LCS 880-49868/1-A | Lab Control Sample | 103 | 95 | | | | | | | | | | |
| LCS 880-49879/1-A | Lab Control Sample | 101 | 111 | | | | | | | | | | |
| LCSD 880-49868/2-A | Lab Control Sample Dup | 95 | 106 | | | | | | | | | | |
| LCSD 880-49879/2-A | Lab Control Sample Dup | 97 | 109 | | | | | | | | | | |
| MB 880-49868/5-A | Method Blank | 65 S1- | 86 | | | | | | | | | | |
| MB 880-49879/5-A | Method Blank | 90 | 99 | | | | | | | | | | |
| MB 880-49940/5-A | Method Blank | 94 | 101 | | | | | | | | | | |

**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) | | | | | | | | | | |
| 880-26425-1 | BF-1 | 84 | 91 | | | | | | | | | | |
| 880-26425-2 | BF-2 | 83 | 90 | | | | | | | | | | |
| 880-26425-3 | BF-3 | 82 | 90 | | | | | | | | | | |
| 880-26425-5 | BF-5 | 81 | 90 | | | | | | | | | | |
| 880-26425-6 | BF-6 | 86 | 95 | | | | | | | | | | |
| 880-26425-7 | BF-7 | 88 | 97 | | | | | | | | | | |
| 880-26425-8 | BF-8 | 103 | 110 | | | | | | | | | | |
| 880-26425-9 | BF-9 | 88 | 96 | | | | | | | | | | |
| 880-26425-10 | BF-10 | 110 | 106 | | | | | | | | | | |
| 880-26425-11 | BF-11 | 86 | 86 | | | | | | | | | | |
| 880-26425-12 | BF-12 | 89 | 90 | | | | | | | | | | |
| 880-26425-13 | BF-13 | 93 | 96 | | | | | | | | | | |
| 880-26425-14 | BF-14 | 86 | 87 | | | | | | | | | | |
| 880-26425-14 MS | BF-14 | 14 S1- | 8 S1- | | | | | | | | | | |
| 880-26425-14 MSD | BF-14 | 16 S1- | 9 S1- | | | | | | | | | | |
| 880-26425-15 | BF-15 | 87 | 89 | | | | | | | | | | |

# Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## 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) | | | | | | | | |
| LCS 880-49734/2-A | Lab Control Sample | 132 S1+ | 154 S1+ | | | | | | | | |
| LCS 880-49755/2-A | Lab Control Sample | 111 | 115 | | | | | | | | |
| LCSD 880-49734/3-A | Lab Control Sample Dup | 122 | 132 S1+ | | | | | | | | |
| LCSD 880-49755/3-A | Lab Control Sample Dup | 112 | 119 | | | | | | | | |
| MB 880-49734/1-A | Method Blank | 115 | 127 | | | | | | | | |
| MB 880-49755/1-A | Method Blank | 119 | 124 | | | | | | | | |

**Surrogate Legend**

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-49868/5-A**
**Matrix: Solid**
**Analysis Batch: 49998**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 49868**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 15:42 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 15:42 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 15:42 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 15:42 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 15:42 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 03/29/23 15:38 | 04/01/23 15:42 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *65* | *S1-* | *70 - 130* | *03/29/23 15:38* | *04/01/23 15:42* | *1* |
| *1,4-Difluorobenzene (Surr)* | *86* | | *70 - 130* | *03/29/23 15:38* | *04/01/23 15:42* | *1* |

**Lab Sample ID: LCS 880-49868/1-A**
**Matrix: Solid**
**Analysis Batch: 49998**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 49868**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1246 | | mg/Kg | | 125 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.1207 | | mg/Kg | | 121 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.1229 | | mg/Kg | | 123 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.2486 | | mg/Kg | | 124 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.1246 | | mg/Kg | | 125 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* |

**Lab Sample ID: LCSD 880-49868/2-A**
**Matrix: Solid**
**Analysis Batch: 49998**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 49868**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1204 | | mg/Kg | | 120 | 70 - 130 | 3 | 35 |
| Toluene | | | 0.100 | 0.1059 | | mg/Kg | | 106 | 70 - 130 | 13 | 35 |
| Ethylbenzene | | | 0.100 | 0.1086 | | mg/Kg | | 109 | 70 - 130 | 12 | 35 |
| m,p-Xylenes | | | 0.200 | 0.2195 | | mg/Kg | | 110 | 70 - 130 | 12 | 35 |
| o-Xylene | | | 0.100 | 0.1100 | | mg/Kg | | 110 | 70 - 130 | 12 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* |

**Lab Sample ID: MB 880-49879/5-A**
**Matrix: Solid**
**Analysis Batch: 50015**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 49879**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 11:55 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 11:55 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-49879/5-A**
**Matrix: Solid**
**Analysis Batch: 50015**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 49879**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 11:55 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 11:55 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 11:55 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 03/29/23 16:16 | 04/01/23 11:55 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *70 - 130* | *03/29/23 16:16* | *04/01/23 11:55* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *03/29/23 16:16* | *04/01/23 11:55* | *1* |

**Lab Sample ID: LCS 880-49879/1-A**
**Matrix: Solid**
**Analysis Batch: 50015**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 49879**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1058 | | mg/Kg | | 106 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.1013 | | mg/Kg | | 101 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.09189 | | mg/Kg | | 92 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.1817 | | mg/Kg | | 91 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.09300 | | mg/Kg | | 93 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *111* | | *70 - 130* |

**Lab Sample ID: LCSD 880-49879/2-A**
**Matrix: Solid**
**Analysis Batch: 50015**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 49879**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1041 | | mg/Kg | | 104 | 70 - 130 | 2 | 35 |
| Toluene | | | 0.100 | 0.1004 | | mg/Kg | | 100 | 70 - 130 | 1 | 35 |
| Ethylbenzene | | | 0.100 | 0.08952 | | mg/Kg | | 90 | 70 - 130 | 3 | 35 |
| m,p-Xylenes | | | 0.200 | 0.1763 | | mg/Kg | | 88 | 70 - 130 | 3 | 35 |
| o-Xylene | | | 0.100 | 0.09037 | | mg/Kg | | 90 | 70 - 130 | 3 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *97* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* |

**Lab Sample ID: 880-26425-14 MS**
**Matrix: Solid**
**Analysis Batch: 50015**

**Client Sample ID: BF-14**
**Prep Type: Total/NA**
**Prep Batch: 49879**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.0998 | 0.08022 | | mg/Kg | | 80 | 70 - 130 | | |
| Toluene | <0.00199 | U | 0.0998 | 0.07856 | | mg/Kg | | 79 | 70 - 130 | | |
| Ethylbenzene | <0.00199 | U | 0.0998 | 0.07081 | | mg/Kg | | 71 | 70 - 130 | | |
| m,p-Xylenes | <0.00398 | U | 0.200 | 0.1397 | | mg/Kg | | 70 | 70 - 130 | | |

# QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

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

**Lab Sample ID: 880-26425-14 MS** **Client Sample ID: BF-14**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 50015** **Prep Batch: 49879**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | <0.00199 | U | 0.0998 | 0.07374 | | mg/Kg | | 74 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* |

**Lab Sample ID: 880-26425-14 MSD** **Client Sample ID: BF-14**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 50015** **Prep Batch: 49879**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.0990 | 0.09383 | | mg/Kg | | 95 | 70 - 130 | 16 | 35 |
| Toluene | <0.00199 | U | 0.0990 | 0.08598 | | mg/Kg | | 87 | 70 - 130 | 9 | 35 |
| Ethylbenzene | <0.00199 | U | 0.0990 | 0.07871 | | mg/Kg | | 79 | 70 - 130 | 11 | 35 |
| m,p-Xylenes | <0.00398 | U | 0.198 | 0.1515 | | mg/Kg | | 77 | 70 - 130 | 8 | 35 |
| o-Xylene | <0.00199 | U | 0.0990 | 0.08154 | | mg/Kg | | 82 | 70 - 130 | 10 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* |

**Lab Sample ID: MB 880-49940/5-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 50015** **Prep Batch: 49940**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | mg/Kg | | 03/30/23 12:57 | 04/01/23 00:19 | 1 |
| Toluene | <0.00200 | U | 0.00200 | mg/Kg | | 03/30/23 12:57 | 04/01/23 00:19 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | mg/Kg | | 03/30/23 12:57 | 04/01/23 00:19 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | mg/Kg | | 03/30/23 12:57 | 04/01/23 00:19 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | mg/Kg | | 03/30/23 12:57 | 04/01/23 00:19 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | mg/Kg | | 03/30/23 12:57 | 04/01/23 00:19 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *94* | | *70 - 130* | *03/30/23 12:57* | *04/01/23 00:19* | *1* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *03/30/23 12:57* | *04/01/23 00:19* | *1* |

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

**Lab Sample ID: MB 880-49734/1-A** **Client Sample ID: Method Blank**
**Matrix: Solid** **Prep Type: Total/NA**
**Analysis Batch: 49779** **Prep Batch: 49734**

| 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 | | 03/28/23 11:43 | 03/29/23 08:17 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | mg/Kg | | 03/28/23 11:43 | 03/29/23 08:17 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | mg/Kg | | 03/28/23 11:43 | 03/29/23 08:17 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

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

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane (Surr) | 115 | | 70 - 130 | 03/28/23 11:43 | 03/29/23 08:17 | 1 |
| o-Terphenyl (Surr) | 127 | | 70 - 130 | 03/28/23 11:43 | 03/29/23 08:17 | 1 |

**Lab Sample ID: LCS 880-49734/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 49779** — **Prep Batch: 49734**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 1114 | | mg/Kg | | 111 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 934.9 | | mg/Kg | | 93 | 70 - 130 | | |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 132 | S1+ | 70 - 130 |
| o-Terphenyl (Surr) | 154 | S1+ | 70 - 130 |

**Lab Sample ID: LCSD 880-49734/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 49779** — **Prep Batch: 49734**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 893.2 | *1 | mg/Kg | | 89 | 70 - 130 | 22 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 857.1 | | mg/Kg | | 86 | 70 - 130 | 9 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane (Surr) | 122 | | 70 - 130 |
| o-Terphenyl (Surr) | 132 | S1+ | 70 - 130 |

**Lab Sample ID: MB 880-49755/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 49777** — **Prep Batch: 49755**

| 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 | | 03/28/23 13:32 | 03/29/23 20:09 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 20:09 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 03/28/23 13:32 | 03/29/23 20:09 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane (Surr) | 119 | | 70 - 130 | 03/28/23 13:32 | 03/29/23 20:09 | 1 |
| o-Terphenyl (Surr) | 124 | | 70 - 130 | 03/28/23 13:32 | 03/29/23 20:09 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

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

**Lab Sample ID: LCS 880-49755/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 49777** — **Prep Batch: 49755**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 856.4 | | mg/Kg | | 86 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 863.7 | | mg/Kg | | 86 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *111* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *115* | | *70 - 130* |

**Lab Sample ID: LCSD 880-49755/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 49777** — **Prep Batch: 49755**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 843.1 | | mg/Kg | | 84 | 70 - 130 | 2 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 889.4 | | mg/Kg | | 89 | 70 - 130 | 3 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *112* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *119* | | *70 - 130* |

**Lab Sample ID: 880-26425-14 MS** — **Client Sample ID: BF-14**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 49777** — **Prep Batch: 49755**

| 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 F2 | 998 | 895.3 | | mg/Kg | | 87 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 998 | 872.3 | | mg/Kg | | 87 | 70 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *14* | *S1-* | *70 - 130* |
| *o-Terphenyl (Surr)* | *8* | *S1-* | *70 - 130* |

**Lab Sample ID: 880-26425-14 MSD** — **Client Sample ID: BF-14**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 49777** — **Prep Batch: 49755**

| 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 F2 | 997 | 1221 | F2 | mg/Kg | | 119 | 70 - 130 | 31 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 997 | 1006 | | mg/Kg | | 101 | 70 - 130 | 14 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *16* | *S1-* | *70 - 130* |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-26425-14 MSD**
**Matrix: Solid**
**Analysis Batch: 49777**

**Client Sample ID: BF-14**
**Prep Type: Total/NA**
**Prep Batch: 49755**

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| *o-Terphenyl (Surr)* | *9* | *S1-* | *70 - 130* |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-49714/1-A**
**Matrix: Solid**
**Analysis Batch: 49825**

**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 | | | 03/28/23 15:33 | 1 |

**Lab Sample ID: LCS 880-49714/2-A**
**Matrix: Solid**
**Analysis Batch: 49825**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 248.4 | | mg/Kg | | 99 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-49714/3-A**
**Matrix: Solid**
**Analysis Batch: 49825**

**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 | 247.2 | | mg/Kg | | 99 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 880-26425-10 MS**
**Matrix: Solid**
**Analysis Batch: 49825**

**Client Sample ID: BF-10**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 317 | | 253 | 591.6 | | mg/Kg | | 109 | 90 - 110 | | |

**Lab Sample ID: 880-26425-10 MSD**
**Matrix: Solid**
**Analysis Batch: 49825**

**Client Sample ID: BF-10**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 317 | | 253 | 585.5 | | mg/Kg | | 106 | 90 - 110 | 1 | 20 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## GC VOA

### Prep Batch: 49868

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-1 | BF-1 | Total/NA | Solid | 5035 | |
| 880-26425-2 | BF-2 | Total/NA | Solid | 5035 | |
| 880-26425-3 | BF-3 | Total/NA | Solid | 5035 | |
| 880-26425-5 | BF-5 | Total/NA | Solid | 5035 | |
| 880-26425-6 | BF-6 | Total/NA | Solid | 5035 | |
| 880-26425-7 | BF-7 | Total/NA | Solid | 5035 | |
| 880-26425-8 | BF-8 | Total/NA | Solid | 5035 | |
| 880-26425-9 | BF-9 | Total/NA | Solid | 5035 | |
| 880-26425-10 | BF-10 | Total/NA | Solid | 5035 | |
| 880-26425-11 | BF-11 | Total/NA | Solid | 5035 | |
| 880-26425-12 | BF-12 | Total/NA | Solid | 5035 | |
| 880-26425-13 | BF-13 | Total/NA | Solid | 5035 | |
| MB 880-49868/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-49868/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-49868/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |

### Prep Batch: 49879

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-14 | BF-14 | Total/NA | Solid | 5035 | |
| 880-26425-15 | BF-15 | Total/NA | Solid | 5035 | |
| MB 880-49879/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-49879/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-49879/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-26425-14 MS | BF-14 | Total/NA | Solid | 5035 | |
| 880-26425-14 MSD | BF-14 | Total/NA | Solid | 5035 | |

### Prep Batch: 49940

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-49940/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Analysis Batch: 49998

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-1 | BF-1 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-2 | BF-2 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-3 | BF-3 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-5 | BF-5 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-6 | BF-6 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-7 | BF-7 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-8 | BF-8 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-9 | BF-9 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-10 | BF-10 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-11 | BF-11 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-12 | BF-12 | Total/NA | Solid | 8021B | 49868 |
| 880-26425-13 | BF-13 | Total/NA | Solid | 8021B | 49868 |
| MB 880-49868/5-A | Method Blank | Total/NA | Solid | 8021B | 49868 |
| LCS 880-49868/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 49868 |
| LCSD 880-49868/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 49868 |

### Analysis Batch: 50015

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-14 | BF-14 | Total/NA | Solid | 8021B | 49879 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## GC VOA (Continued)

### Analysis Batch: 50015 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-15 | BF-15 | Total/NA | Solid | 8021B | 49879 |
| MB 880-49879/5-A | Method Blank | Total/NA | Solid | 8021B | 49879 |
| MB 880-49940/5-A | Method Blank | Total/NA | Solid | 8021B | 49940 |
| LCS 880-49879/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 49879 |
| LCSD 880-49879/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 49879 |
| 880-26425-14 MS | BF-14 | Total/NA | Solid | 8021B | 49879 |
| 880-26425-14 MSD | BF-14 | Total/NA | Solid | 8021B | 49879 |

### Analysis Batch: 50253

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-1 | BF-1 | Total/NA | Solid | Total BTEX | |
| 880-26425-2 | BF-2 | Total/NA | Solid | Total BTEX | |
| 880-26425-3 | BF-3 | Total/NA | Solid | Total BTEX | |
| 880-26425-5 | BF-5 | Total/NA | Solid | Total BTEX | |
| 880-26425-6 | BF-6 | Total/NA | Solid | Total BTEX | |
| 880-26425-7 | BF-7 | Total/NA | Solid | Total BTEX | |
| 880-26425-8 | BF-8 | Total/NA | Solid | Total BTEX | |
| 880-26425-9 | BF-9 | Total/NA | Solid | Total BTEX | |
| 880-26425-10 | BF-10 | Total/NA | Solid | Total BTEX | |
| 880-26425-11 | BF-11 | Total/NA | Solid | Total BTEX | |
| 880-26425-12 | BF-12 | Total/NA | Solid | Total BTEX | |
| 880-26425-13 | BF-13 | Total/NA | Solid | Total BTEX | |
| 880-26425-14 | BF-14 | Total/NA | Solid | Total BTEX | |
| 880-26425-15 | BF-15 | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Prep Batch: 49734

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-1 | BF-1 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-2 | BF-2 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-3 | BF-3 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-5 | BF-5 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-6 | BF-6 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-7 | BF-7 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-8 | BF-8 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-9 | BF-9 | Total/NA | Solid | 8015NM Prep | |
| MB 880-49734/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-49734/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-49734/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |

### Prep Batch: 49755

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-10 | BF-10 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-11 | BF-11 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-12 | BF-12 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-13 | BF-13 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-14 | BF-14 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-15 | BF-15 | Total/NA | Solid | 8015NM Prep | |
| MB 880-49755/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-49755/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## GC Semi VOA (Continued)

### Prep Batch: 49755 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCSD 880-49755/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-26425-14 MS | BF-14 | Total/NA | Solid | 8015NM Prep | |
| 880-26425-14 MSD | BF-14 | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 49777

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-10 | BF-10 | Total/NA | Solid | 8015B NM | 49755 |
| 880-26425-11 | BF-11 | Total/NA | Solid | 8015B NM | 49755 |
| 880-26425-12 | BF-12 | Total/NA | Solid | 8015B NM | 49755 |
| 880-26425-13 | BF-13 | Total/NA | Solid | 8015B NM | 49755 |
| 880-26425-14 | BF-14 | Total/NA | Solid | 8015B NM | 49755 |
| 880-26425-15 | BF-15 | Total/NA | Solid | 8015B NM | 49755 |
| MB 880-49755/1-A | Method Blank | Total/NA | Solid | 8015B NM | 49755 |
| LCS 880-49755/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 49755 |
| LCSD 880-49755/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 49755 |
| 880-26425-14 MS | BF-14 | Total/NA | Solid | 8015B NM | 49755 |
| 880-26425-14 MSD | BF-14 | Total/NA | Solid | 8015B NM | 49755 |

### Analysis Batch: 49779

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-1 | BF-1 | Total/NA | Solid | 8015B NM | 49734 |
| 880-26425-2 | BF-2 | Total/NA | Solid | 8015B NM | 49734 |
| 880-26425-3 | BF-3 | Total/NA | Solid | 8015B NM | 49734 |
| 880-26425-5 | BF-5 | Total/NA | Solid | 8015B NM | 49734 |
| 880-26425-6 | BF-6 | Total/NA | Solid | 8015B NM | 49734 |
| 880-26425-7 | BF-7 | Total/NA | Solid | 8015B NM | 49734 |
| 880-26425-8 | BF-8 | Total/NA | Solid | 8015B NM | 49734 |
| 880-26425-9 | BF-9 | Total/NA | Solid | 8015B NM | 49734 |
| MB 880-49734/1-A | Method Blank | Total/NA | Solid | 8015B NM | 49734 |
| LCS 880-49734/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 49734 |
| LCSD 880-49734/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 49734 |

### Analysis Batch: 49896

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-1 | BF-1 | Total/NA | Solid | 8015 NM | |
| 880-26425-2 | BF-2 | Total/NA | Solid | 8015 NM | |
| 880-26425-3 | BF-3 | Total/NA | Solid | 8015 NM | |
| 880-26425-5 | BF-5 | Total/NA | Solid | 8015 NM | |
| 880-26425-6 | BF-6 | Total/NA | Solid | 8015 NM | |
| 880-26425-7 | BF-7 | Total/NA | Solid | 8015 NM | |
| 880-26425-8 | BF-8 | Total/NA | Solid | 8015 NM | |
| 880-26425-9 | BF-9 | Total/NA | Solid | 8015 NM | |
| 880-26425-10 | BF-10 | Total/NA | Solid | 8015 NM | |
| 880-26425-11 | BF-11 | Total/NA | Solid | 8015 NM | |
| 880-26425-12 | BF-12 | Total/NA | Solid | 8015 NM | |
| 880-26425-13 | BF-13 | Total/NA | Solid | 8015 NM | |
| 880-26425-14 | BF-14 | Total/NA | Solid | 8015 NM | |
| 880-26425-15 | BF-15 | Total/NA | Solid | 8015 NM | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## HPLC/IC

### Leach Batch: 49714

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-1 | BF-1 | Soluble | Solid | DI Leach | |
| 880-26425-2 | BF-2 | Soluble | Solid | DI Leach | |
| 880-26425-3 | BF-3 | Soluble | Solid | DI Leach | |
| 880-26425-5 | BF-5 | Soluble | Solid | DI Leach | |
| 880-26425-6 | BF-6 | Soluble | Solid | DI Leach | |
| 880-26425-7 | BF-7 | Soluble | Solid | DI Leach | |
| 880-26425-8 | BF-8 | Soluble | Solid | DI Leach | |
| 880-26425-9 | BF-9 | Soluble | Solid | DI Leach | |
| 880-26425-10 | BF-10 | Soluble | Solid | DI Leach | |
| 880-26425-11 | BF-11 | Soluble | Solid | DI Leach | |
| 880-26425-12 | BF-12 | Soluble | Solid | DI Leach | |
| 880-26425-13 | BF-13 | Soluble | Solid | DI Leach | |
| 880-26425-14 | BF-14 | Soluble | Solid | DI Leach | |
| 880-26425-15 | BF-15 | Soluble | Solid | DI Leach | |
| MB 880-49714/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-49714/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-49714/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-26425-10 MS | BF-10 | Soluble | Solid | DI Leach | |
| 880-26425-10 MSD | BF-10 | Soluble | Solid | DI Leach | |

### Analysis Batch: 49825

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-26425-1 | BF-1 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-2 | BF-2 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-3 | BF-3 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-5 | BF-5 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-6 | BF-6 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-7 | BF-7 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-8 | BF-8 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-9 | BF-9 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-10 | BF-10 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-11 | BF-11 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-12 | BF-12 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-13 | BF-13 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-14 | BF-14 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-15 | BF-15 | Soluble | Solid | 300.0 | 49714 |
| MB 880-49714/1-A | Method Blank | Soluble | Solid | 300.0 | 49714 |
| LCS 880-49714/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 49714 |
| LCSD 880-49714/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 49714 |
| 880-26425-10 MS | BF-10 | Soluble | Solid | 300.0 | 49714 |
| 880-26425-10 MSD | BF-10 | Soluble | Solid | 300.0 | 49714 |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## Client Sample ID: BF-1

**Lab Sample ID: 880-26425-1**

**Date Collected: 03/27/23 11:00**
**Matrix: Solid**
**Date Received: 03/28/23 08:57**

| 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 | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/01/23 19:36 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/29/23 17:17 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 49734 | 03/28/23 11:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49779 | 03/29/23 16:51 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 16:05 | SMC | EET MID |

## Client Sample ID: BF-2

**Lab Sample ID: 880-26425-2**

**Date Collected: 03/27/23 11:05**
**Matrix: Solid**
**Date Received: 03/28/23 08:57**

| 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 | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/01/23 20:02 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/29/23 22:12 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 49734 | 03/28/23 11:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49779 | 03/29/23 17:13 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 16:09 | SMC | EET MID |

## Client Sample ID: BF-3

**Lab Sample ID: 880-26425-3**

**Date Collected: 03/27/23 11:10**
**Matrix: Solid**
**Date Received: 03/28/23 08:57**

| 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 | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/01/23 21:47 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/29/23 22:12 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 49734 | 03/28/23 11:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49779 | 03/29/23 17:35 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 16:14 | SMC | EET MID |

## Client Sample ID: BF-5

**Lab Sample ID: 880-26425-5**

**Date Collected: 03/27/23 11:20**
**Matrix: Solid**
**Date Received: 03/28/23 08:57**

| 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 | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/01/23 22:14 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |

Eurofins Midland

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## Client Sample ID: BF-5

**Date Collected: 03/27/23 11:20**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-5

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/29/23 22:12 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 49734 | 03/28/23 11:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49779 | 03/29/23 17:57 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 16:28 | SMC | EET MID |

## Client Sample ID: BF-6

**Date Collected: 03/27/23 11:25**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-6

**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 | | | 4.97 g | 5 mL | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/01/23 22:40 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/29/23 22:12 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 49734 | 03/28/23 11:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49779 | 03/29/23 18:19 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 5 | 50 mL | 50 mL | 49825 | 03/28/23 16:32 | SMC | EET MID |

## Client Sample ID: BF-7

**Date Collected: 03/27/23 11:30**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-7

**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 | | | 4.95 g | 5 mL | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/01/23 23:05 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/29/23 22:12 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 49734 | 03/28/23 11:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49779 | 03/29/23 18:41 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 16:37 | SMC | EET MID |

## Client Sample ID: BF-8

**Date Collected: 03/27/23 11:35**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-8

**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 | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/01/23 23:31 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/29/23 22:12 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 49734 | 03/28/23 11:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49779 | 03/29/23 19:03 | SM | EET MID |

Eurofins Midland

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## Client Sample ID: BF-8

**Date Collected: 03/27/23 11:35**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-8

**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 | | | 4.98 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 16:41 | SMC | EET MID |

## Client Sample ID: BF-9

**Date Collected: 03/27/23 11:40**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-9

**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 | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/01/23 23:58 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/29/23 22:12 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 49734 | 03/28/23 11:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49779 | 03/29/23 19:25 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 16:46 | SMC | EET MID |

## Client Sample ID: BF-10

**Date Collected: 03/27/23 11:45**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-10

**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 | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/02/23 00:24 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/30/23 12:51 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 49755 | 03/28/23 13:32 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49777 | 03/29/23 22:20 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 16:50 | SMC | EET MID |

## Client Sample ID: BF-11

**Date Collected: 03/27/23 11:50**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-11

**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 | | | 4.97 g | 5 mL | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/02/23 00:50 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/30/23 12:51 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 49755 | 03/28/23 13:32 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49777 | 03/29/23 22:41 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 17:04 | SMC | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## Client Sample ID: BF-12

**Date Collected: 03/27/23 11:55**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-12

**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 | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/02/23 01:16 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/30/23 12:51 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 49755 | 03/28/23 13:32 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49777 | 03/29/23 23:03 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 17:08 | SMC | EET MID |

## Client Sample ID: BF-13

**Date Collected: 03/27/23 12:00**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-13

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.02 g | 5 mL | 49868 | 03/29/23 15:38 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 49998 | 04/02/23 01:42 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/30/23 12:51 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 49755 | 03/28/23 13:32 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49777 | 03/29/23 23:24 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 17:22 | SMC | EET MID |

## Client Sample ID: BF-14

**Date Collected: 03/27/23 12:05**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-14

**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 | | | 5.02 g | 5 mL | 49879 | 03/29/23 16:16 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 50015 | 04/01/23 12:23 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:44 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/30/23 12:51 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 49755 | 03/28/23 13:32 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49777 | 03/29/23 21:14 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 17:27 | SMC | EET MID |

## Client Sample ID: BF-15

**Date Collected: 03/27/23 12:10**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-15

**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 | | | 5.03 g | 5 mL | 49879 | 03/29/23 16:16 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 50015 | 04/01/23 12:44 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 50253 | 04/03/23 16:44 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

## Client Sample ID: BF-15

**Date Collected: 03/27/23 12:10**
**Date Received: 03/28/23 08:57**

## Lab Sample ID: 880-26425-15

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8015 NM | | 1 | | | 49896 | 03/30/23 12:51 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 49755 | 03/28/23 13:32 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 49777 | 03/29/23 23:46 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 49714 | 03/28/23 10:15 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 49825 | 03/28/23 17:31 | SMC | 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: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

## 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: 880-26425-1
Project/Site: CBBF/Culebre Buff Backfill SDG: 19-0180-07

| 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: CBBF/Culebre Buff Backfill

Job ID: 880-26425-1
SDG: 19-0180-07

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 880-26425-1 | BF-1 | Solid | 03/27/23 11:00 | 03/28/23 08:57 |
| 880-26425-2 | BF-2 | Solid | 03/27/23 11:05 | 03/28/23 08:57 |
| 880-26425-3 | BF-3 | Solid | 03/27/23 11:10 | 03/28/23 08:57 |
| 880-26425-5 | BF-5 | Solid | 03/27/23 11:20 | 03/28/23 08:57 |
| 880-26425-6 | BF-6 | Solid | 03/27/23 11:25 | 03/28/23 08:57 |
| 880-26425-7 | BF-7 | Solid | 03/27/23 11:30 | 03/28/23 08:57 |
| 880-26425-8 | BF-8 | Solid | 03/27/23 11:35 | 03/28/23 08:57 |
| 880-26425-9 | BF-9 | Solid | 03/27/23 11:40 | 03/28/23 08:57 |
| 880-26425-10 | BF-10 | Solid | 03/27/23 11:45 | 03/28/23 08:57 |
| 880-26425-11 | BF-11 | Solid | 03/27/23 11:50 | 03/28/23 08:57 |
| 880-26425-12 | BF-12 | Solid | 03/27/23 11:55 | 03/28/23 08:57 |
| 880-26425-13 | BF-13 | Solid | 03/27/23 12:00 | 03/28/23 08:57 |
| 880-26425-14 | BF-14 | Solid | 03/27/23 12:05 | 03/28/23 08:57 |
| 880-26425-15 | BF-15 | Solid | 03/27/23 12:10 | 03/28/23 08:57 |

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24425

No. 2700

# CHAIN-OF-CUSTODY

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

DATE: 3/27/23 PAGE 1 OF 1

PO# _____ LAB WORK ORDER#. _____

PROJECT LOCATION OR NAME: CBBF / Culebra Bluff Backfill

LAI PROJECT #: 19-0180-07 COLLECTOR. MF

Data Reported to

TRRP report? ☐ Yes ☒ No

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

TIME ZONE Time zone/State: MNT/NM

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

ANALYSES: BTEX ☒ MTBE ☐ | ~~TRPH 418.1~~ ☐ ~~TPH 1005~~ ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☒ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D W 200 8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐

| Field Sample I D | Lab # | Date | Time | Matrix | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | BTEX ☒ | MTBE ☐ | ~~TRPH 418.1~~ ☐ | ~~TPH 1005~~ ☐ | TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☒ | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BF-1 | | 3/27/23 | 1100 | S | 1 | | | | X | | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | 202 |
| BF-2 | | | 1105 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-3 | | | 1110 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-4 | | | 1115 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-5 | | | 1120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-6 | | | 1125 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-7 | | | 1130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-8 | | | 1135 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-9 | | | 1140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-10 | | | 1145 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-11 | | | 1150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-12 | | | 1155 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-13 | | | 1200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-14 | | | 1205 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BF-15 | | | 1210 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

880-26425 Chain of Custody

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) |
|---|---|---|
| Matthew Fuller | 3/28/23 | 8:57 |
| 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 1.6 1.3 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☑ HAND DELIVERED

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Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

4/3/2023

# Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-26425-1
SDG Number: 19-0180-07

**Login Number: 26425**
**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 2/29/2024 10:02:18 AM Revision 2

## JOB DESCRIPTION

Culebra Bluff SE 5 32 Fed Com 3
19-0180-07

## JOB NUMBER

880-39246-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.



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my EOL

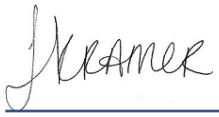
# Eurofins Midland

## 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 2

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# Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| *- | LCS and/or LCSD is outside acceptance limits, low biased. |
| *+ | LCS and/or LCSD is outside acceptance limits, high biased. |
| *1 | LCS/LCSD RPD exceeds control limits. |
| 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 |
|---|---|
| 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. |

## 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: 880-39246-1
Project: Culebra Bluff SE 5 32 Fed Com 3

## Job ID: 880-39246-1 Eurofins Midland

**Job Narrative**
**880-39246-1**

**Revision**
The report being provided is a revision of the original report sent on 2/22/2024. The report (revision 1) is being revised to correct the project name and report the results for the reanalysis of Cl per Robert Nelson (email).

**Receipt**
The samples were received on 2/12/2024 12:30 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 2.5º C.

**Receipt Exceptions**
The following sampleswere received and analyzed from an unpreserved bulk soil jar: C-5,O-4.1 (880-39246-1), SW-2.0-4.1 (880-39246-2), SW-3,0-4.1 (880-39246-3), C-12,0-4.1 (880-39246-4), SW-4,0-4.1 (880-39246-5), SW-5,0-4.1 (880-39246-6), C-4,0-4.1 (880-39246-7), C-63,0-4.1 (880-39246-8), C-2,0-4.1 (880-39246-9), SW-8.0-4.1 (880-39246-10), C-59,0-4.1 (880-39246-11), C-19,0-4.1 (880-39246-12), SW-7,0-4.1 (880-39246-13), SW-6,0-4.1 (880-39246-14), C-116,4.1 (880-39246-15), C-117,4.1 (880-39246-16), C-118,4.1 (880-39246-17), C-119,4.1 (880-39246-18), C-120,4.1 (880-39246-19), C-212,4.1 (880-39246-20), C-122,4.1 (880-39246-21), C-123,4.1 (880-39246-22), C-124,4.1 (880-39246-23), C-125,4.1 (880-39246-24), C-126,4.1 (880-39246-25), C-127,4.1 (880-39246-26), C-128,4.1 (880-39246-27), C-129,4.1 (880-39246-28), C-130,4.1 (880-39246-29), C-131,4.1 (880-39246-30), C-132,4.1 (880-39246-31), C-133,4.1 (880-39246-32), C-134,4.1 (880-39246-33), C-135,4.1 (880-39246-34), C-136,4.1 (880-39246-35), C-137,4.1 (880-39246-36), C-138,4.1 (880-39246-37), C-139,4.1 (880-39246-38), C-140,4.1 (880-39246-39), C-141,4.1 (880-39246-40), C-142,4.1 (880-39246-41), C-143,4.1 (880-39246-42), C-144.4.1 (880-39246-43), C-145,4.1 (880-39246-44), C-146,4.1 (880-39246-45), C-148,4.1 (880-39246-46), C-149,4.1 (880-39246-47), C-150,4.1 (880-39246-48), C-151,4.1 (880-39246-49), C-152,4.1 (880-39246-50), C-153,4.1 (880-39246-51), C-154,4.1 (880-39246-52) and C-147,4.1 (880-39246-53).

**GC VOA**
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73189 and analytical batch 880-73320 was outside the control limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-73320 recovered below the lower control limit for Ethylbenzene, m,p-Xylenes and o-Xylene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-73320/64).

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-73271/1-A). 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-122,4.1 (880-39246-21), C-123,4.1 (880-39246-22), C-124,4.1 (880-39246-23), C-125,4.1 (880-39246-24), C-126,4.1 (880-39246-25), C-127,4.1 (880-39246-26), C-128,4.1 (880-39246-27), C-129,4.1 (880-39246-28), C-130,4.1 (880-39246-29), C-131,4.1 (880-39246-30), C-132,4.1 (880-39246-31), C-133,4.1 (880-39246-32), C-134,4.1 (880-39246-33), C-135,4.1 (880-39246-34), C-136,4.1 (880-39246-35), C-137,4.1 (880-39246-36), C-138,4.1 (880-39246-37), C-139,4.1 (880-39246-38), C-140,4.1 (880-39246-39), C-141,4.1 (880-39246-40) and (MB 880-73272/5-A). 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: (LCS 880-73272/1-A), (LCSD 880-73272/2-A), (880-39246-A-21-G MS) and (880-39246-A-21-H MSD). Evidence of matrix interferences is not obvious.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-73428 recovered above the upper control limit for Ethylbenzene and m,p-Xylenes. 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 880-73428/2).

Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-73272 and analytical batch 880-73428 recovered outside control limits for the following analytes: Toluene, Ethylbenzene, m,p-Xylenes and o-Xylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73272 and analytical batch 880-73428 was outside control limits. Sample matrix interference and/or non-homogeneity is suspected.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-73428 recovered above the upper control limit for m,p-Xylenes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have

# Case Narrative

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project: Culebra Bluff SE 5 32 Fed Com 3

## Job ID: 880-39246-1 (Continued) Eurofins Midland

been reported. The associated sample is impacted: (CCV 880-73428/20).

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-73428 recovered above the upper control limit for Ethylbenzene, m,p-Xylenes and o-Xylene. 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 880-73428/33).

Method 8021B: Surrogate recovery for the following samples were outside control limits: C-143,4.1 (880-39246-42) and C-144.4.1 (880-39246-43). 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 8015B NM: The surrogate recovery for the blank associated with preparation batch 880-73050 and 880-73051 and analytical batch 880-73400 was outside the upper control limits.

Method 8015B NM: Surrogate recovery for the following samples were outside control limits: SW-5,0-4.1 (880-39246-6), C-4,0-4.1 (880-39246-7) and C-128,4.1 (880-39246-27). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-73050/2-A). Evidence of matrix interferences is not obvious.

Method 8015B NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-73051 and analytical batch 880-73400 was outside control limits. Sample non-homogeneity is suspected.

Method 8015B NM: The surrogate recovery for the blank associated with preparation batch 880-73083 and analytical batch 880-73402 was outside the upper control limits.

Method 8015B NM: Surrogate recovery for the following samples were outside control limits: C-143,4.1 (880-39246-42), C-146,4.1 (880-39246-45), (880-39246-A-41-E MS) and (880-39246-A-41-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015B NM: Surrogate recovery for the following samples were outside control limits: C-147,4.1 (880-39246-53). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015B NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73083 and analytical batch 880-73402 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.

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 for preparation batch 880-73040 and 880-73040 and analytical batch 880-73198 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 300.0: The matrix spike duplicate (MSD) recoveries for preparation batch 880-73029 and 880-73029 and analytical batch 880-73194 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 300.0: The matrix spike duplicate (MSD) recoveries for preparation batch 880-73029 and analytical batch 880-73194 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73228 and analytical batch 880-73299 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.

# Case Narrative

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project: Culebra Bluff SE 5 32 Fed Com 3

## Job ID: 880-39246-1 (Continued) Eurofins Midland

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73473 and analytical batch 880-73579 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: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-5,O-4.1

**Lab Sample ID: 880-39246-1**
**Matrix: Solid**
**Date Collected: 02/06/24 11:08**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 12:26 | 02/17/24 10:49 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 10:49 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 10:49 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 10:49 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 10:49 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 10:49 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *82* | | *70 - 130* | *02/15/24 12:26* | *02/17/24 10:49* | *1* |
| *1,4-Difluorobenzene (Surr)* | *86* | | *70 - 130* | *02/15/24 12:26* | *02/17/24 10:49* | *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 | | | 02/17/24 10:49 | 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 | | | 02/17/24 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) | <49.7 | U | 49.7 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 10:24 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.7 | U | 49.7 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 10:24 | 1 |
| OII Range Organics (Over C28-C36) | <49.7 | U | 49.7 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 10:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *128* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 10:24* | *1* |
| *o-Terphenyl (Surr)* | *106* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 10:24* | *1* |

## Client Sample ID: SW-2.0-4.1

**Lab Sample ID: 880-39246-2**
**Matrix: Solid**
**Date Collected: 02/06/24 11:29**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 12:26 | 02/17/24 11:10 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 11:10 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 11:10 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 11:10 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 11:10 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 11:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *80* | | *70 - 130* | *02/15/24 12:26* | *02/17/24 11:10* | *1* |
| *1,4-Difluorobenzene (Surr)* | *78* | | *70 - 130* | *02/15/24 12:26* | *02/17/24 11:10* | *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 | | | 02/17/24 11:10 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: SW-2.0-4.1 Lab Sample ID: 880-39246-2

**Date Collected: 02/06/24 11:29** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 11:31 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 11:31 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 11:31 | 1 |
| Oll Range Organics (Over C28-C36) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 11:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *128* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 11:31* | *1* |
| *o-Terphenyl (Surr)* | *107* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 11:31* | *1* |

## Client Sample ID: SW-3,0-4.1 Lab Sample ID: 880-39246-3

**Date Collected: 02/06/24 14:59** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 12:26 | 02/17/24 11:31 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 11:31 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 11:31 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 11:31 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 11:31 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 11:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *81* | | *70 - 130* | *02/15/24 12:26* | *02/17/24 11:31* | *1* |
| *1,4-Difluorobenzene (Surr)* | *78* | | *70 - 130* | *02/15/24 12:26* | *02/17/24 11:31* | *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 | | | 02/17/24 11:31 | 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 | | | 02/17/24 11:53 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 11:53 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 11:53 | 1 |
| Oll Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 11:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *117* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 11:53* | *1* |
| *o-Terphenyl (Surr)* | *96* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 11:53* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-12,0-4.1 Lab Sample ID: 880-39246-4

**Date Collected: 02/07/24 09:47** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 01:25 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 01:25 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 01:25 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 01:25 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 01:25 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 01:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 01:25* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 01:25* | *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 | | | 02/20/24 01:25 | 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 | | | 02/17/24 12:15 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 12:15 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 12:15 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 12:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *108* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 12:15* | *1* |
| *o-Terphenyl (Surr)* | *91* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 12:15* | *1* |

## Client Sample ID: SW-4,0-4.1 Lab Sample ID: 880-39246-5

**Date Collected: 02/07/24 09:48** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 01:45 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 01:45 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 01:45 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 01:45 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 01:45 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 01:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 01:45* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 01:45* | *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 01:45 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: SW-4,0-4.1 Lab Sample ID: 880-39246-5
**Date Collected: 02/07/24 09:48** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 12:38 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 12:38 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 12:38 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 12:38 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *106* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 12:38* | *1* |
| *o-Terphenyl (Surr)* | *92* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 12:38* | *1* |

## Client Sample ID: SW-5,0-4.1 Lab Sample ID: 880-39246-6
**Date Collected: 02/07/24 11:29** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 02:06 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:06 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:06 | 1 |
| m,p-Xylenes | <0.00397 | U | 0.00397 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:06 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:06 | 1 |
| Xylenes, Total | <0.00397 | U | 0.00397 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *107* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 02:06* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 02:06* | *1* |

### 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 | | | 02/20/24 02:06 | 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 | | | 02/17/24 13:00 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 13:00 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 13:00 | 1 |
| Oil Range Organics (Over C28-C36) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 13:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *138* | *S1+* | *70 - 130* | *02/13/24 12:58* | *02/17/24 13:00* | *1* |
| *o-Terphenyl (Surr)* | *115* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 13:00* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-4,0-4.1 — Lab Sample ID: 880-39246-7

**Date Collected: 02/08/24 09:49** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 02:27 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:27 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:27 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:27 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:27 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 02:27* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 02:27* | *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 | | | 02/20/24 02:27 | 1 |

### Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.2 | U | 50.2 | | mg/Kg | | | 02/17/24 13:22 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 13:22 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 13:22 | 1 |
| Oil Range Organics (Over C28-C36) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 13:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *133* | *S1+* | *70 - 130* | *02/13/24 12:58* | *02/17/24 13:22* | *1* |
| *o-Terphenyl (Surr)* | *109* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 13:22* | *1* |

## Client Sample ID: C-63,0-4.1 — Lab Sample ID: 880-39246-8

**Date Collected: 02/08/24 10:08** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 02:47 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:47 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:47 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:47 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:47 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 02:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 02:47* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 02:47* | *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 02:47 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-63,0-4.1 Lab Sample ID: 880-39246-8

**Date Collected: 02/08/24 10:08** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 13:44 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 13:44 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 13:44 | 1 |
| Oil Range Organics (Over C28-C36) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 13:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *120* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 13:44* | *1* |
| *o-Terphenyl (Surr)* | *100* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 13:44* | *1* |

## Client Sample ID: C-2,0-4.1 Lab Sample ID: 880-39246-9

**Date Collected: 02/08/24 10:36** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 03:08 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 03:08 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 03:08 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 03:08 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 03:08 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 03:08 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 03:08* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 03:08* | *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 03:08 | 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 | | | 02/17/24 14:06 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 14:06 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 14:06 | 1 |
| Oil Range Organics (Over C28-C36) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 14:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *129* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 14:06* | *1* |
| *o-Terphenyl (Surr)* | *106* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 14:06* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: SW-8.0-4.1 Lab Sample ID: 880-39246-10

**Date Collected: 02/08/24 11:32** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 03:28 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 03:28 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 03:28 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 03:28 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 03:28 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 03:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *107* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 03:28* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 03:28* | *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 03:28 | 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 | | | 02/17/24 14:29 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 14:29 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 14:29 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 14:29 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *114* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 14:29* | *1* |
| *o-Terphenyl (Surr)* | *95* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 14:29* | *1* |

## Client Sample ID: C-59,0-4.1 Lab Sample ID: 880-39246-11

**Date Collected: 02/08/24 13:33** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 04:52 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 04:52 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 04:52 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 04:52 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 04:52 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 04:52 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *94* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 04:52* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 04:52* | *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 | | | 02/20/24 04:52 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-59,0-4.1 Lab Sample ID: 880-39246-11

**Date Collected: 02/08/24 13:33** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 15:13 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 15:13 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 15:13 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 15:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *110* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 15:13* | *1* |
| *o-Terphenyl (Surr)* | *91* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 15:13* | *1* |

## Client Sample ID: C-19,0-4.1 Lab Sample ID: 880-39246-12

**Date Collected: 02/08/24 14:16** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 05:13 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:13 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:13 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:13 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:13 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *105* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 05:13* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 05:13* | *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 05:13 | 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 | | | 02/17/24 15:35 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 15:35 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 15:35 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 15:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *119* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 15:35* | *1* |
| *o-Terphenyl (Surr)* | *98* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 15:35* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: SW-7,0-4.1 Lab Sample ID: 880-39246-13

**Date Collected: 02/08/24 14:17** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 05:33 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:33 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:33 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:33 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:33 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 05:33* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 05:33* | *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 05:33 | 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 | | | 02/17/24 15:58 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 15:58 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 15:58 | 1 |
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 15:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *119* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 15:58* | *1* |
| *o-Terphenyl (Surr)* | *98* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 15:58* | *1* |

## Client Sample ID: SW-6,0-4.1 Lab Sample ID: 880-39246-14

**Date Collected: 02/09/24 08:32** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 05:54 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:54 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:54 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:54 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:54 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 05:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 05:54* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 05:54* | *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 05:54 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: SW-6,0-4.1 Lab Sample ID: 880-39246-14

**Date Collected: 02/09/24 08:32** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 16:20 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 16:20 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 16:20 | 1 |
| Oil Range Organics (Over C28-C36) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 16:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *108* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 16:20* | *1* |
| *o-Terphenyl (Surr)* | *91* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 16:20* | *1* |

## Client Sample ID: C-116,4.1 Lab Sample ID: 880-39246-15

**Date Collected: 02/09/24 08:00** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 06:15 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:15 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:15 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:15 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:15 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *105* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 06:15* | *1* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 06:15* | *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 06:15 | 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 | | | 02/17/24 16:43 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 16:43 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 16:43 | 1 |
| Oil Range Organics (Over C28-C36) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 16:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *109* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 16:43* | *1* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 16:43* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-117,4.1 Lab Sample ID: 880-39246-16
**Date Collected: 02/09/24 09:02** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 06:35 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:35 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:35 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:35 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:35 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 06:35* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 06:35* | *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 06:35 | 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 | | | 02/17/24 17:05 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 17:05 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 17:05 | 1 |
| Oil Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 17:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *98* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 17:05* | *1* |
| *o-Terphenyl (Surr)* | *82* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 17:05* | *1* |

## Client Sample ID: C-118,4.1 Lab Sample ID: 880-39246-17
**Date Collected: 02/09/24 09:09** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 06:56 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:56 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:56 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:56 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:56 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 06:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *105* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 06:56* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 06:56* | *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 | | | 02/20/24 06:56 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-118,4.1 Lab Sample ID: 880-39246-17

**Date Collected: 02/09/24 09:09** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 17:27 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 17:27 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 17:27 | 1 |
| Oil Range Organics (Over C28-C36) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 17:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *94* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 17:27* | *1* |
| *o-Terphenyl (Surr)* | *79* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 17:27* | *1* |

## Client Sample ID: C-119,4.1 Lab Sample ID: 880-39246-18

**Date Collected: 02/09/24 09:06** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 07:17 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:17 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:17 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:17 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:17 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:17 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 07:17* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 07:17* | *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 07:17 | 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 | | | 02/17/24 17:50 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 17:50 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 17:50 | 1 |
| Oil Range Organics (Over C28-C36) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 17:50 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *130* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 17:50* | *1* |
| *o-Terphenyl (Surr)* | *108* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 17:50* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-120,4.1 — Lab Sample ID: 880-39246-19

**Date Collected: 02/09/24 09:08** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 07:37 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:37 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:37 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:37 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:37 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 07:37* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 07:37* | *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 07:37 | 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 | | | 02/17/24 18:12 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 18:12 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 18:12 | 1 |
| Oil Range Organics (Over C28-C36) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 18:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *127* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 18:12* | *1* |
| *o-Terphenyl (Surr)* | *105* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 18:12* | *1* |

## Client Sample ID: C-212,4.1 — Lab Sample ID: 880-39246-20

**Date Collected: 02/09/24 09:10** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:52 | 02/20/24 07:58 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:58 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:58 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:58 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:58 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 07:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 07:58* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 07:58* | *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 07:58 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-212,4.1 — Lab Sample ID: 880-39246-20

**Date Collected: 02/09/24 09:10** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 18:34 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.4 | U | 50.4 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 18:34 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.4 | U | 50.4 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 18:34 | 1 |
| OII Range Organics (Over C28-C36) | <50.4 | U | 50.4 | | mg/Kg | | 02/13/24 12:58 | 02/17/24 18:34 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *128* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 18:34* | *1* |
| *o-Terphenyl (Surr)* | *107* | | *70 - 130* | *02/13/24 12:58* | *02/17/24 18:34* | *1* |

## Client Sample ID: C-122,4.1 — Lab Sample ID: 880-39246-21

**Date Collected: 02/09/24 09:12** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 12:16 | 1 |
| Toluene | <0.00199 | U *+ F1 | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 12:16 | 1 |
| Ethylbenzene | <0.00199 | U *+ F1 | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 12:16 | 1 |
| m,p-Xylenes | <0.00398 | U *+ F1 *-*1 | 0.00398 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 12:16 | 1 |
| o-Xylene | <0.00199 | U *+ F1 | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 12:16 | 1 |
| Xylenes, Total | <0.00398 | U *+ F1 *-*1 | 0.00398 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 12:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *231* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 12:16* | *1* |
| *1,4-Difluorobenzene (Surr)* | *78* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 12:16* | *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 | | | 02/19/24 12:16 | 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 | | | 02/17/24 20:25 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 20:25 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U F2 | 49.9 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 20:25 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 20:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *127* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 20:25* | *1* |
| *o-Terphenyl (Surr)* | *107* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 20:25* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-123,4.1 — Lab Sample ID: 880-39246-22

**Date Collected: 02/09/24 09:14** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 12:42 | 1 |
| Toluene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 12:42 | 1 |
| Ethylbenzene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 12:42 | 1 |
| m,p-Xylenes | <0.00396 | U *+ *- *1 | 0.00396 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 12:42 | 1 |
| o-Xylene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 12:42 | 1 |
| Xylenes, Total | <0.00396 | U *+ *- *1 | 0.00396 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 12:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *186* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 12:42* | *1* |
| *1,4-Difluorobenzene (Surr)* | *75* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 12:42* | *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 | | | 02/19/24 12:42 | 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 | | | 02/17/24 21:31 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 21:31 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 21:31 | 1 |
| OII Range Organics (Over C28-C36) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 21:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *111* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 21:31* | *1* |
| *o-Terphenyl (Surr)* | *90* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 21:31* | *1* |

## Client Sample ID: C-124,4.1 — Lab Sample ID: 880-39246-23

**Date Collected: 02/09/24 09:16** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 13:08 | 1 |
| Toluene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 13:08 | 1 |
| Ethylbenzene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 13:08 | 1 |
| m,p-Xylenes | <0.00404 | U *+ *- *1 | 0.00404 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 13:08 | 1 |
| o-Xylene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 13:08 | 1 |
| Xylenes, Total | <0.00404 | U *+ *- *1 | 0.00404 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 13:08 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *246* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 13:08* | *1* |
| *1,4-Difluorobenzene (Surr)* | *78* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 13:08* | *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 | | | 02/19/24 13:08 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-124,4.1 Lab Sample ID: 880-39246-23
**Date Collected: 02/09/24 09:16** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 21:53 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 21:53 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 21:53 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 21:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *124* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 21:53* | *1* |
| *o-Terphenyl (Surr)* | *103* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 21:53* | *1* |

## Client Sample ID: C-125,4.1 Lab Sample ID: 880-39246-24
**Date Collected: 02/09/24 09:18** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 13:35 | 1 |
| Toluene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 13:35 | 1 |
| Ethylbenzene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 13:35 | 1 |
| m,p-Xylenes | <0.00402 | U *+ *- *1 | 0.00402 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 13:35 | 1 |
| o-Xylene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 13:35 | 1 |
| Xylenes, Total | <0.00402 | U *+ *- *1 | 0.00402 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 13:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *261* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 13:35* | *1* |
| *1,4-Difluorobenzene (Surr)* | *112* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 13:35* | *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 | | | 02/19/24 13:35 | 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 | | | 02/17/24 22:15 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 22:15 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 22:15 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 22:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *110* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 22:15* | *1* |
| *o-Terphenyl (Surr)* | *92* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 22:15* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-126,4.1 — Lab Sample ID: 880-39246-25

**Date Collected: 02/09/24 09:20** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 14:01 | 1 |
| Toluene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:01 | 1 |
| Ethylbenzene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:01 | 1 |
| m,p-Xylenes | <0.00403 | U *+ *- *1 | 0.00403 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:01 | 1 |
| o-Xylene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:01 | 1 |
| Xylenes, Total | <0.00403 | U *+ *- *1 | 0.00403 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:01 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *238* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 14:01* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 14:01* | *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 | | | 02/19/24 14:01 | 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 | | | 02/17/24 22:37 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 22:37 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 22:37 | 1 |
| OII Range Organics (Over C28-C36) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 22:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *123* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 22:37* | *1* |
| *o-Terphenyl (Surr)* | *104* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 22:37* | *1* |

## Client Sample ID: C-127,4.1 — Lab Sample ID: 880-39246-26

**Date Collected: 02/09/24 09:22** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 14:28 | 1 |
| Toluene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:28 | 1 |
| Ethylbenzene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:28 | 1 |
| m,p-Xylenes | <0.00397 | U *+ *- *1 | 0.00397 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:28 | 1 |
| o-Xylene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:28 | 1 |
| Xylenes, Total | <0.00397 | U *+ *- *1 | 0.00397 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *249* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 14:28* | *1* |
| *1,4-Difluorobenzene (Surr)* | *85* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 14:28* | *1* |

### 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 | | | 02/19/24 14:28 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-127,4.1 Lab Sample ID: 880-39246-26
**Date Collected: 02/09/24 09:22** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 22:59 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 22:59 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 22:59 | 1 |
| Oil Range Organics (Over C28-C36) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 22:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *116* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 22:59* | *1* |
| *o-Terphenyl (Surr)* | *102* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 22:59* | *1* |

## Client Sample ID: C-128,4.1 Lab Sample ID: 880-39246-27
**Date Collected: 02/09/24 09:24** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 14:54 | 1 |
| Toluene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:54 | 1 |
| Ethylbenzene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:54 | 1 |
| m,p-Xylenes | <0.00399 | U *+ *- *1 | 0.00399 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:54 | 1 |
| o-Xylene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:54 | 1 |
| Xylenes, Total | <0.00399 | U *+ *- *1 | 0.00399 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 14:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *238* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 14:54* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 14:54* | *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 | | | 02/19/24 14:54 | 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 | | | 02/17/24 23:21 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 23:21 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 23:21 | 1 |
| Oil Range Organics (Over C28-C36) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 23:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *139* | *S1+* | *70 - 130* | *02/13/24 13:00* | *02/17/24 23:21* | *1* |
| *o-Terphenyl (Surr)* | *117* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 23:21* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-129,4.1 — Lab Sample ID: 880-39246-28

**Date Collected: 02/09/24 09:26** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 15:21 | 1 |
| Toluene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 15:21 | 1 |
| Ethylbenzene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 15:21 | 1 |
| m,p-Xylenes | <0.00398 | U *+ *- *1 | 0.00398 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 15:21 | 1 |
| o-Xylene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 15:21 | 1 |
| Xylenes, Total | <0.00398 | U *+ *- *1 | 0.00398 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 15:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *206* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 15:21* | *1* |
| *1,4-Difluorobenzene (Surr)* | *80* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 15:21* | *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 | | | 02/19/24 15:21 | 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 | | | 02/17/24 23:43 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.4 | U | 50.4 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 23:43 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.4 | U | 50.4 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 23:43 | 1 |
| OII Range Organics (Over C28-C36) | <50.4 | U | 50.4 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 23:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *101* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 23:43* | *1* |
| *o-Terphenyl (Surr)* | *88* | | *70 - 130* | *02/13/24 13:00* | *02/17/24 23:43* | *1* |

## Client Sample ID: C-130,4.1 — Lab Sample ID: 880-39246-29

**Date Collected: 02/09/24 09:28** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 15:47 | 1 |
| Toluene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 15:47 | 1 |
| Ethylbenzene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 15:47 | 1 |
| m,p-Xylenes | <0.00396 | U *+ *- *1 | 0.00396 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 15:47 | 1 |
| o-Xylene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 15:47 | 1 |
| Xylenes, Total | <0.00396 | U *+ *- *1 | 0.00396 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 15:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *250* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 15:47* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 15:47* | *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 | | | 02/19/24 15:47 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-130,4.1 Lab Sample ID: 880-39246-29
**Date Collected: 02/09/24 09:28** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/18/24 00:04 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 00:04 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 00:04 | 1 |
| Oll Range Organics (Over C28-C36) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 00:04 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *109* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 00:04* | *1* |
| *o-Terphenyl (Surr)* | *92* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 00:04* | *1* |

## Client Sample ID: C-131,4.1 Lab Sample ID: 880-39246-30
**Date Collected: 02/09/24 09:30** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 16:14 | 1 |
| Toluene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 16:14 | 1 |
| Ethylbenzene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 16:14 | 1 |
| m,p-Xylenes | <0.00403 | U *+ *- *1 | 0.00403 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 16:14 | 1 |
| o-Xylene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 16:14 | 1 |
| Xylenes, Total | <0.00403 | U *+ *- *1 | 0.00403 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 16:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *209* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 16:14* | *1* |
| *1,4-Difluorobenzene (Surr)* | *76* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 16:14* | *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 | | | 02/19/24 16:14 | 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 | | | 02/18/24 00:26 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 00:26 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 00:26 | 1 |
| Oll Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 00:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *112* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 00:26* | *1* |
| *o-Terphenyl (Surr)* | *93* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 00:26* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-132,4.1 — Lab Sample ID: 880-39246-31

**Date Collected: 02/09/24 09:32** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 18:01 | 1 |
| Toluene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:01 | 1 |
| Ethylbenzene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:01 | 1 |
| m,p-Xylenes | <0.00401 | U *+ *- *1 | 0.00401 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:01 | 1 |
| o-Xylene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:01 | 1 |
| Xylenes, Total | <0.00401 | U *+ *- *1 | 0.00401 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:01 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *166* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 18:01* | *1* |
| *1,4-Difluorobenzene (Surr)* | *75* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 18:01* | *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 | | | 02/19/24 18:01 | 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 | | | 02/18/24 01:10 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 01:10 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 01:10 | 1 |
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 01:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *92* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 01:10* | *1* |
| *o-Terphenyl (Surr)* | *76* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 01:10* | *1* |

## Client Sample ID: C-133,4.1 — Lab Sample ID: 880-39246-32

**Date Collected: 02/09/24 09:34** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 18:27 | 1 |
| Toluene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:27 | 1 |
| Ethylbenzene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:27 | 1 |
| m,p-Xylenes | <0.00398 | U *+ *- *1 | 0.00398 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:27 | 1 |
| o-Xylene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:27 | 1 |
| Xylenes, Total | <0.00398 | U *+ *- *1 | 0.00398 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *240* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 18:27* | *1* |
| *1,4-Difluorobenzene (Surr)* | *82* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 18:27* | *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 | | | 02/19/24 18:27 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-133,4.1 Lab Sample ID: 880-39246-32
**Date Collected: 02/09/24 09:34** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/18/24 01:31 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 01:31 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 01:31 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 01:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *118* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 01:31* | *1* |
| *o-Terphenyl (Surr)* | *99* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 01:31* | *1* |

## Client Sample ID: C-134,4.1 Lab Sample ID: 880-39246-33
**Date Collected: 02/09/24 09:36** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 18:54 | 1 |
| Toluene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:54 | 1 |
| Ethylbenzene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:54 | 1 |
| m,p-Xylenes | <0.00398 | U *+ *- *1 | 0.00398 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:54 | 1 |
| o-Xylene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:54 | 1 |
| Xylenes, Total | <0.00398 | U *+ *- *1 | 0.00398 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 18:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *240* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 18:54* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 18:54* | *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 | | | 02/19/24 18:54 | 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 | | | 02/18/24 01:53 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 01:53 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 01:53 | 1 |
| Oil Range Organics (Over C28-C36) | <50.3 | U | 50.3 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 01:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *121* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 01:53* | *1* |
| *o-Terphenyl (Surr)* | *101* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 01:53* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-135,4.1 — Lab Sample ID: 880-39246-34

**Date Collected: 02/09/24 09:38** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 19:20 | 1 |
| Toluene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 19:20 | 1 |
| Ethylbenzene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 19:20 | 1 |
| m,p-Xylenes | <0.00400 | U *+ *- *1 | 0.00400 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 19:20 | 1 |
| o-Xylene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 19:20 | 1 |
| Xylenes, Total | <0.00400 | U *+ *- *1 | 0.00400 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 19:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *240* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 19:20* | *1* |
| *1,4-Difluorobenzene (Surr)* | *82* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 19:20* | *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 | | | 02/19/24 19:20 | 1 |

### Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.2 | U | 50.2 | | mg/Kg | | | 02/18/24 02:15 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 02:15 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 02:15 | 1 |
| OII Range Organics (Over C28-C36) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 02:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *119* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 02:15* | *1* |
| *o-Terphenyl (Surr)* | *99* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 02:15* | *1* |

## Client Sample ID: C-136,4.1 — Lab Sample ID: 880-39246-35

**Date Collected: 02/09/24 09:40** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 19:47 | 1 |
| Toluene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 19:47 | 1 |
| Ethylbenzene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 19:47 | 1 |
| m,p-Xylenes | <0.00400 | U *+ *- *1 | 0.00400 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 19:47 | 1 |
| o-Xylene | <0.00200 | U *+ | 0.00200 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 19:47 | 1 |
| Xylenes, Total | <0.00400 | U *+ *- *1 | 0.00400 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 19:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *248* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 19:47* | *1* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 19:47* | *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 | | | 02/19/24 19:47 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-136,4.1 Lab Sample ID: 880-39246-35
**Date Collected: 02/09/24 09:40** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/18/24 02:37 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 02:37 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 02:37 | 1 |
| Oil Range Organics (Over C28-C36) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 02:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *116* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 02:37* | *1* |
| *o-Terphenyl (Surr)* | *99* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 02:37* | *1* |

## Client Sample ID: C-137,4.1 Lab Sample ID: 880-39246-36
**Date Collected: 02/09/24 09:42** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 20:13 | 1 |
| Toluene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 20:13 | 1 |
| Ethylbenzene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 20:13 | 1 |
| m,p-Xylenes | <0.00404 | U *+ *- *1 | 0.00404 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 20:13 | 1 |
| o-Xylene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 20:13 | 1 |
| Xylenes, Total | <0.00404 | U *+ *- *1 | 0.00404 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 20:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *276* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 20:13* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 20:13* | *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 | | | 02/19/24 20:13 | 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 | | | 02/18/24 02:59 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.4 | U | 50.4 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 02:59 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.4 | U | 50.4 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 02:59 | 1 |
| Oil Range Organics (Over C28-C36) | <50.4 | U | 50.4 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 02:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *100* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 02:59* | *1* |
| *o-Terphenyl (Surr)* | *87* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 02:59* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-138,4.1 — Lab Sample ID: 880-39246-37

**Date Collected: 02/09/24 09:49** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 20:39 | 1 |
| Toluene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 20:39 | 1 |
| Ethylbenzene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 20:39 | 1 |
| m,p-Xylenes | <0.00402 | U *+ *- *1 | 0.00402 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 20:39 | 1 |
| o-Xylene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 20:39 | 1 |
| Xylenes, Total | <0.00402 | U *+ *- *1 | 0.00402 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 20:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *266* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 20:39* | *1* |
| *1,4-Difluorobenzene (Surr)* | *114* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 20:39* | *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 | | | 02/19/24 20:39 | 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 | | | 02/18/24 03:21 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 03:21 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 03:21 | 1 |
| OII Range Organics (Over C28-C36) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 03:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *111* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 03:21* | *1* |
| *o-Terphenyl (Surr)* | *92* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 03:21* | *1* |

## Client Sample ID: C-139,4.1 — Lab Sample ID: 880-39246-38

**Date Collected: 02/09/24 09:46** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 21:06 | 1 |
| Toluene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:06 | 1 |
| Ethylbenzene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:06 | 1 |
| m,p-Xylenes | <0.00403 | U *+ *- *1 | 0.00403 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:06 | 1 |
| o-Xylene | <0.00202 | U *+ | 0.00202 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:06 | 1 |
| Xylenes, Total | <0.00403 | U *+ *- *1 | 0.00403 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *280* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 21:06* | *1* |
| *1,4-Difluorobenzene (Surr)* | *119* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 21:06* | *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 | | | 02/19/24 21:06 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-139,4.1 Lab Sample ID: 880-39246-38
**Date Collected: 02/09/24 09:46** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/18/24 03:43 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 03:43 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 03:43 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 03:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *113* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 03:43* | *1* |
| *o-Terphenyl (Surr)* | *94* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 03:43* | *1* |

## Client Sample ID: C-140,4.1 Lab Sample ID: 880-39246-39
**Date Collected: 02/09/24 09:48** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 21:32 | 1 |
| Toluene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:32 | 1 |
| Ethylbenzene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:32 | 1 |
| m,p-Xylenes | <0.00398 | U *+ *- *1 | 0.00398 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:32 | 1 |
| o-Xylene | <0.00199 | U *+ | 0.00199 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:32 | 1 |
| Xylenes, Total | <0.00398 | U *+ *- *1 | 0.00398 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *384* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 21:32* | *1* |
| *1,4-Difluorobenzene (Surr)* | *126* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 21:32* | *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 | | | 02/19/24 21:32 | 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 | | | 02/18/24 04:05 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 04:05 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 04:05 | 1 |
| Oil Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 04:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *130* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 04:05* | *1* |
| *o-Terphenyl (Surr)* | *111* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 04:05* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-141,4.1 — Lab Sample ID: 880-39246-40

**Date Collected: 02/09/24 09:50** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 14:55 | 02/19/24 21:59 | 1 |
| Toluene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:59 | 1 |
| Ethylbenzene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:59 | 1 |
| m,p-Xylenes | <0.00396 | U *+ *- *1 | 0.00396 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:59 | 1 |
| o-Xylene | <0.00198 | U *+ | 0.00198 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:59 | 1 |
| Xylenes, Total | <0.00396 | U *+ *- *1 | 0.00396 | | mg/Kg | | 02/15/24 14:55 | 02/19/24 21:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *273* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 21:59* | *1* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 21:59* | *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 | | | 02/19/24 21:59 | 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 | | | 02/18/24 04:27 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 04:27 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 04:27 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/18/24 04:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 04:27* | *1* |
| *o-Terphenyl (Surr)* | *85* | | *70 - 130* | *02/13/24 13:00* | *02/18/24 04:27* | *1* |

## Client Sample ID: C-142,4.1 — Lab Sample ID: 880-39246-41

**Date Collected: 02/09/24 09:52** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 12:38 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:38 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:38 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:38 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:38 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:38 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *92* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 12:38* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 12:38* | *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 | | | 02/21/24 12:38 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-142,4.1 Lab Sample ID: 880-39246-41
**Date Collected: 02/09/24 09:52** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 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) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 10:24 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.6 | U F1 | 49.6 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 10:24 | 1 |
| Oil Range Organics (Over C28-C36) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 10:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *85* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 10:24* | *1* |
| *o-Terphenyl (Surr)* | *88* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 10:24* | *1* |

## Client Sample ID: C-143,4.1 Lab Sample ID: 880-39246-42
**Date Collected: 02/09/24 09:54** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 15:24 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 15:24 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 15:24 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 15:24 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 15:24 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 15:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *145* | *S1+* | *70 - 130* | *02/15/24 15:00* | *02/21/24 15:24* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 15:24* | *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 | | | 02/21/24 15:24 | 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 | | | 02/17/24 11:31 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 11:31 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 11:31 | 1 |
| Oil Range Organics (Over C28-C36) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 11:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *68* | *S1-* | *70 - 130* | *02/13/24 16:08* | *02/17/24 11:31* | *1* |
| *o-Terphenyl (Surr)* | *70* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 11:31* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-144.4.1 Lab Sample ID: 880-39246-43

**Date Collected: 02/09/24 09:56** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 15:45 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 15:45 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 15:45 | 1 |
| m,p-Xylenes | <0.00404 | U | 0.00404 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 15:45 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 15:45 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 15:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *148* | *S1+* | *70 - 130* | *02/15/24 15:00* | *02/21/24 15:45* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 15:45* | *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 | | | 02/21/24 15:45 | 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 | | | 02/17/24 11:53 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.7 | U | 49.7 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 11:53 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.7 | U | 49.7 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 11:53 | 1 |
| OII Range Organics (Over C28-C36) | <49.7 | U | 49.7 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 11:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *85* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 11:53* | *1* |
| *o-Terphenyl (Surr)* | *87* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 11:53* | *1* |

## Client Sample ID: C-145,4.1 Lab Sample ID: 880-39246-44

**Date Collected: 02/09/24 09:58** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 17:37 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 17:37 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 17:37 | 1 |
| m,p-Xylenes | <0.00402 | U | 0.00402 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 17:37 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 17:37 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 17:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 17:37* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 17:37* | *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 | | | 02/21/24 17:37 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-145,4.1 Lab Sample ID: 880-39246-44
**Date Collected: 02/09/24 09:58** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 12:15 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 12:15 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 12:15 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 12:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *81* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 12:15* | *1* |
| *o-Terphenyl (Surr)* | *85* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 12:15* | *1* |

## Client Sample ID: C-146,4.1 Lab Sample ID: 880-39246-45
**Date Collected: 02/09/24 10:00** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 17:57 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 17:57 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 17:57 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 17:57 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 17:57 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 17:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *126* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 17:57* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 17:57* | *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 | | | 02/21/24 17:57 | 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 | | | 02/17/24 12:38 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 12:38 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 12:38 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 12:38 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *65* | *S1-* | *70 - 130* | *02/13/24 16:08* | *02/17/24 12:38* | *1* |
| *o-Terphenyl (Surr)* | *66* | *S1-* | *70 - 130* | *02/13/24 16:08* | *02/17/24 12:38* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-148,4.1 Lab Sample ID: 880-39246-46

**Date Collected: 02/09/24 10:04** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 18:18 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:18 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:18 | 1 |
| m,p-Xylenes | <0.00397 | U | 0.00397 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:18 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:18 | 1 |
| Xylenes, Total | <0.00397 | U | 0.00397 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *119* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 18:18* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 18:18* | *1* |

### 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 | | | 02/21/24 18:18 | 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 | | | 02/17/24 13:00 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 13:00 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 13:00 | 1 |
| Oil Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 13:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *93* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 13:00* | *1* |
| *o-Terphenyl (Surr)* | *99* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 13:00* | *1* |

## Client Sample ID: C-149,4.1 Lab Sample ID: 880-39246-47

**Date Collected: 02/09/24 10:06** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 18:39 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:39 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:39 | 1 |
| m,p-Xylenes | <0.00399 | U | 0.00399 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:39 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:39 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 18:39* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 18:39* | *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 | | | 02/21/24 18:39 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-149,4.1 Lab Sample ID: 880-39246-47
**Date Collected: 02/09/24 10:06** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.2 | U | 50.2 | | mg/Kg | | | 02/17/24 13:22 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 13:22 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 13:22 | 1 |
| Oil Range Organics (Over C28-C36) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 13:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *80* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 13:22* | *1* |
| *o-Terphenyl (Surr)* | *84* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 13:22* | *1* |

## Client Sample ID: C-150,4.1 Lab Sample ID: 880-39246-48
**Date Collected: 02/09/24 10:08** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 18:59 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:59 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:59 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:59 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:59 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 18:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *122* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 18:59* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 18:59* | *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 | | | 02/21/24 18:59 | 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 | | | 02/17/24 13:44 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 13:44 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 13:44 | 1 |
| Oil Range Organics (Over C28-C36) | <50.1 | U | 50.1 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 13:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *77* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 13:44* | *1* |
| *o-Terphenyl (Surr)* | *81* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 13:44* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-151,4.1 — Lab Sample ID: 880-39246-49

**Date Collected: 02/09/24 10:10** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 19:20 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 19:20 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 19:20 | 1 |
| m,p-Xylenes | <0.00396 | U | 0.00396 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 19:20 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 19:20 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 19:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *127* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 19:20* | *1* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 19:20* | *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 | | | 02/21/24 19:20 | 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 | | | 02/17/24 14:06 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 14:06 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 14:06 | 1 |
| OII Range Organics (Over C28-C36) | <50.5 | U | 50.5 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 14:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *93* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 14:06* | *1* |
| *o-Terphenyl (Surr)* | *96* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 14:06* | *1* |

## Client Sample ID: C-152,4.1 — Lab Sample ID: 880-39246-50

**Date Collected: 02/09/24 10:12** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 19:41 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 19:41 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 19:41 | 1 |
| m,p-Xylenes | <0.00403 | U | 0.00403 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 19:41 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 19:41 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 19:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *116* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 19:41* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 19:41* | *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 | | | 02/21/24 19:41 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-152,4.1 — Lab Sample ID: 880-39246-50

**Date Collected: 02/09/24 10:12** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | | 02/17/24 14:29 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 14:29 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 14:29 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 14:29 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *76* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 14:29* | *1* |
| *o-Terphenyl (Surr)* | *78* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 14:29* | *1* |

## Client Sample ID: C-153,4.1 — Lab Sample ID: 880-39246-51

**Date Collected: 02/09/24 10:14** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 20:01 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:01 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:01 | 1 |
| m,p-Xylenes | <0.00401 | U | 0.00401 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:01 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:01 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:01 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 20:01* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 20:01* | *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 | | | 02/21/24 20:01 | 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 | | | 02/17/24 15:13 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 15:13 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 15:13 | 1 |
| Oil Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 15:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *93* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 15:13* | *1* |
| *o-Terphenyl (Surr)* | *97* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 15:13* | *1* |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## Client Sample ID: C-154,4.1 Lab Sample ID: 880-39246-52

**Date Collected: 02/09/24 10:16** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 20:22 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:22 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:22 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:22 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:22 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *123* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 20:22* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 20:22* | *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 | | | 02/21/24 20:22 | 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 | | | 02/17/24 15:35 | 1 |

### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 15:35 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 15:35 | 1 |
| Oil Range Organics (Over C28-C36) | <49.6 | U | 49.6 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 15:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *84* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 15:35* | *1* |
| *o-Terphenyl (Surr)* | *87* | | *70 - 130* | *02/13/24 16:08* | *02/17/24 15:35* | *1* |

## Client Sample ID: C-147,4.1 Lab Sample ID: 880-39246-53

**Date Collected: 02/09/24 10:02** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

### 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 | | 02/15/24 15:00 | 02/21/24 20:43 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:43 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:43 | 1 |
| m,p-Xylenes | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:43 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:43 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 20:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *128* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 20:43* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *02/15/24 15:00* | *02/21/24 20:43* | *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 | | | 02/21/24 20:43 | 1 |

# Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

**Client Sample ID: C-147,4.1** **Lab Sample ID: 880-39246-53**
**Date Collected: 02/09/24 10:02** **Matrix: Solid**
**Date Received: 02/12/24 12:30**

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.2 | U | 50.2 | | mg/Kg | | | 02/17/24 15:58 | 1 |

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 15:58 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 15:58 | 1 |
| OII Range Organics (Over C28-C36) | <50.2 | U | 50.2 | | mg/Kg | | 02/13/24 16:08 | 02/17/24 15:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *58* | *S1-* | *70 - 130* | *02/13/24 16:08* | *02/17/24 15:58* | *1* |
| *o-Terphenyl (Surr)* | *58* | *S1-* | *70 - 130* | *02/13/24 16:08* | *02/17/24 15:58* | *1* |

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## 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) |
| 880-39246-1 | C-5,O-4.1 | 82 | 86 |
| 880-39246-2 | SW-2.0-4.1 | 80 | 78 |
| 880-39246-3 | SW-3,0-4.1 | 81 | 78 |
| 880-39246-4 | C-12,0-4.1 | 102 | 105 |
| 880-39246-5 | SW-4,0-4.1 | 99 | 103 |
| 880-39246-6 | SW-5,0-4.1 | 107 | 102 |
| 880-39246-7 | C-4,0-4.1 | 102 | 102 |
| 880-39246-8 | C-63,0-4.1 | 104 | 105 |
| 880-39246-9 | C-2,0-4.1 | 102 | 103 |
| 880-39246-10 | SW-8.0-4.1 | 107 | 102 |
| 880-39246-11 | C-59,0-4.1 | 94 | 100 |
| 880-39246-12 | C-19,0-4.1 | 105 | 106 |
| 880-39246-13 | SW-7,0-4.1 | 102 | 104 |
| 880-39246-14 | SW-6,0-4.1 | 99 | 103 |
| 880-39246-15 | C-116,4.1 | 105 | 101 |
| 880-39246-16 | C-117,4.1 | 99 | 103 |
| 880-39246-17 | C-118,4.1 | 105 | 104 |
| 880-39246-18 | C-119,4.1 | 101 | 103 |
| 880-39246-19 | C-120,4.1 | 100 | 104 |
| 880-39246-20 | C-212,4.1 | 102 | 103 |
| 880-39246-21 | C-122,4.1 | 231 S1+ | 78 |
| 880-39246-21 MS | C-122,4.1 | 219 S1+ | 89 |
| 880-39246-21 MSD | C-122,4.1 | 215 S1+ | 79 |
| 880-39246-22 | C-123,4.1 | 186 S1+ | 75 |
| 880-39246-23 | C-124,4.1 | 246 S1+ | 78 |
| 880-39246-24 | C-125,4.1 | 261 S1+ | 112 |
| 880-39246-25 | C-126,4.1 | 238 S1+ | 98 |
| 880-39246-26 | C-127,4.1 | 249 S1+ | 85 |
| 880-39246-27 | C-128,4.1 | 238 S1+ | 103 |
| 880-39246-28 | C-129,4.1 | 206 S1+ | 80 |
| 880-39246-29 | C-130,4.1 | 250 S1+ | 93 |
| 880-39246-30 | C-131,4.1 | 209 S1+ | 76 |
| 880-39246-31 | C-132,4.1 | 166 S1+ | 75 |
| 880-39246-32 | C-133,4.1 | 240 S1+ | 82 |
| 880-39246-33 | C-134,4.1 | 240 S1+ | 100 |
| 880-39246-34 | C-135,4.1 | 240 S1+ | 82 |
| 880-39246-35 | C-136,4.1 | 248 S1+ | 91 |
| 880-39246-36 | C-137,4.1 | 276 S1+ | 102 |
| 880-39246-37 | C-138,4.1 | 266 S1+ | 114 |
| 880-39246-38 | C-139,4.1 | 280 S1+ | 119 |
| 880-39246-39 | C-140,4.1 | 384 S1+ | 126 |
| 880-39246-40 | C-141,4.1 | 273 S1+ | 109 |
| 880-39246-41 | C-142,4.1 | 92 | 102 |
| 880-39246-41 MS | C-142,4.1 | 107 | 103 |
| 880-39246-41 MSD | C-142,4.1 | 119 | 99 |
| 880-39246-42 | C-143,4.1 | 145 S1+ | 96 |
| 880-39246-43 | C-144.4.1 | 148 S1+ | 96 |
| 880-39246-44 | C-145,4.1 | 102 | 100 |
| 880-39246-45 | C-146,4.1 | 126 | 99 |

# Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | BFB1 (70-130) | DFBZ1 (70-130) |
| 880-39246-46 | C-148,4.1 | 119 | 102 |
| 880-39246-47 | C-149,4.1 | 115 | 106 |
| 880-39246-48 | C-150,4.1 | 122 | 103 |
| 880-39246-49 | C-151,4.1 | 127 | 101 |
| 880-39246-50 | C-152,4.1 | 116 | 100 |
| 880-39246-51 | C-153,4.1 | 114 | 105 |
| 880-39246-52 | C-154,4.1 | 123 | 105 |
| 880-39246-53 | C-147,4.1 | 128 | 104 |
| LCS 880-73253/1-A | Lab Control Sample | 107 | 122 |
| LCS 880-73271/1-A | Lab Control Sample | 142 S1+ | 96 |
| LCS 880-73272/1-A | Lab Control Sample | 169 S1+ | 82 |
| LCS 880-73275/1-A | Lab Control Sample | 107 | 101 |
| LCSD 880-73253/2-A | Lab Control Sample Dup | 108 | 117 |
| LCSD 880-73271/2-A | Lab Control Sample Dup | 114 | 96 |
| LCSD 880-73272/2-A | Lab Control Sample Dup | 202 S1+ | 87 |
| LCSD 880-73275/2-A | Lab Control Sample Dup | 116 | 99 |
| MB 880-73189/5-A | Method Blank | 69 S1- | 79 |
| MB 880-73253/5-A | Method Blank | 73 | 92 |
| MB 880-73256/5-A | Method Blank | 76 | 100 |
| MB 880-73271/5-A | Method Blank | 75 | 101 |
| MB 880-73272/5-A | Method Blank | 152 S1+ | 83 |
| MB 880-73275/5-A | Method Blank | 127 | 109 |

**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) |
| 880-39246-1 | C-5,O-4.1 | 128 | 106 |
| 880-39246-1 MS | C-5,O-4.1 | 103 | 79 |
| 880-39246-1 MSD | C-5,O-4.1 | 108 | 83 |
| 880-39246-2 | SW-2.0-4.1 | 128 | 107 |
| 880-39246-3 | SW-3,0-4.1 | 117 | 96 |
| 880-39246-4 | C-12,0-4.1 | 108 | 91 |
| 880-39246-5 | SW-4,0-4.1 | 106 | 92 |
| 880-39246-6 | SW-5,0-4.1 | 138 S1+ | 115 |
| 880-39246-7 | C-4,0-4.1 | 133 S1+ | 109 |
| 880-39246-8 | C-63,0-4.1 | 120 | 100 |
| 880-39246-9 | C-2,0-4.1 | 129 | 106 |
| 880-39246-10 | SW-8.0-4.1 | 114 | 95 |
| 880-39246-11 | C-59,0-4.1 | 110 | 91 |
| 880-39246-12 | C-19,0-4.1 | 119 | 98 |
| 880-39246-13 | SW-7,0-4.1 | 119 | 98 |
| 880-39246-14 | SW-6,0-4.1 | 108 | 91 |
| 880-39246-15 | C-116,4.1 | 109 | 93 |
| 880-39246-16 | C-117,4.1 | 98 | 82 |

# Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## 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) | | | | | | | | |
| 880-39246-17 | C-118,4.1 | 94 | 79 | | | | | | | | |
| 880-39246-18 | C-119,4.1 | 130 | 108 | | | | | | | | |
| 880-39246-19 | C-120,4.1 | 127 | 105 | | | | | | | | |
| 880-39246-20 | C-212,4.1 | 128 | 107 | | | | | | | | |
| 880-39246-21 | C-122,4.1 | 127 | 107 | | | | | | | | |
| 880-39246-21 MS | C-122,4.1 | 125 | 94 | | | | | | | | |
| 880-39246-21 MSD | C-122,4.1 | 94 | 71 | | | | | | | | |
| 880-39246-22 | C-123,4.1 | 111 | 90 | | | | | | | | |
| 880-39246-23 | C-124,4.1 | 124 | 103 | | | | | | | | |
| 880-39246-24 | C-125,4.1 | 110 | 92 | | | | | | | | |
| 880-39246-25 | C-126,4.1 | 123 | 104 | | | | | | | | |
| 880-39246-26 | C-127,4.1 | 116 | 102 | | | | | | | | |
| 880-39246-27 | C-128,4.1 | 139 S1+ | 117 | | | | | | | | |
| 880-39246-28 | C-129,4.1 | 101 | 88 | | | | | | | | |
| 880-39246-29 | C-130,4.1 | 109 | 92 | | | | | | | | |
| 880-39246-30 | C-131,4.1 | 112 | 93 | | | | | | | | |
| 880-39246-31 | C-132,4.1 | 92 | 76 | | | | | | | | |
| 880-39246-32 | C-133,4.1 | 118 | 99 | | | | | | | | |
| 880-39246-33 | C-134,4.1 | 121 | 101 | | | | | | | | |
| 880-39246-34 | C-135,4.1 | 119 | 99 | | | | | | | | |
| 880-39246-35 | C-136,4.1 | 116 | 99 | | | | | | | | |
| 880-39246-36 | C-137,4.1 | 100 | 87 | | | | | | | | |
| 880-39246-37 | C-138,4.1 | 111 | 92 | | | | | | | | |
| 880-39246-38 | C-139,4.1 | 113 | 94 | | | | | | | | |
| 880-39246-39 | C-140,4.1 | 130 | 111 | | | | | | | | |
| 880-39246-40 | C-141,4.1 | 103 | 85 | | | | | | | | |
| 880-39246-41 | C-142,4.1 | 85 | 88 | | | | | | | | |
| 880-39246-41 MS | C-142,4.1 | 65 S1- | 62 S1- | | | | | | | | |
| 880-39246-41 MSD | C-142,4.1 | 74 | 69 S1- | | | | | | | | |
| 880-39246-42 | C-143,4.1 | 68 S1- | 70 | | | | | | | | |
| 880-39246-43 | C-144.4.1 | 85 | 87 | | | | | | | | |
| 880-39246-44 | C-145,4.1 | 81 | 85 | | | | | | | | |
| 880-39246-45 | C-146,4.1 | 65 S1- | 66 S1- | | | | | | | | |
| 880-39246-46 | C-148,4.1 | 93 | 99 | | | | | | | | |
| 880-39246-47 | C-149,4.1 | 80 | 84 | | | | | | | | |
| 880-39246-48 | C-150,4.1 | 77 | 81 | | | | | | | | |
| 880-39246-49 | C-151,4.1 | 93 | 96 | | | | | | | | |
| 880-39246-50 | C-152,4.1 | 76 | 78 | | | | | | | | |
| 880-39246-51 | C-153,4.1 | 93 | 97 | | | | | | | | |
| 880-39246-52 | C-154,4.1 | 84 | 87 | | | | | | | | |
| 880-39246-53 | C-147,4.1 | 58 S1- | 58 S1- | | | | | | | | |
| LCS 880-73050/2-A | Lab Control Sample | 129 | 138 S1+ | | | | | | | | |
| LCS 880-73051/2-A | Lab Control Sample | 95 | 101 | | | | | | | | |
| LCS 880-73083/2-A | Lab Control Sample | 84 | 86 | | | | | | | | |
| LCSD 880-73050/3-A | Lab Control Sample Dup | 114 | 115 | | | | | | | | |
| LCSD 880-73051/3-A | Lab Control Sample Dup | 111 | 111 | | | | | | | | |
| LCSD 880-73083/3-A | Lab Control Sample Dup | 96 | 98 | | | | | | | | |
| MB 880-73050/1-A | Method Blank | 224 S1+ | 196 S1+ | | | | | | | | |
| MB 880-73051/1-A | Method Blank | 213 S1+ | 184 S1+ | | | | | | | | |
| MB 880-73083/1-A | Method Blank | 187 S1+ | 207 S1+ | | | | | | | | |

# Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

**Surrogate Legend**

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

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

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

**Lab Sample ID: MB 880-73189/5-A**
**Matrix: Solid**
**Analysis Batch: 73320**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 73189**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/14/24 16:41 | 02/16/24 21:44 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/14/24 16:41 | 02/16/24 21:44 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/14/24 16:41 | 02/16/24 21:44 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 02/14/24 16:41 | 02/16/24 21:44 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/14/24 16:41 | 02/16/24 21:44 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 02/14/24 16:41 | 02/16/24 21:44 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *69* | *S1-* | *70 - 130* | *02/14/24 16:41* | *02/16/24 21:44* | *1* |
| *1,4-Difluorobenzene (Surr)* | *79* | | *70 - 130* | *02/14/24 16:41* | *02/16/24 21:44* | *1* |

**Lab Sample ID: MB 880-73253/5-A**
**Matrix: Solid**
**Analysis Batch: 73320**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 73253**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 08:24 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 08:24 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 08:24 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 08:24 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 08:24 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 12:26 | 02/17/24 08:24 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *73* | | *70 - 130* | *02/15/24 12:26* | *02/17/24 08:24* | *1* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* | *02/15/24 12:26* | *02/17/24 08:24* | *1* |

**Lab Sample ID: LCS 880-73253/1-A**
**Matrix: Solid**
**Analysis Batch: 73320**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 73253**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.09136 | | mg/Kg | | 91 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.08290 | | mg/Kg | | 83 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.09001 | | mg/Kg | | 90 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.1872 | | mg/Kg | | 94 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.09263 | | mg/Kg | | 93 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *107* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *122* | | *70 - 130* |

**Lab Sample ID: LCSD 880-73253/2-A**
**Matrix: Solid**
**Analysis Batch: 73320**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 73253**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1037 | | mg/Kg | | 104 | 70 - 130 | 13 | 35 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

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

**Lab Sample ID: LCSD 880-73253/2-A**
**Matrix: Solid**
**Analysis Batch: 73320**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 73253**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Toluene | | | 0.100 | 0.08674 | | mg/Kg | | 87 | 70 - 130 | 5 | 35 |
| Ethylbenzene | | | 0.100 | 0.1011 | | mg/Kg | | 101 | 70 - 130 | 12 | 35 |
| m,p-Xylenes | | | 0.200 | 0.2073 | | mg/Kg | | 104 | 70 - 130 | 10 | 35 |
| o-Xylene | | | 0.100 | 0.1022 | | mg/Kg | | 102 | 70 - 130 | 10 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *108* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *117* | | *70 - 130* |

**Lab Sample ID: MB 880-73256/5-A**
**Matrix: Solid**
**Analysis Batch: 73431**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 73256**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:35 | 02/19/24 11:18 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:35 | 02/19/24 11:18 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:35 | 02/19/24 11:18 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 12:35 | 02/19/24 11:18 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 12:35 | 02/19/24 11:18 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 12:35 | 02/19/24 11:18 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *76* | | *70 - 130* | *02/15/24 12:35* | *02/19/24 11:18* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *02/15/24 12:35* | *02/19/24 11:18* | *1* |

**Lab Sample ID: MB 880-73271/5-A**
**Matrix: Solid**
**Analysis Batch: 73431**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 73271**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 00:01 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 00:01 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 00:01 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 00:01 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 00:01 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 14:52 | 02/20/24 00:01 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *75* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 00:01* | *1* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *02/15/24 14:52* | *02/20/24 00:01* | *1* |

**Lab Sample ID: LCS 880-73271/1-A**
**Matrix: Solid**
**Analysis Batch: 73431**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 73271**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.08443 | | mg/Kg | | 84 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.08528 | | mg/Kg | | 85 | 70 - 130 | | |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

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

**Lab Sample ID: LCS 880-73271/1-A**
**Matrix: Solid**
**Analysis Batch: 73431**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 73271**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 0.100 | 0.1035 | | mg/Kg | | 104 | 70 - 130 |
| m,p-Xylenes | 0.200 | 0.2285 | | mg/Kg | | 114 | 70 - 130 |
| o-Xylene | 0.100 | 0.1181 | | mg/Kg | | 118 | 70 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *142* | *S1+* | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* |

**Lab Sample ID: LCSD 880-73271/2-A**
**Matrix: Solid**
**Analysis Batch: 73431**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 73271**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.100 | 0.09330 | | mg/Kg | | 93 | 70 - 130 | 10 | 35 |
| Toluene | 0.100 | 0.08280 | | mg/Kg | | 83 | 70 - 130 | 3 | 35 |
| Ethylbenzene | 0.100 | 0.08836 | | mg/Kg | | 88 | 70 - 130 | 16 | 35 |
| m,p-Xylenes | 0.200 | 0.1820 | | mg/Kg | | 91 | 70 - 130 | 23 | 35 |
| o-Xylene | 0.100 | 0.09427 | | mg/Kg | | 94 | 70 - 130 | 22 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* |

**Lab Sample ID: MB 880-73272/5-A**
**Matrix: Solid**
**Analysis Batch: 73428**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 73272**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | mg/Kg | | 02/15/24 14:55 | 02/19/24 11:50 | 1 |
| Toluene | <0.00200 | U | 0.00200 | mg/Kg | | 02/15/24 14:55 | 02/19/24 11:50 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | mg/Kg | | 02/15/24 14:55 | 02/19/24 11:50 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | mg/Kg | | 02/15/24 14:55 | 02/19/24 11:50 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | mg/Kg | | 02/15/24 14:55 | 02/19/24 11:50 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | mg/Kg | | 02/15/24 14:55 | 02/19/24 11:50 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *152* | *S1+* | *70 - 130* | *02/15/24 14:55* | *02/19/24 11:50* | *1* |
| *1,4-Difluorobenzene (Surr)* | *83* | | *70 - 130* | *02/15/24 14:55* | *02/19/24 11:50* | *1* |

**Lab Sample ID: LCS 880-73272/1-A**
**Matrix: Solid**
**Analysis Batch: 73428**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 73272**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.100 | 0.1083 | | mg/Kg | | 108 | 70 - 130 |
| Toluene | 0.100 | 0.1232 | | mg/Kg | | 123 | 70 - 130 |
| Ethylbenzene | 0.100 | 0.1298 | | mg/Kg | | 130 | 70 - 130 |
| m,p-Xylenes | 0.200 | 0.2884 | *+ | mg/Kg | | 144 | 70 - 130 |

Eurofins Midland

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

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

### Lab Sample ID: LCS 880-73272/1-A
### Matrix: Solid
### Analysis Batch: 73428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73272

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | | | 0.100 | 0.1306 | *+ | mg/Kg | | 131 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *169* | *S1+* | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *82* | | *70 - 130* |

### Lab Sample ID: LCSD 880-73272/2-A
### Matrix: Solid
### Analysis Batch: 73428

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73272

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1264 | | mg/Kg | | 126 | 70 - 130 | 15 | 35 |
| Toluene | | | 0.100 | 0.1523 | *+ | mg/Kg | | 152 | 70 - 130 | 21 | 35 |
| Ethylbenzene | | | 0.100 | 0.1572 | *+ | mg/Kg | | 157 | 70 - 130 | 19 | 35 |
| m,p-Xylenes | | | 0.200 | 0.3925 | *+ | mg/Kg | | 196 | 70 - 130 | 31 | 35 |
| o-Xylene | | | 0.100 | 0.1685 | *+ | mg/Kg | | 168 | 70 - 130 | 25 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *202* | *S1+* | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *87* | | *70 - 130* |

### Lab Sample ID: 880-39246-21 MS
### Matrix: Solid
### Analysis Batch: 73428

Client Sample ID: C-122,4.1
Prep Type: Total/NA
Prep Batch: 73272

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.100 | 0.1250 | | mg/Kg | | 125 | 70 - 130 | | |
| Toluene | <0.00199 | U *+ F1 | 0.100 | 0.1455 | F1 | mg/Kg | | 145 | 70 - 130 | | |
| Ethylbenzene | <0.00199 | U *+ F1 | 0.100 | 0.1526 | F1 | mg/Kg | | 151 | 70 - 130 | | |
| m,p-Xylenes | <0.00398 | U *+ F1 *-1 | 0.200 | 0.3529 | F1 | mg/Kg | | 176 | 70 - 130 | | |
| o-Xylene | <0.00199 | U *+ F1 | 0.100 | 0.1527 | F1 | mg/Kg | | 152 | 70 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *219* | *S1+* | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *89* | | *70 - 130* |

### Lab Sample ID: 880-39246-21 MSD
### Matrix: Solid
### Analysis Batch: 73428

Client Sample ID: C-122,4.1
Prep Type: Total/NA
Prep Batch: 73272

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.101 | 0.1129 | | mg/Kg | | 112 | 70 - 130 | 10 | 35 |
| Toluene | <0.00199 | U *+ F1 | 0.101 | 0.1387 | F1 | mg/Kg | | 138 | 70 - 130 | 5 | 35 |
| Ethylbenzene | <0.00199 | U *+ F1 | 0.101 | 0.1438 | F1 | mg/Kg | | 142 | 70 - 130 | 6 | 35 |
| m,p-Xylenes | <0.00398 | U *+ F1 *-1 | 0.201 | 0.3294 | F1 | mg/Kg | | 164 | 70 - 130 | 7 | 35 |
| o-Xylene | <0.00199 | U *+ F1 | 0.101 | 0.1538 | F1 | mg/Kg | | 153 | 70 - 130 | 1 | 35 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-39246-21 MSD**
**Matrix: Solid**
**Analysis Batch: 73428**

**Client Sample ID: C-122,4.1**
**Prep Type: Total/NA**
**Prep Batch: 73272**

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 215 | S1+ | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 79 | | 70 - 130 |

**Lab Sample ID: MB 880-73275/5-A**
**Matrix: Solid**
**Analysis Batch: 73718**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 73275**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:09 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:09 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:09 | 1 |
| m,p-Xylenes | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:09 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:09 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 02/15/24 15:00 | 02/21/24 12:09 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 127 | | 70 - 130 | 02/15/24 15:00 | 02/21/24 12:09 | 1 |
| 1,4-Difluorobenzene (Surr) | 109 | | 70 - 130 | 02/15/24 15:00 | 02/21/24 12:09 | 1 |

**Lab Sample ID: LCS 880-73275/1-A**
**Matrix: Solid**
**Analysis Batch: 73718**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 73275**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1238 | | mg/Kg | | 124 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.1021 | | mg/Kg | | 102 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.1226 | | mg/Kg | | 123 | 70 - 130 | | |
| m,p-Xylenes | | | 0.200 | 0.2299 | | mg/Kg | | 115 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.1080 | | mg/Kg | | 108 | 70 - 130 | | |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 107 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 101 | | 70 - 130 |

**Lab Sample ID: LCSD 880-73275/2-A**
**Matrix: Solid**
**Analysis Batch: 73718**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 73275**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1182 | | mg/Kg | | 118 | 70 - 130 | 5 | 35 |
| Toluene | | | 0.100 | 0.1056 | | mg/Kg | | 106 | 70 - 130 | 3 | 35 |
| Ethylbenzene | | | 0.100 | 0.1263 | | mg/Kg | | 126 | 70 - 130 | 3 | 35 |
| m,p-Xylenes | | | 0.200 | 0.2476 | | mg/Kg | | 124 | 70 - 130 | 7 | 35 |
| o-Xylene | | | 0.100 | 0.1171 | | mg/Kg | | 117 | 70 - 130 | 8 | 35 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 116 | | 70 - 130 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

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

**Lab Sample ID: LCSD 880-73275/2-A**
**Matrix: Solid**
**Analysis Batch: 73718**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 73275**

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

**Lab Sample ID: 880-39246-41 MS**
**Matrix: Solid**
**Analysis Batch: 73718**

**Client Sample ID: C-142,4.1**
**Prep Type: Total/NA**
**Prep Batch: 73275**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.100 | 0.1063 | | mg/Kg | | 106 | 70 - 130 |
| Toluene | <0.00199 | U | 0.100 | 0.08741 | | mg/Kg | | 87 | 70 - 130 |
| Ethylbenzene | <0.00199 | U | 0.100 | 0.09905 | | mg/Kg | | 99 | 70 - 130 |
| m,p-Xylenes | <0.00398 | U | 0.200 | 0.1785 | | mg/Kg | | 89 | 70 - 130 |
| o-Xylene | <0.00199 | U | 0.100 | 0.08344 | | mg/Kg | | 83 | 70 - 130 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 107 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 103 | | 70 - 130 |

**Lab Sample ID: 880-39246-41 MSD**
**Matrix: Solid**
**Analysis Batch: 73718**

**Client Sample ID: C-142,4.1**
**Prep Type: Total/NA**
**Prep Batch: 73275**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.101 | 0.1120 | | mg/Kg | | 111 | 70 - 130 | 5 | 35 |
| Toluene | <0.00199 | U | 0.101 | 0.09533 | | mg/Kg | | 95 | 70 - 130 | 9 | 35 |
| Ethylbenzene | <0.00199 | U | 0.101 | 0.1027 | | mg/Kg | | 102 | 70 - 130 | 4 | 35 |
| m,p-Xylenes | <0.00398 | U | 0.201 | 0.2053 | | mg/Kg | | 102 | 70 - 130 | 14 | 35 |
| o-Xylene | <0.00199 | U | 0.101 | 0.09952 | | mg/Kg | | 99 | 70 - 130 | 18 | 35 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene (Surr) | 119 | | 70 - 130 |
| 1,4-Difluorobenzene (Surr) | 99 | | 70 - 130 |

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

**Lab Sample ID: MB 880-73050/1-A**
**Matrix: Solid**
**Analysis Batch: 73400**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 73050**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.0 | U | 50.0 | mg/Kg | | 02/13/24 12:57 | 02/17/24 07:48 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | mg/Kg | | 02/13/24 12:57 | 02/17/24 07:48 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | mg/Kg | | 02/13/24 12:57 | 02/17/24 07:48 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane (Surr) | 224 | S1+ | 70 - 130 | 02/13/24 12:57 | 02/17/24 07:48 | 1 |
| o-Terphenyl (Surr) | 196 | S1+ | 70 - 130 | 02/13/24 12:57 | 02/17/24 07:48 | 1 |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

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

### Lab Sample ID: LCS 880-73050/2-A
**Matrix: Solid**
**Analysis Batch: 73400**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 73050**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | | | 1000 | 1088 | | mg/Kg | | 109 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 1092 | | mg/Kg | | 109 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *129* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *138* | *S1+* | *70 - 130* |

### Lab Sample ID: LCSD 880-73050/3-A
**Matrix: Solid**
**Analysis Batch: 73400**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 73050**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | | | 1000 | 938.0 | | mg/Kg | | 94 | 70 - 130 | 15 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 985.7 | | mg/Kg | | 99 | 70 - 130 | 10 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *114* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *115* | | *70 - 130* |

### Lab Sample ID: 880-39246-1 MS
**Matrix: Solid**
**Analysis Batch: 73400**

**Client Sample ID: C-5,O-4.1**
**Prep Type: Total/NA**
**Prep Batch: 73050**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.7 | U | 1010 | 857.4 | | mg/Kg | | 81 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <49.7 | U | 1010 | 985.8 | | mg/Kg | | 97 | 70 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *103* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *79* | | *70 - 130* |

### Lab Sample ID: 880-39246-1 MSD
**Matrix: Solid**
**Analysis Batch: 73400**

**Client Sample ID: C-5,O-4.1**
**Prep Type: Total/NA**
**Prep Batch: 73050**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.7 | U | 1010 | 892.7 | | mg/Kg | | 85 | 70 - 130 | 4 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.7 | U | 1010 | 1031 | | mg/Kg | | 101 | 70 - 130 | 4 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *108* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *83* | | *70 - 130* |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

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

### Lab Sample ID: MB 880-73051/1-A
**Matrix: Solid**
**Analysis Batch: 73400**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 73051**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 19:18 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 19:18 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 13:00 | 02/17/24 19:18 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *213* | *S1+* | *70 - 130* | *02/13/24 13:00* | *02/17/24 19:18* | *1* |
| *o-Terphenyl (Surr)* | *184* | *S1+* | *70 - 130* | *02/13/24 13:00* | *02/17/24 19:18* | *1* |

### Lab Sample ID: LCS 880-73051/2-A
**Matrix: Solid**
**Analysis Batch: 73400**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 73051**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | | | 1000 | 859.8 | | mg/Kg | | 86 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 778.4 | | mg/Kg | | 78 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *95* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *101* | | *70 - 130* |

### Lab Sample ID: LCSD 880-73051/3-A
**Matrix: Solid**
**Analysis Batch: 73400**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 73051**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | | | 1000 | 959.8 | | mg/Kg | | 96 | 70 - 130 | 11 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 953.5 | | mg/Kg | | 95 | 70 - 130 | 20 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *111* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *111* | | *70 - 130* |

### Lab Sample ID: 880-39246-21 MS
**Matrix: Solid**
**Analysis Batch: 73400**

**Client Sample ID: C-122,4.1**
**Prep Type: Total/NA**
**Prep Batch: 73051**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 1000 | 1033 | | mg/Kg | | 101 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <49.9 | U F2 | 1000 | 1279 | | mg/Kg | | 126 | 70 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *125* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *94* | | *70 - 130* |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-39246-21 MSD**
**Matrix: Solid**
**Analysis Batch: 73400**

**Client Sample ID: C-122,4.1**
**Prep Type: Total/NA**
**Prep Batch: 73051**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.9 | U | 1000 | 842.2 | | mg/Kg | | 82 | 70 - 130 | 20 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U F2 | 1000 | 973.5 | F2 | mg/Kg | | 95 | 70 - 130 | 27 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *94* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *71* | | *70 - 130* |

**Lab Sample ID: MB 880-73083/1-A**
**Matrix: Solid**
**Analysis Batch: 73402**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 73083**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 16:07 | 02/17/24 07:48 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 16:07 | 02/17/24 07:48 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 02/13/24 16:07 | 02/17/24 07:48 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane (Surr)* | *187* | *S1+* | *70 - 130* | *02/13/24 16:07* | *02/17/24 07:48* | *1* |
| *o-Terphenyl (Surr)* | *207* | *S1+* | *70 - 130* | *02/13/24 16:07* | *02/17/24 07:48* | *1* |

**Lab Sample ID: LCS 880-73083/2-A**
**Matrix: Solid**
**Analysis Batch: 73402**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 73083**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | | | 1000 | 949.2 | | mg/Kg | | 95 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 817.1 | | mg/Kg | | 82 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *84* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *86* | | *70 - 130* |

**Lab Sample ID: LCSD 880-73083/3-A**
**Matrix: Solid**
**Analysis Batch: 73402**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 73083**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | | | 1000 | 803.6 | | mg/Kg | | 80 | 70 - 130 | 17 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 837.6 | | mg/Kg | | 84 | 70 - 130 | 2 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *96* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *98* | | *70 - 130* |

# QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

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

**Lab Sample ID: 880-39246-41 MS**
**Matrix: Solid**
**Analysis Batch: 73402**

**Client Sample ID: C-142,4.1**
**Prep Type: Total/NA**
**Prep Batch: 73083**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.6 | U | 1010 | 991.8 | | mg/Kg | | 94 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <49.6 | U F1 | 1010 | 615.0 | F1 | mg/Kg | | 58 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *65* | *S1-* | *70 - 130* |
| *o-Terphenyl (Surr)* | *62* | *S1-* | *70 - 130* |

**Lab Sample ID: 880-39246-41 MSD**
**Matrix: Solid**
**Analysis Batch: 73402**

**Client Sample ID: C-142,4.1**
**Prep Type: Total/NA**
**Prep Batch: 73083**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | <49.6 | U | 1010 | 1107 | | mg/Kg | | 106 | 70 - 130 | 11 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.6 | U F1 | 1010 | 693.0 | F1 | mg/Kg | | 66 | 70 - 130 | 12 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane (Surr)* | *74* | | *70 - 130* |
| *o-Terphenyl (Surr)* | *69* | *S1-* | *70 - 130* |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## GC VOA

### Prep Batch: 73189

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-73189/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Prep Batch: 73253

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-1 | C-5,O-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-2 | SW-2.0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-3 | SW-3,0-4.1 | Total/NA | Solid | 5035 | |
| MB 880-73253/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-73253/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-73253/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |

### Prep Batch: 73256

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-73256/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Prep Batch: 73271

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-4 | C-12,0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-5 | SW-4,0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-6 | SW-5,0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-7 | C-4,0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-8 | C-63,0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-9 | C-2,0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-10 | SW-8.0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-11 | C-59,0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-12 | C-19,0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-13 | SW-7,0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-14 | SW-6,0-4.1 | Total/NA | Solid | 5035 | |
| 880-39246-15 | C-116,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-16 | C-117,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-17 | C-118,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-18 | C-119,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-19 | C-120,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-20 | C-212,4.1 | Total/NA | Solid | 5035 | |
| MB 880-73271/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-73271/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-73271/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |

### Prep Batch: 73272

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-21 | C-122,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-22 | C-123,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-23 | C-124,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-24 | C-125,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-25 | C-126,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-26 | C-127,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-27 | C-128,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-28 | C-129,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-29 | C-130,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-30 | C-131,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-31 | C-132,4.1 | Total/NA | Solid | 5035 | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## GC VOA (Continued)

### Prep Batch: 73272 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-32 | C-133,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-33 | C-134,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-34 | C-135,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-35 | C-136,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-36 | C-137,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-37 | C-138,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-38 | C-139,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-39 | C-140,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-40 | C-141,4.1 | Total/NA | Solid | 5035 | |
| MB 880-73272/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-73272/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-73272/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-39246-21 MS | C-122,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-21 MSD | C-122,4.1 | Total/NA | Solid | 5035 | |

### Prep Batch: 73275

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-41 | C-142,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-42 | C-143,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-43 | C-144.4.1 | Total/NA | Solid | 5035 | |
| 880-39246-44 | C-145,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-45 | C-146,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-46 | C-148,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-47 | C-149,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-48 | C-150,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-49 | C-151,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-50 | C-152,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-51 | C-153,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-52 | C-154,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-53 | C-147,4.1 | Total/NA | Solid | 5035 | |
| MB 880-73275/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-73275/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-73275/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-39246-41 MS | C-142,4.1 | Total/NA | Solid | 5035 | |
| 880-39246-41 MSD | C-142,4.1 | Total/NA | Solid | 5035 | |

### Analysis Batch: 73320

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-1 | C-5,O-4.1 | Total/NA | Solid | 8021B | 73253 |
| 880-39246-2 | SW-2.0-4.1 | Total/NA | Solid | 8021B | 73253 |
| 880-39246-3 | SW-3,0-4.1 | Total/NA | Solid | 8021B | 73253 |
| MB 880-73189/5-A | Method Blank | Total/NA | Solid | 8021B | 73189 |
| MB 880-73253/5-A | Method Blank | Total/NA | Solid | 8021B | 73253 |
| LCS 880-73253/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 73253 |
| LCSD 880-73253/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 73253 |

### Analysis Batch: 73428

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-21 | C-122,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-22 | C-123,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-23 | C-124,4.1 | Total/NA | Solid | 8021B | 73272 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## GC VOA (Continued)

### Analysis Batch: 73428 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-24 | C-125,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-25 | C-126,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-26 | C-127,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-27 | C-128,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-28 | C-129,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-29 | C-130,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-30 | C-131,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-31 | C-132,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-32 | C-133,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-33 | C-134,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-34 | C-135,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-35 | C-136,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-36 | C-137,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-37 | C-138,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-38 | C-139,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-39 | C-140,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-40 | C-141,4.1 | Total/NA | Solid | 8021B | 73272 |
| MB 880-73272/5-A | Method Blank | Total/NA | Solid | 8021B | 73272 |
| LCS 880-73272/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 73272 |
| LCSD 880-73272/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 73272 |
| 880-39246-21 MS | C-122,4.1 | Total/NA | Solid | 8021B | 73272 |
| 880-39246-21 MSD | C-122,4.1 | Total/NA | Solid | 8021B | 73272 |

### Analysis Batch: 73431

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-4 | C-12,0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-5 | SW-4,0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-6 | SW-5,0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-7 | C-4,0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-8 | C-63,0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-9 | C-2,0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-10 | SW-8.0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-11 | C-59,0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-12 | C-19,0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-13 | SW-7,0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-14 | SW-6,0-4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-15 | C-116,4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-16 | C-117,4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-17 | C-118,4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-18 | C-119,4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-19 | C-120,4.1 | Total/NA | Solid | 8021B | 73271 |
| 880-39246-20 | C-212,4.1 | Total/NA | Solid | 8021B | 73271 |
| MB 880-73256/5-A | Method Blank | Total/NA | Solid | 8021B | 73256 |
| MB 880-73271/5-A | Method Blank | Total/NA | Solid | 8021B | 73271 |
| LCS 880-73271/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 73271 |
| LCSD 880-73271/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 73271 |

### Analysis Batch: 73591

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-1 | C-5,O-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-2 | SW-2.0-4.1 | Total/NA | Solid | Total BTEX | |

# QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## GC VOA (Continued)

### Analysis Batch: 73591 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-3 | SW-3,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-4 | C-12,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-5 | SW-4,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-6 | SW-5,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-7 | C-4,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-8 | C-63,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-9 | C-2,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-10 | SW-8.0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-11 | C-59,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-12 | C-19,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-13 | SW-7,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-14 | SW-6,0-4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-15 | C-116,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-16 | C-117,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-17 | C-118,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-18 | C-119,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-19 | C-120,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-20 | C-212,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-21 | C-122,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-22 | C-123,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-23 | C-124,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-24 | C-125,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-25 | C-126,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-26 | C-127,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-27 | C-128,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-28 | C-129,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-29 | C-130,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-30 | C-131,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-31 | C-132,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-32 | C-133,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-33 | C-134,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-34 | C-135,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-35 | C-136,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-36 | C-137,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-37 | C-138,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-38 | C-139,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-39 | C-140,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-40 | C-141,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-41 | C-142,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-42 | C-143,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-43 | C-144.4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-44 | C-145,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-45 | C-146,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-46 | C-148,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-47 | C-149,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-48 | C-150,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-49 | C-151,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-50 | C-152,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-51 | C-153,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-52 | C-154,4.1 | Total/NA | Solid | Total BTEX | |
| 880-39246-53 | C-147,4.1 | Total/NA | Solid | Total BTEX | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## GC VOA

### Analysis Batch: 73718

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-41 | C-142,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-42 | C-143,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-43 | C-144.4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-44 | C-145,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-45 | C-146,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-46 | C-148,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-47 | C-149,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-48 | C-150,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-49 | C-151,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-50 | C-152,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-51 | C-153,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-52 | C-154,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-53 | C-147,4.1 | Total/NA | Solid | 8021B | 73275 |
| MB 880-73275/5-A | Method Blank | Total/NA | Solid | 8021B | 73275 |
| LCS 880-73275/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 73275 |
| LCSD 880-73275/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 73275 |
| 880-39246-41 MS | C-142,4.1 | Total/NA | Solid | 8021B | 73275 |
| 880-39246-41 MSD | C-142,4.1 | Total/NA | Solid | 8021B | 73275 |

## GC Semi VOA

### Prep Batch: 73050

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-1 | C-5,O-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-2 | SW-2.0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-3 | SW-3,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-4 | C-12,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-5 | SW-4,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-6 | SW-5,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-7 | C-4,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-8 | C-63,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-9 | C-2,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-10 | SW-8.0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-11 | C-59,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-12 | C-19,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-13 | SW-7,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-14 | SW-6,0-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-15 | C-116,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-16 | C-117,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-17 | C-118,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-18 | C-119,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-19 | C-120,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-20 | C-212,4.1 | Total/NA | Solid | 8015NM Prep | |
| MB 880-73050/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-73050/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-73050/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-39246-1 MS | C-5,O-4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-1 MSD | C-5,O-4.1 | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## GC Semi VOA

### Prep Batch: 73051

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-21 | C-122,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-22 | C-123,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-23 | C-124,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-24 | C-125,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-25 | C-126,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-26 | C-127,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-27 | C-128,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-28 | C-129,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-29 | C-130,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-30 | C-131,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-31 | C-132,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-32 | C-133,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-33 | C-134,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-34 | C-135,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-35 | C-136,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-36 | C-137,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-37 | C-138,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-38 | C-139,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-39 | C-140,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-40 | C-141,4.1 | Total/NA | Solid | 8015NM Prep | |
| MB 880-73051/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-73051/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-73051/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-39246-21 MS | C-122,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-21 MSD | C-122,4.1 | Total/NA | Solid | 8015NM Prep | |

### Prep Batch: 73083

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-41 | C-142,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-42 | C-143,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-43 | C-144.4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-44 | C-145,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-45 | C-146,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-46 | C-148,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-47 | C-149,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-48 | C-150,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-49 | C-151,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-50 | C-152,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-51 | C-153,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-52 | C-154,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-53 | C-147,4.1 | Total/NA | Solid | 8015NM Prep | |
| MB 880-73083/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-73083/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-73083/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-39246-41 MS | C-142,4.1 | Total/NA | Solid | 8015NM Prep | |
| 880-39246-41 MSD | C-142,4.1 | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 73400

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-1 | C-5,O-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-2 | SW-2.0-4.1 | Total/NA | Solid | 8015B NM | 73050 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## GC Semi VOA (Continued)

### Analysis Batch: 73400 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-3 | SW-3,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-4 | C-12,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-5 | SW-4,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-6 | SW-5,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-7 | C-4,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-8 | C-63,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-9 | C-2,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-10 | SW-8.0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-11 | C-59,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-12 | C-19,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-13 | SW-7,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-14 | SW-6,0-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-15 | C-116,4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-16 | C-117,4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-17 | C-118,4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-18 | C-119,4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-19 | C-120,4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-20 | C-212,4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-21 | C-122,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-22 | C-123,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-23 | C-124,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-24 | C-125,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-25 | C-126,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-26 | C-127,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-27 | C-128,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-28 | C-129,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-29 | C-130,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-30 | C-131,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-31 | C-132,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-32 | C-133,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-33 | C-134,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-34 | C-135,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-35 | C-136,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-36 | C-137,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-37 | C-138,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-38 | C-139,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-39 | C-140,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-40 | C-141,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| MB 880-73050/1-A | Method Blank | Total/NA | Solid | 8015B NM | 73050 |
| MB 880-73051/1-A | Method Blank | Total/NA | Solid | 8015B NM | 73051 |
| LCS 880-73050/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 73050 |
| LCS 880-73051/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 73051 |
| LCSD 880-73050/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 73050 |
| LCSD 880-73051/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-1 MS | C-5,O-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-1 MSD | C-5,O-4.1 | Total/NA | Solid | 8015B NM | 73050 |
| 880-39246-21 MS | C-122,4.1 | Total/NA | Solid | 8015B NM | 73051 |
| 880-39246-21 MSD | C-122,4.1 | Total/NA | Solid | 8015B NM | 73051 |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## GC Semi VOA

### Analysis Batch: 73402

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-41 | C-142,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-42 | C-143,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-43 | C-144.4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-44 | C-145,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-45 | C-146,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-46 | C-148,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-47 | C-149,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-48 | C-150,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-49 | C-151,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-50 | C-152,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-51 | C-153,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-52 | C-154,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-53 | C-147,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| MB 880-73083/1-A | Method Blank | Total/NA | Solid | 8015B NM | 73083 |
| LCS 880-73083/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 73083 |
| LCSD 880-73083/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-41 MS | C-142,4.1 | Total/NA | Solid | 8015B NM | 73083 |
| 880-39246-41 MSD | C-142,4.1 | Total/NA | Solid | 8015B NM | 73083 |

### Analysis Batch: 73535

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-1 | C-5,O-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-2 | SW-2.0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-3 | SW-3,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-4 | C-12,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-5 | SW-4,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-6 | SW-5,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-7 | C-4,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-8 | C-63,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-9 | C-2,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-10 | SW-8.0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-11 | C-59,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-12 | C-19,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-13 | SW-7,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-14 | SW-6,0-4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-15 | C-116,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-16 | C-117,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-17 | C-118,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-18 | C-119,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-19 | C-120,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-20 | C-212,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-21 | C-122,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-22 | C-123,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-23 | C-124,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-24 | C-125,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-25 | C-126,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-26 | C-127,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-27 | C-128,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-28 | C-129,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-29 | C-130,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-30 | C-131,4.1 | Total/NA | Solid | 8015 NM | |

# QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## GC Semi VOA (Continued)

### Analysis Batch: 73535 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-39246-31 | C-132,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-32 | C-133,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-33 | C-134,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-34 | C-135,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-35 | C-136,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-36 | C-137,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-37 | C-138,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-38 | C-139,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-39 | C-140,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-40 | C-141,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-41 | C-142,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-42 | C-143,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-43 | C-144.4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-44 | C-145,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-45 | C-146,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-46 | C-148,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-47 | C-149,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-48 | C-150,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-49 | C-151,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-50 | C-152,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-51 | C-153,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-52 | C-154,4.1 | Total/NA | Solid | 8015 NM | |
| 880-39246-53 | C-147,4.1 | Total/NA | Solid | 8015 NM | |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-5,O-4.1

**Lab Sample ID: 880-39246-1**
**Matrix: Solid**
**Date Collected: 02/06/24 11:08**
**Date Received: 02/12/24 12:30**

| 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 | 73253 | 02/15/24 12:26 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73320 | 02/17/24 10:49 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/17/24 10:49 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.06 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 10:24 | SM | EET MID |

## Client Sample ID: SW-2.0-4.1

**Lab Sample ID: 880-39246-2**
**Matrix: Solid**
**Date Collected: 02/06/24 11:29**
**Date Received: 02/12/24 12:30**

| 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 | 73253 | 02/15/24 12:26 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73320 | 02/17/24 11:10 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/17/24 11:10 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 11:31 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.90 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 11:31 | SM | EET MID |

## Client Sample ID: SW-3,0-4.1

**Lab Sample ID: 880-39246-3**
**Matrix: Solid**
**Date Collected: 02/06/24 14:59**
**Date Received: 02/12/24 12:30**

| 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 | 73253 | 02/15/24 12:26 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73320 | 02/17/24 11:31 | SM | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/17/24 11:31 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 11:53 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 11:53 | SM | EET MID |

## Client Sample ID: C-12,0-4.1

**Lab Sample ID: 880-39246-4**
**Matrix: Solid**
**Date Collected: 02/07/24 09:47**
**Date Received: 02/12/24 12:30**

| 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 | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 01:25 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 01:25 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 12:15 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 12:15 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: SW-4,0-4.1

**Lab Sample ID: 880-39246-5**
**Matrix: Solid**
**Date Collected: 02/07/24 09:48**
**Date Received: 02/12/24 12:30**

| 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 | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 01:45 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 01:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 12:38 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 12:38 | SM | EET MID |

## Client Sample ID: SW-5,0-4.1

**Lab Sample ID: 880-39246-6**
**Matrix: Solid**
**Date Collected: 02/07/24 11:29**
**Date Received: 02/12/24 12:30**

| 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 | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 02:06 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 02:06 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 13:00 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.09 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 13:00 | SM | EET MID |

## Client Sample ID: C-4,0-4.1

**Lab Sample ID: 880-39246-7**
**Matrix: Solid**
**Date Collected: 02/08/24 09:49**
**Date Received: 02/12/24 12:30**

| 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 | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 02:27 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 02:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 13:22 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.97 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 13:22 | SM | EET MID |

## Client Sample ID: C-63,0-4.1

**Lab Sample ID: 880-39246-8**
**Matrix: Solid**
**Date Collected: 02/08/24 10:08**
**Date Received: 02/12/24 12:30**

| 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 | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 02:47 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 02:47 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 13:44 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.98 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 13:44 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-2,0-4.1

**Lab Sample ID: 880-39246-9**
**Date Collected: 02/08/24 10:36**
**Matrix: Solid**
**Date Received: 02/12/24 12:30**

| 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 | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 03:08 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 03:08 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 14:06 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.90 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 14:06 | SM | EET MID |

## Client Sample ID: SW-8.0-4.1

**Lab Sample ID: 880-39246-10**
**Date Collected: 02/08/24 11:32**
**Matrix: Solid**
**Date Received: 02/12/24 12:30**

| 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 | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 03:28 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 03:28 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 14:29 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 14:29 | SM | EET MID |

## Client Sample ID: C-59,0-4.1

**Lab Sample ID: 880-39246-11**
**Date Collected: 02/08/24 13:33**
**Matrix: Solid**
**Date Received: 02/12/24 12:30**

| 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 | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 04:52 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 04:52 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 15:13 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 15:13 | SM | EET MID |

## Client Sample ID: C-19,0-4.1

**Lab Sample ID: 880-39246-12**
**Date Collected: 02/08/24 14:16**
**Matrix: Solid**
**Date Received: 02/12/24 12:30**

| 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 | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 05:13 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 05:13 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 15:35 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: SW-7,0-4.1

**Date Collected: 02/08/24 14:17**
**Date Received: 02/12/24 12:30**

**Lab Sample ID: 880-39246-13**
**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 | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 05:33 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 05:33 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 15:58 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.05 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 15:58 | SM | EET MID |

## Client Sample ID: SW-6,0-4.1

**Date Collected: 02/09/24 08:32**
**Date Received: 02/12/24 12:30**

**Lab Sample ID: 880-39246-14**
**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 | | | 5.00 g | 5 mL | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 05:54 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 05:54 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 16:20 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.09 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 16:20 | SM | EET MID |

## Client Sample ID: C-116,4.1

**Date Collected: 02/09/24 08:00**
**Date Received: 02/12/24 12:30**

**Lab Sample ID: 880-39246-15**
**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 | | | 5.00 g | 5 mL | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 06:15 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 06:15 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 16:43 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.08 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 16:43 | SM | EET MID |

## Client Sample ID: C-117,4.1

**Date Collected: 02/09/24 09:02**
**Date Received: 02/12/24 12:30**

**Lab Sample ID: 880-39246-16**
**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 | | | 4.95 g | 5 mL | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 06:35 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 06:35 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 17:05 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 17:05 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-118,4.1
**Date Collected: 02/09/24 09:09**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-17
**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 | | | 4.98 g | 5 mL | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 06:56 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 06:56 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 17:27 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.94 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 17:27 | SM | EET MID |

## Client Sample ID: C-119,4.1
**Date Collected: 02/09/24 09:06**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-18
**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 | | | 4.96 g | 5 mL | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 07:17 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 07:17 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 17:50 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.90 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 17:50 | SM | EET MID |

## Client Sample ID: C-120,4.1
**Date Collected: 02/09/24 09:08**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-19
**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 | | | 5.03 g | 5 mL | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 07:37 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 07:37 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 18:12 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.99 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 18:12 | SM | EET MID |

## Client Sample ID: C-212,4.1
**Date Collected: 02/09/24 09:10**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-20
**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 | | | 5.05 g | 5 mL | 73271 | 02/15/24 14:52 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73431 | 02/20/24 07:58 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/20/24 07:58 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 18:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.93 g | 10 mL | 73050 | 02/13/24 12:58 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 18:34 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-122,4.1

**Date Collected: 02/09/24 09:12**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-21

**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 | | | 5.03 g | 5 mL | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 12:16 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 12:16 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 20:25 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 20:25 | SM | EET MID |

## Client Sample ID: C-123,4.1

**Date Collected: 02/09/24 09:14**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-22

**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 | | | 5.05 g | 5 mL | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 12:42 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 12:42 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 21:31 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.90 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 21:31 | SM | EET MID |

## Client Sample ID: C-124,4.1

**Date Collected: 02/09/24 09:16**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-23

**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 | | | 4.95 g | 5 mL | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 13:08 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 13:08 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 21:53 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 21:53 | SM | EET MID |

## Client Sample ID: C-125,4.1

**Date Collected: 02/09/24 09:18**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-24

**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 | | | 4.97 g | 5 mL | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 13:35 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 13:35 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 22:15 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 22:15 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-126,4.1

**Date Collected: 02/09/24 09:20**
**Date Received: 02/12/24 12:30**

**Lab Sample ID: 880-39246-25**
**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 | | | 4.96 g | 5 mL | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 14:01 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 14:01 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 22:37 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.98 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 22:37 | SM | EET MID |

## Client Sample ID: C-127,4.1

**Date Collected: 02/09/24 09:22**
**Date Received: 02/12/24 12:30**

**Lab Sample ID: 880-39246-26**
**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 | | | 5.04 g | 5 mL | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 14:28 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 14:28 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 22:59 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.95 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 22:59 | SM | EET MID |

## Client Sample ID: C-128,4.1

**Date Collected: 02/09/24 09:24**
**Date Received: 02/12/24 12:30**

**Lab Sample ID: 880-39246-27**
**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 14:54 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 14:54 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 23:21 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.94 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 23:21 | SM | EET MID |

## Client Sample ID: C-129,4.1

**Date Collected: 02/09/24 09:26**
**Date Received: 02/12/24 12:30**

**Lab Sample ID: 880-39246-28**
**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 15:21 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 15:21 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 23:43 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.93 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/17/24 23:43 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-130,4.1
**Date Collected: 02/09/24 09:28**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-29
**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 15:47 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 15:47 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 00:04 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.09 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 00:04 | SM | EET MID |

## Client Sample ID: C-131,4.1
**Date Collected: 02/09/24 09:30**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-30
**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 16:14 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 16:14 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 00:26 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 00:26 | SM | EET MID |

## Client Sample ID: C-132,4.1
**Date Collected: 02/09/24 09:32**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-31
**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 18:01 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 18:01 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 01:10 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 01:10 | SM | EET MID |

## Client Sample ID: C-133,4.1
**Date Collected: 02/09/24 09:34**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-32
**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 18:27 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 18:27 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 01:31 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 01:31 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-134,4.1

**Date Collected: 02/09/24 09:36**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-33

**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 18:54 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 18:54 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 01:53 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.94 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 01:53 | SM | EET MID |

## Client Sample ID: C-135,4.1

**Date Collected: 02/09/24 09:38**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-34

**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 19:20 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 19:20 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 02:15 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.97 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 02:15 | SM | EET MID |

## Client Sample ID: C-136,4.1

**Date Collected: 02/09/24 09:40**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-35

**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 19:47 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 19:47 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 02:37 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.98 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 02:37 | SM | EET MID |

## Client Sample ID: C-137,4.1

**Date Collected: 02/09/24 09:42**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-36

**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 20:13 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 20:13 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 02:59 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.92 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 02:59 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-138,4.1
**Date Collected: 02/09/24 09:49**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-37
**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 20:39 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 20:39 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 03:21 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.90 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 03:21 | SM | EET MID |

## Client Sample ID: C-139,4.1
**Date Collected: 02/09/24 09:46**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-38
**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 21:06 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 21:06 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 03:43 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 03:43 | SM | EET MID |

## Client Sample ID: C-140,4.1
**Date Collected: 02/09/24 09:48**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-39
**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 21:32 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 21:32 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 04:05 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.05 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 04:05 | SM | EET MID |

## Client Sample ID: C-141,4.1
**Date Collected: 02/09/24 09:50**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-40
**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 | 73272 | 02/15/24 14:55 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73428 | 02/19/24 21:59 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/19/24 21:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/18/24 04:27 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 73051 | 02/13/24 13:00 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73400 | 02/18/24 04:27 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-142,4.1

**Date Collected: 02/09/24 09:52**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-41

**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 12:38 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 12:38 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 10:24 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.09 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 10:24 | SM | EET MID |

## Client Sample ID: C-143,4.1

**Date Collected: 02/09/24 09:54**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-42

**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 15:24 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 15:24 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 11:31 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.90 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 11:31 | SM | EET MID |

## Client Sample ID: C-144.4.1

**Date Collected: 02/09/24 09:56**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-43

**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 15:45 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 15:45 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 11:53 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.06 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 11:53 | SM | EET MID |

## Client Sample ID: C-145,4.1

**Date Collected: 02/09/24 09:58**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-44

**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 17:37 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 17:37 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 12:15 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 12:15 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-146,4.1

**Date Collected: 02/09/24 10:00**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-45

**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 17:57 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 17:57 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 12:38 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 12:38 | SM | EET MID |

## Client Sample ID: C-148,4.1

**Date Collected: 02/09/24 10:04**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-46

**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 18:18 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 18:18 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 13:00 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.05 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 13:00 | SM | EET MID |

## Client Sample ID: C-149,4.1

**Date Collected: 02/09/24 10:06**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-47

**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 18:39 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 18:39 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 13:22 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.97 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 13:22 | SM | EET MID |

## Client Sample ID: C-150,4.1

**Date Collected: 02/09/24 10:08**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-48

**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 18:59 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 18:59 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 13:44 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.98 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 13:44 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-151,4.1
**Date Collected: 02/09/24 10:10**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-49
**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 19:20 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 19:20 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 14:06 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.90 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 14:06 | SM | EET MID |

## Client Sample ID: C-152,4.1
**Date Collected: 02/09/24 10:12**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-50
**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 19:41 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 19:41 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 14:29 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 14:29 | SM | EET MID |

## Client Sample ID: C-153,4.1
**Date Collected: 02/09/24 10:14**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-51
**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 20:01 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 20:01 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 15:13 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 15:13 | SM | EET MID |

## Client Sample ID: C-154,4.1
**Date Collected: 02/09/24 10:16**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-52
**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 20:22 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 20:22 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.09 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 15:35 | SM | EET MID |

# Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

## Client Sample ID: C-147,4.1

**Date Collected: 02/09/24 10:02**
**Date Received: 02/12/24 12:30**

## Lab Sample ID: 880-39246-53

**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 | 73275 | 02/15/24 15:00 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 73718 | 02/21/24 20:43 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 73591 | 02/21/24 20:43 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 73535 | 02/17/24 15:58 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 9.97 g | 10 mL | 73083 | 02/13/24 16:08 | TKC | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 73402 | 02/17/24 15:58 | SM | 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: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

## 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: 880-39246-1
Project/Site: Culebra Bluff SE 5 32 Fed Com 3 SDG: 19-0180-07

| 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 |
| 5035 | Closed System Purge and Trap | SW846 | EET MID |
| 8015NM Prep | Microextraction | SW846 | EET MID |

**Protocol References:**

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: Culebra Bluff SE 5 32 Fed Com 3

Job ID: 880-39246-1
SDG: 19-0180-07

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 880-39246-1 | C-5,O-4.1 | Solid | 02/06/24 11:08 | 02/12/24 12:30 |
| 880-39246-2 | SW-2.0-4.1 | Solid | 02/06/24 11:29 | 02/12/24 12:30 |
| 880-39246-3 | SW-3,0-4.1 | Solid | 02/06/24 14:59 | 02/12/24 12:30 |
| 880-39246-4 | C-12,0-4.1 | Solid | 02/07/24 09:47 | 02/12/24 12:30 |
| 880-39246-5 | SW-4,0-4.1 | Solid | 02/07/24 09:48 | 02/12/24 12:30 |
| 880-39246-6 | SW-5,0-4.1 | Solid | 02/07/24 11:29 | 02/12/24 12:30 |
| 880-39246-7 | C-4,0-4.1 | Solid | 02/08/24 09:49 | 02/12/24 12:30 |
| 880-39246-8 | C-63,0-4.1 | Solid | 02/08/24 10:08 | 02/12/24 12:30 |
| 880-39246-9 | C-2,0-4.1 | Solid | 02/08/24 10:36 | 02/12/24 12:30 |
| 880-39246-10 | SW-8.0-4.1 | Solid | 02/08/24 11:32 | 02/12/24 12:30 |
| 880-39246-11 | C-59,0-4.1 | Solid | 02/08/24 13:33 | 02/12/24 12:30 |
| 880-39246-12 | C-19,0-4.1 | Solid | 02/08/24 14:16 | 02/12/24 12:30 |
| 880-39246-13 | SW-7,0-4.1 | Solid | 02/08/24 14:17 | 02/12/24 12:30 |
| 880-39246-14 | SW-6,0-4.1 | Solid | 02/09/24 08:32 | 02/12/24 12:30 |
| 880-39246-15 | C-116,4.1 | Solid | 02/09/24 08:00 | 02/12/24 12:30 |
| 880-39246-16 | C-117,4.1 | Solid | 02/09/24 09:02 | 02/12/24 12:30 |
| 880-39246-17 | C-118,4.1 | Solid | 02/09/24 09:09 | 02/12/24 12:30 |
| 880-39246-18 | C-119,4.1 | Solid | 02/09/24 09:06 | 02/12/24 12:30 |
| 880-39246-19 | C-120,4.1 | Solid | 02/09/24 09:08 | 02/12/24 12:30 |
| 880-39246-20 | C-212,4.1 | Solid | 02/09/24 09:10 | 02/12/24 12:30 |
| 880-39246-21 | C-122,4.1 | Solid | 02/09/24 09:12 | 02/12/24 12:30 |
| 880-39246-22 | C-123,4.1 | Solid | 02/09/24 09:14 | 02/12/24 12:30 |
| 880-39246-23 | C-124,4.1 | Solid | 02/09/24 09:16 | 02/12/24 12:30 |
| 880-39246-24 | C-125,4.1 | Solid | 02/09/24 09:18 | 02/12/24 12:30 |
| 880-39246-25 | C-126,4.1 | Solid | 02/09/24 09:20 | 02/12/24 12:30 |
| 880-39246-26 | C-127,4.1 | Solid | 02/09/24 09:22 | 02/12/24 12:30 |
| 880-39246-27 | C-128,4.1 | Solid | 02/09/24 09:24 | 02/12/24 12:30 |
| 880-39246-28 | C-129,4.1 | Solid | 02/09/24 09:26 | 02/12/24 12:30 |
| 880-39246-29 | C-130,4.1 | Solid | 02/09/24 09:28 | 02/12/24 12:30 |
| 880-39246-30 | C-131,4.1 | Solid | 02/09/24 09:30 | 02/12/24 12:30 |
| 880-39246-31 | C-132,4.1 | Solid | 02/09/24 09:32 | 02/12/24 12:30 |
| 880-39246-32 | C-133,4.1 | Solid | 02/09/24 09:34 | 02/12/24 12:30 |
| 880-39246-33 | C-134,4.1 | Solid | 02/09/24 09:36 | 02/12/24 12:30 |
| 880-39246-34 | C-135,4.1 | Solid | 02/09/24 09:38 | 02/12/24 12:30 |
| 880-39246-35 | C-136,4.1 | Solid | 02/09/24 09:40 | 02/12/24 12:30 |
| 880-39246-36 | C-137,4.1 | Solid | 02/09/24 09:42 | 02/12/24 12:30 |
| 880-39246-37 | C-138,4.1 | Solid | 02/09/24 09:49 | 02/12/24 12:30 |
| 880-39246-38 | C-139,4.1 | Solid | 02/09/24 09:46 | 02/12/24 12:30 |
| 880-39246-39 | C-140,4.1 | Solid | 02/09/24 09:48 | 02/12/24 12:30 |
| 880-39246-40 | C-141,4.1 | Solid | 02/09/24 09:50 | 02/12/24 12:30 |
| 880-39246-41 | C-142,4.1 | Solid | 02/09/24 09:52 | 02/12/24 12:30 |
| 880-39246-42 | C-143,4.1 | Solid | 02/09/24 09:54 | 02/12/24 12:30 |
| 880-39246-43 | C-144.4.1 | Solid | 02/09/24 09:56 | 02/12/24 12:30 |
| 880-39246-44 | C-145,4.1 | Solid | 02/09/24 09:58 | 02/12/24 12:30 |
| 880-39246-45 | C-146,4.1 | Solid | 02/09/24 10:00 | 02/12/24 12:30 |
| 880-39246-46 | C-148,4.1 | Solid | 02/09/24 10:04 | 02/12/24 12:30 |
| 880-39246-47 | C-149,4.1 | Solid | 02/09/24 10:06 | 02/12/24 12:30 |
| 880-39246-48 | C-150,4.1 | Solid | 02/09/24 10:08 | 02/12/24 12:30 |
| 880-39246-49 | C-151,4.1 | Solid | 02/09/24 10:10 | 02/12/24 12:30 |
| 880-39246-50 | C-152,4.1 | Solid | 02/09/24 10:12 | 02/12/24 12:30 |
| 880-39246-51 | C-153,4.1 | Solid | 02/09/24 10:14 | 02/12/24 12:30 |
| 880-39246-52 | C-154,4.1 | Solid | 02/09/24 10:16 | 02/12/24 12:30 |
| 880-39246-53 | C-147,4.1 | Solid | 02/09/24 10:02 | 02/12/24 12:30 |

39246

No. 2890

# CHAIN-OF-CUSTODY

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

Data Reported to

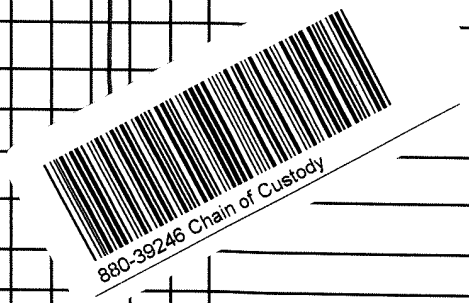
DATE 2/12/2024 PAGE 1 OF 4
PO# LAB WORK ORDER#
PROJECT LOCATION OR NAME Culebra Bluff
LAI PROJECT # 19-0180-07 COLLECTOR. AV

TRRP report? ☐ Yes ☒ No

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

TIME ZONE
Time zone/State
MST/MDT

| Field Sample I D | Lab # | Date | Time | Matrix | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESSERVED | ANALYSES: 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-5, 0-4.1 | | 2-6-24 | 1108 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | X | | |
| SW-2, 0-4.1 | | 1 | 1129 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SW-3, 0-4.1 | | 1 | 1459 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-12, 0-4.1 | | 2-7-24 | 0947 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SW-4, 0-4.1 | | 1 | 0948 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SW-5, 0-4.1 | | 1 | 1129 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-4, 0-4.1 | | 2-8-24 | 0949 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-63, 0-4.1 | | | 1008 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-2, 0-4.1 | | | 1036 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SW-8, 0-4.1 | | | 1132 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-59, 0-4.1 | | | 1333 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-19, 0-4.1 | | | 1416 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SW-7, 0-4.1 | | | 1417 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SW-6, 0-4.1 | | 2-9-24 | 0832 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-116, 4.1 | | 1 | 0800 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |




| | | |
|---|---|---|
| RELINQUISHED BY (Signature) | DATE/TIME 2-12-24 1230 | RECEIVED BY (Signature) James Wm |
| 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 THERM# 2.5
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Page 907 of 1002
Received by OCD: 5/8/2024 11:20:33 AM
Page 84 of 88
Released to Imaging: 6/25/2024 3:21:21 PM
2/29/2024 (Rev. 2)

Page 908 of 1002

39246

No. 2891

# CHAIN-OF-CUSTODY

2/29/2024 (Rev. 2)

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

Data Reported to

DATE. 2-12-2024 PAGE 2 OF 4

PO# _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME Culebra Bluff

LAI PROJECT #: 19-0180-07 COLLECTOR RV

TRRP report? ☐ Yes ☑ No

TIME ZONE Time zone/State: MST MDT

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 ☐ | CHLORIDE ☑ ANIONS ☐ ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-117, 4.1 | | 2-9-24 | 0902 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | | | | X | | |
| C-118, 4.1 | | | 0904 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-119, 4.1 | | | 0906 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-120, 4.1 | | | 0908 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-121, 4.1 | | | 0910 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-122, 4.1 | | | 0912 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-123, 4.1 | | | 0914 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-124, 4.1 | | | 0916 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-125, 4.1 | | | 0918 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-126, 4.1 | | | 0920 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-127, 4.1 | | | 0922 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-128, 4.1 | | | 0924 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-129, 4.1 | | | 0926 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-130, 4.1 | | | 0928 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-131, 4.1 | | | 0930 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) |
|---|---|---|
| ~~RELINQUISHED BY~~ (Signature) | 2-12-24 1230 | Tamara Wilson |
| 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 THERM# 2.5
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
~~☐~~ HAND DELIVERED

Page 85 of 88

Received by OCD: 5/8/2024 11:20:33 AM

Released to Imaging: 6/25/2024 3:21:21 PM

Page 909 of 1002

392946

No. 2892

# CHAIN-OF-CUSTODY

2/29/2024 (Rev. 2)

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

Data Reported to

DATE 2-12-2024 PAGE 3 OF 4

PO# LAB WORK ORDER#

PROJECT LOCATION OR NAME Culebra Bluff

LAI PROJECT # 19-080-07 COLLECTOR. [illegible]

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 ☐ | TDS ☐ | TSS ☐ | FLASHPOINT ☐ | pH ☐ | % MOISTURE ☐ | HEXAVALENT CHROMIUM ☐ | CYANIDE ☐ | EXPLOSIVES ☐ | PECHLORATE ☐ | CHLORIDES ☒ | ANIONS ☐ | ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-132, 4.1 | | 2-9-24 | 0932 | S | 1 | | | | X | | X | | X | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | X | | | | |
| C-133, 4.1 | | " | 0934 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-134, 4.1 | | " | 0936 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-135, 4.1 | | " | 0938 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-136, 4.1 | | " | 0940 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-137, 4.1 | | " | 0942 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-138, 4.1 | | " | 0944 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-139, 4.1 | | " | 0946 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-140, 4.1 | | " | 0948 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-141, 4.1 | | " | 0950 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-142, 4.1 | | " | 0952 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-143, 4.1 | | " | 0954 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-144, 4.1 | | " | 0956 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-145, 4.1 | | " | 0958 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| C-146, 4.1 | | " | 1000 | " | " | | | | " | | " | | " | | " | " | " | | | | | | | | | | | | | | | | | | | | | | | | " | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| RELINQUISHED BY (Signature) | DATE/TIME | RECEIVED BY (Signature) |
|---|---|---|
| [signature] | 2-12-24 1230 | [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 THERM# 25
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

Page 86 of 88

Received by OCD: 5/8/2024 11:20:33 AM

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39246

No. 2893

# CHAIN-OF-CUSTODY

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

DATE 2-12-2024 PAGE 4 OF 4
PO# LAB WORK ORDER#
PROJECT LOCATION OR NAME Culebra Bluff
LAI PROJECT #. 19-010-07 COLLECTOR. RN
Data Reported to

TRRP report? ☐ Yes ☒ No
TIME ZONE Time zone/State: MST / NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR 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-146, 4.1 | | 2-9-24 | 1004 | S | 1 | | | | X | | X | | X | X | X | | | | | | | | | | | | X | | |
| C-149, 4.1 | | | 1006 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-150, 4.1 | | | 1008 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-151, 4.1 | | | 1010 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-152, 4.1 | | | 1012 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-153, 4.1 | | | 1014 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-154, 4.1 | | | 1016 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-147, 4.1 | | 2-9-24 | 1002 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Loc: 880
39246

RELINQUISHED BY (Signature) DATE/TIME 2-12-24/230 RECEIVED BY (Signature) Jazmin Whm
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 THERM# 25
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

(Rev. 2) 2/29/2024

Page 910 of 1002
Received by OCD: 5/8/2024 11:20:33 AM
Page 87 of 88
Released to Imaging: 6/25/2024 3:21:21 PM

# Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-39246-1
SDG Number: 19-0180-07

**Login Number: 39246**
**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 | |

DHL ANALYTICAL

February 29, 2024

Mark Larson
Larson & Associates
507 N. Marienfeld #202
Midland, TX 79701
TEL: (432) 687-0901
FAX:

Order No.: 2402322

RE: Culebra Bluff SE 532 Fed Coms

Dear Mark Larson:

DHL Analytical, Inc. received 53 sample(s) on 2/26/2024 for the analyses presented in the following report.

Revision Number 1 for Work Order 2402322: This revision consists of updating the test method for the analysis, per the client's request. Please replace the original Data Report with this revision.

There were no problems with the analyses and all data met requirements of NELAP except where noted in the Case Narrative. All non-NELAP methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-23-29

# Table of Contents

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**AnalyticalQCSummaryReport 2402322** ..... 65

Released to Imaging: 6/25/2024 3:21:21 PM
Received by OCD: 5/8/2024 11:20:33 AM

No. 3279

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 2-23-2024 PAGE 1 OF 4
PO#: LAB WORK ORDER#: 2402322
PROJECT LOCATION OR NAME: Culebra Bluff SE S 32 Fed Com
LAI PROJECT #: 19-0180-07 COLLECTOR: RW

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 ☐ | 8082 PCBS ☐ | 8151 HERBICIDES ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDES ☑ 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-5, 0-4.1 | 01 | 2-6-24 | 1108 | S | 1 | | | | | X | X | |
| SW-2, 0-4.1 | 02 | " | 1129 | " | " | | | | | " | " | |
| SW-3, 0-4.1 | 03 | " | 1459 | " | " | | | | | " | " | |
| C-12, 0-4.1 | 04 | 2-7-24 | 0947 | " | " | | | | | " | " | |
| SW-4, 0-4.1 | 05 | " | 0948 | " | " | | | | | " | " | |
| SW-5, 0-4.1 | 06 | " | 1129 | " | " | | | | | " | " | |
| C-4, 0-4.1 | 07 | 2-8-24 | 0949 | " | " | | | | | " | " | |
| C-63, 0-4.1 | 08 | " | 1008 | " | " | | | | | " | " | |
| C-2, 0-4.1 | 09 | " | 1036 | " | " | | | | | " | " | |
| SW-8, 0-4.1 | 10 | " | 1132 | " | " | | | | | " | " | |
| C-59, 0-4.1 | 11 | " | 1333 | " | " | | | | | " | " | |
| C-14, 0-4.1 | 12 | " | 1416 | " | " | | | | | " | " | |
| SW-7, 0-4.1 | 13 | " | 1417 | " | " | | | | | " | " | |
| SW-6, 0-4.1 | 14 | 2-9-24 | 0832 | " | " | | | | | " | " | |
| C-116, 4.1 | 15 | " | 0800 | " | " | | | | | " | " | |
| TOTAL | | | | | | | | | | | | |

| RELINQUISHED BY:(Signature) | DATE/TIME | RECEIVED BY: (Signature) |
|---|---|---|
| | 2-23-24 1522 | UPS |
| UPS | 2/26/24 0645 | Kanica O'Riley |
| | | |

LABORATORY: DHL

**TURN AROUND TIME**
NORMAL ☐
1 DAY ☑ Rush.
2 DAY ☐
OTHER ☐

**LABORATORY USE ONLY:**
RECEIVING TEMP: 19.8°C THERM#: 78
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Released to Imaging: 6/25/2024 3:21:21 PM
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No. 3280

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 2-23-2024 PAGE 2 OF 4
PO#: LAB WORK ORDER#: 2402322
PROJECT LOCATION OR NAME: Cubbria Blatt SE 5 32 Fed Com 3
LAI PROJECT #: 19-080-07 COLLECTOR: RN

TRRP report? ☐ Yes ☑ No

TIME ZONE: Time zone/State: CST/TX

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 | ANALYSES | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-117, 4.1 | 16 | 2-9-24 | 0904 | S | 1 | | | | | X | X | |
| C-118, 4.1 | 17 | " | 0906 | " | " | | | | | " | " | |
| C-119, 4.1 | 18 | " | 0906 | " | " | | | | | " | " | |
| C-120, 4.1 | 19 | " | 0908 | " | " | | | | | " | " | |
| C-121, 4.1 | 20 | " | 0910 | " | " | | | | | " | " | |
| C-122, 4.1 | 21 | " | 0912 | " | " | | | | | " | " | |
| C-123, 4.1 | 22 | " | 0914 | " | " | | | | | " | " | |
| C-124, 4.1 | 23 | " | 0916 | " | " | | | | | " | " | |
| C-125, 4.1 | 24 | " | 0918 | " | " | | | | | " | " | |
| C-126, 4.1 | 25 | " | 0920 | " | " | | | | | " | " | |
| C-127, 4.1 | 26 | " | 0922 | " | " | | | | | " | " | |
| C-128, 4.1 | 27 | " | 0924 | " | " | | | | | " | " | |
| C-129, 4.1 | 28 | " | 0926 | " | " | | | | | " | " | |
| C-130, 4.1 | 29 | " | 0928 | " | " | | | | | " | " | |
| C-131, 4.1 | 30 | " | 0930 | " | " | | | | | " | " | |
| TOTAL | | | | | | | | | | | | |

RELINQUISHED BY:(Signature) DATE/TIME 2-23-24 1527 RECEIVED BY: (Signature) UPS

RELINQUISHED BY:(Signature) UPS DATE/TIME 2/26/24 0645 RECEIVED BY: (Signature) Hannah O'Neil

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

LABORATORY: DHL

**TURN AROUND TIME**
NORMAL ☐
1 DAY ☑ Rush!
2 DAY ☐
OTHER ☐

**LABORATORY USE ONLY:**
RECEIVING TEMP: 19.8°C THERM#: 78
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Released to Imaging: 6/25/2024 3:21:21 PM
Received by OCD: 5/8/2024 11:20:33 AM

No. 3281

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 2-23-2024 PAGE 3 OF 4
PO#: LAB WORK ORDER#: 24 02322
PROJECT LOCATION OR NAME: Culebra Bluff SE S 32 Fed Com 3
LAI PROJECT #: 19-0180-07 COLLECTOR: RN

TRRP report? ☐ Yes ☑ No

TIME ZONE: Time zone/State: CST/TX

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 | ANALYSES | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-132, 4.1 | 31 | 2-9-24 | 0932 | S | 1 | | | | | X | X | |
| C-133, 4.1 | 32 | " | 0934 | " | " | | | | | " | " | |
| C-134, 4.1 | 33 | " | 0936 | " | " | | | | | " | " | |
| C-135, 4.1 | 34 | " | 0938 | " | " | | | | | " | " | |
| C-136, 4.1 | 35 | " | 0940 | " | " | | | | | " | " | |
| C-137, 4.1 | 36 | " | 0942 | " | " | | | | | " | " | |
| C-138, 4.1 | 37 | " | 0944 | " | " | | | | | " | " | |
| C-139, 4.1 | 38 | " | 0946 | " | " | | | | | " | " | |
| C-140, 4.1 | 39 | " | 0948 | " | " | | | | | " | " | |
| C-141, 4.1 | 40 | " | 0950 | " | " | | | | | " | " | |
| C-142, 4.1 | 41 | " | 0952 | " | " | | | | | " | " | |
| C-143, 4.1 | 42 | " | 0954 | " | " | | | | | " | " | |
| C-144, 4.1 | 43 | " | 0956 | " | " | | | | | " | " | |
| C-145, 4.1 | 44 | " | 0958 | " | " | | | | | " | " | |
| C-146, 4.1 | 45 | " | 1000 | " | " | | | | | " | " | |
| TOTAL | | | | | | | | | | | | |

| RELINQUISHED BY:(Signature) | DATE/TIME | RECEIVED BY: (Signature) |
|---|---|---|
| | 2-23-24 1527 | UPS |
| UPS | 2/26/24 0045 | Raul.DHL |
| | | |

LABORATORY: DHL

**TURN AROUND TIME**
NORMAL ☐
1 DAY ☑ Rush!
2 DAY ☐
OTHER ☐

**LABORATORY USE ONLY:**
RECEIVING TEMP: 19.8°C THERM#: 78
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Released to Imaging: 6/25/2024 3:21:21 PM

No. 3282

# CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 2-23-2024 PAGE 4 OF 4
PO#: LAB WORK ORDER#: 2402322
PROJECT LOCATION OR NAME: Culebra Bluff
LAI PROJECT #: 19-0180-07 COLLECTOR: DN

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: CST/TX

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR 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 ☐ | CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-147, 4.1 | 46 | 2-9-24 | 1004 | S | 1 | | | | | X | | | | | | | | | | | | | | | | | X | | |
| C-148, 4.1 | 47 | " | 1004 | " | 1 | | | | | " | | | | | | | | | | | | | | | | | " | | |
| C-149, 4.1 | 48 | " | 1006 | " | 1 | | | | | " | | | | | | | | | | | | | | | | | " | | |
| C-150, 4.1 | 49 | " | 1008 | " | 1 | | | | | " | | | | | | | | | | | | | | | | | " | | |
| C-151, 4.1 | 50 | " | 1010 | " | 1 | | | | | " | | | | | | | | | | | | | | | | | " | | |
| C-152, 4.1 | 51 | " | 1012 | " | 1 | | | | | " | | | | | | | | | | | | | | | | | " | | |
| C-153, 4.1 | 52 | " | 1014 | " | 1 | | | | | " | | | | | | | | | | | | | | | | | " | | |
| C-154, 4.1 | 53 | " | 1016 | " | 1 | | | | | " | | | | | | | | | | | | | | | | | " | | |
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| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY:(Signature) DATE/TIME 2-23-24 1527 RECEIVED BY: (Signature) UPS

RELINQUISHED BY:(Signature) UPS DATE/TIME 2/24/24 0645 RECEIVED BY: (Signature)

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

LABORATORY DHL

6

**TURN AROUND TIME**
NORMAL ☐
1 DAY ☑ Rush!
2 DAY ☐
OTHER ☐

**LABORATORY USE ONLY:**
RECEIVING TEMP: 19.8°C THERM#: 78
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/8/2024 11:20:33 AM

ROBERT NELSON
432-687-0901
LARSON & ASSOCIATES
507 N. MARIENFELD ST.
MIDLAND TX 79701

40 LBS 1 OF 1
DWT: 16,14,14

SHIP TO:
JOHN DUPONT
512-388-8222
DHL ANALYTICAL
2300 DOUBLE CREEK DRIVE.
ROUND ROCK TX 78664

TX 786 4-76

UPS NEXT DAY AIR EARLY 1+
TRACKING #: 1Z Y64 915 15 9466 9657

BILLING: P/P

XOL 24.01.23 NV45 8.0A 02/2024*

CUSTODY SEAL

DATE 2-23-2024

SIGNATURE Robert Nelson

DHL ANALYTICAL

DHL Analytical, Inc.

## Sample Receipt Checklist

Client Name: **Larson & Associates** Date Received: **2/26/2024**

Work Order Number: **2402322** Received by: **KAO**

Checklist completed by: _____ 2/26/2024 Reviewed by: SH 2/26/2024

Signature | Date | Initials | Date

Carrier name: UPS Std

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on shipping container/cooler? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☐ | No ☑ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Water - VOA vials have zero headspace? | Yes ☐ | No ☐ | No VOA vials submitted ☑ NA ☐ |
| Water - pH<2 acceptable upon receipt? | Yes ☐ | No ☐ | NA ☑ LOT # |
| | Adjusted? | | Checked by |
| Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt? | Yes ☐ | No ☐ | NA ☑ LOT # |
| | Adjusted? | | Checked by |
| Container/Temp Blank temperature in compliance? | Yes ☑ | No ☐ | |

Cooler # 1

Temp °C 19.8

Seal Intact Y

Any No response must be detailed in the comments section below.

Client contacted: Larson Date contacted: 2/26/24 Person contacted: Robert N.

Contacted by: Eric L. Regarding: Sample ID

Comments: Sample "C-121, 4.1" on COC labeled as "C-212, 4.1" on container.

Corrective Action: Per Robert, sample ID "C-121, 4.1" is correct. Proceed with analysis.

**DHL Analytical, Inc.** **Date:** *29-Feb-24*

**CLIENT:** Larson & Associates
**Project:** Culebra Bluff SE 532 Fed Coms
**Lab Order:** 2402322

# CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

EPA 300.0 and ASTM Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Anions Analysis, for soil Batch 114178, the recovery and RPD of Chloride for the Matrix Spike and Matrix Spike Duplicate (2402322-02 MS/MSD) were outside of the method control limits. Additionally, the RPD of Chloride for the Sample Duplicate (2402322-11 Dup) was above the method control limit. These are flagged accordingly in the QC Summary Report. This anion was within method control limits in the associated LCS. No further corrective action was taken.

For Anions Analysis, for soil Batches 114181 and 114182, the recovery of Chloride for the Matrix Spike and Matrix Spike Duplicate(s) (2402322-22, -44 MS/MSD) was above the method control limits. These are flagged accordingly in the QC Summary Report. This anion was within method control limits in the associated LCS(s). No further corrective action was taken.

## DHL Analytical, Inc.

**Date:** *28-Feb-24*

**CLIENT:** Larson & Associates
**Project:** Culebra Bluff SE 532 Fed Coms
**Lab Order:** 2402322

# Work Order Sample Summary

| Lab Smp ID | Client Sample ID | Tag Number | Date Collected | Date Recved |
|---|---|---|---|---|
| 2402322-01 | C-5, 0-4.1 | | 02/06/24 11:08 AM | 02/26/2024 |
| 2402322-02 | SW-2, 0-4.1 | | 02/06/24 11:29 AM | 02/26/2024 |
| 2402322-03 | SW-3, 0-4.1 | | 02/06/24 02:59 PM | 02/26/2024 |
| 2402322-04 | C-12, 0-4.1 | | 02/07/24 09:47 AM | 02/26/2024 |
| 2402322-05 | SW-4, 0-4.1 | | 02/07/24 09:48 AM | 02/26/2024 |
| 2402322-06 | SW-5, 0-4.1 | | 02/07/24 11:29 AM | 02/26/2024 |
| 2402322-07 | C-4, 0-4.1 | | 02/08/24 09:49 AM | 02/26/2024 |
| 2402322-08 | C-63, 0-4.1 | | 02/08/24 10:08 AM | 02/26/2024 |
| 2402322-09 | C-2, 0-4.1 | | 02/08/24 10:36 AM | 02/26/2024 |
| 2402322-10 | SW-8, 0-4.1 | | 02/08/24 11:32 AM | 02/26/2024 |
| 2402322-11 | C-59, 0-4.1 | | 02/08/24 01:33 PM | 02/26/2024 |
| 2402322-12 | C-19, 0-4.1 | | 02/08/24 02:16 PM | 02/26/2024 |
| 2402322-13 | SW-7, 0-4.1 | | 02/08/24 02:17 PM | 02/26/2024 |
| 2402322-14 | SW-6, 0-4.1 | | 02/09/24 08:32 AM | 02/26/2024 |
| 2402322-15 | C-116, 4.1 | | 02/09/24 08:00 AM | 02/26/2024 |
| 2402322-16 | C-117, 4.1 | | 02/09/24 09:01 AM | 02/26/2024 |
| 2402322-17 | C-118, 4.1 | | 02/09/24 09:09 AM | 02/26/2024 |
| 2402322-18 | C-119, 4.1 | | 02/09/24 09:06 AM | 02/26/2024 |
| 2402322-19 | C-120, 4.1 | | 02/09/24 09:08 AM | 02/26/2024 |
| 2402322-20 | C-121, 4.1 | | 02/09/24 09:10 AM | 02/26/2024 |
| 2402322-21 | C-122, 4.1 | | 02/09/24 09:12 AM | 02/26/2024 |
| 2402322-22 | C-123, 4.1 | | 02/09/24 09:14 AM | 02/26/2024 |
| 2402322-23 | C-124, 4.1 | | 02/09/24 09:16 AM | 02/26/2024 |
| 2402322-24 | C-125, 4.1 | | 02/09/24 09:18 AM | 02/26/2024 |
| 2402322-25 | C-126, 4.1 | | 02/09/24 09:20 AM | 02/26/2024 |
| 2402322-26 | C-127, 4.1 | | 02/09/24 09:22 AM | 02/26/2024 |
| 2402322-27 | C-128, 4.1 | | 02/09/24 09:24 AM | 02/26/2024 |
| 2402322-28 | C-129, 4.1 | | 02/09/24 09:26 AM | 02/26/2024 |
| 2402322-29 | C-130, 4.1 | | 02/09/24 09:28 AM | 02/26/2024 |
| 2402322-30 | C-131, 4.1 | | 02/09/24 09:30 AM | 02/26/2024 |
| 2402322-31 | C-132, 4.1 | | 02/09/24 09:32 AM | 02/26/2024 |
| 2402322-32 | C-133, 4.1 | | 02/09/24 09:34 AM | 02/26/2024 |
| 2402322-33 | C-134, 4.1 | | 02/09/24 09:36 AM | 02/26/2024 |
| 2402322-34 | C-135, 4.1 | | 02/09/24 09:38 AM | 02/26/2024 |
| 2402322-35 | C-136, 4.1 | | 02/09/24 09:40 AM | 02/26/2024 |
| 2402322-36 | C-137, 4.1 | | 02/09/24 09:42 AM | 02/26/2024 |
| 2402322-37 | C-138, 4.1 | | 02/09/24 09:44 AM | 02/26/2024 |
| 2402322-38 | C-139, 4.1 | | 02/09/24 09:46 AM | 02/26/2024 |

**CLIENT:** Larson & Associates
**Project:** Culebra Bluff SE 532 Fed Coms
**Lab Order:** 2402322

# Work Order Sample Summary

| Lab Smp ID | Client Sample ID | Tag Number | Date Collected | Date Recved |
|---|---|---|---|---|
| 2402322-39 | C-140, 4.1 | | 02/09/24 09:48 AM | 02/26/2024 |
| 2402322-40 | C-141, 4.1 | | 02/09/24 09:50 AM | 02/26/2024 |
| 2402322-41 | C-142, 4.1 | | 02/09/24 09:52 AM | 02/26/2024 |
| 2402322-42 | C-143, 4.1 | | 02/09/24 09:54 AM | 02/26/2024 |
| 2402322-43 | C-144, 4.1 | | 02/09/24 09:56 AM | 02/26/2024 |
| 2402322-44 | C-145, 4.1 | | 02/09/24 09:59 AM | 02/26/2024 |
| 2402322-45 | C-146, 4.1 | | 02/09/24 10:00 AM | 02/26/2024 |
| 2402322-46 | C-147, 4.1 | | 02/09/24 10:02 AM | 02/26/2024 |
| 2402322-47 | C-148, 4.1 | | 02/09/24 10:04 AM | 02/26/2024 |
| 2402322-48 | C-149, 4.1 | | 02/09/24 10:06 AM | 02/26/2024 |
| 2402322-49 | C-150, 4.1 | | 02/09/24 10:08 AM | 02/26/2024 |
| 2402322-50 | C-151, 4.1 | | 02/09/24 10:10 AM | 02/26/2024 |
| 2402322-51 | C-152, 4.1 | | 02/09/24 10:12 AM | 02/26/2024 |
| 2402322-52 | C-153, 4.1 | | 02/09/24 10:14 AM | 02/26/2024 |
| 2402322-53 | C-154, 4.1 | | 02/09/24 10:16 AM | 02/26/2024 |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-5, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-01 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/06/24 11:08 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 276 | 244 | 610 | J | mg/Kg-dry | 100 | 02/26/24 06:31 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 18.2 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | SW-2, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-02 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/06/24 11:29 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 300 | 242 | 606 | J | mg/Kg-dry | 100 | 02/26/24 07:09 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 18.4 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | SW-3, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-03 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/06/24 02:59 PM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 296 | 211 | 527 | J | mg/Kg-dry | 100 | 02/26/24 08:06 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 6.57 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-12, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-04 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/07/24 09:47 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 578 | 222 | 555 | | mg/Kg-dry | 100 | 02/26/24 08:25 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 11.8 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | SW-4, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-05 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/07/24 09:48 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 533 | 218 | 544 | J | mg/Kg-dry | 100 | 02/26/24 08:44 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 12.0 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | SW-5, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-06 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/07/24 11:29 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 338 | 212 | 530 | J | mg/Kg-dry | 100 | 02/26/24 09:03 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 6.90 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-4, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-07 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/08/24 09:49 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 136 | 25.3 | 63.2 | | mg/Kg-dry | 10 | 02/28/24 01:14 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 21.8 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| **Qualifiers:** | | | | | |
|---|---|---|---|---|---|
| | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-63, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-08 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/08/24 10:08 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 541 | 217 | 543 | J | mg/Kg-dry | 100 | 02/26/24 10:57 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 8.84 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-2, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-09 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/08/24 10:36 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 145 | 24.5 | 61.1 | | mg/Kg-dry | 10 | 02/28/24 01:33 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 21.5 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | SW-8, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-10 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/08/24 11:32 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 279 | 237 | 592 | J | mg/Kg-dry | 100 | 02/26/24 11:35 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 16.9 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-59, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-11 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/08/24 01:33 PM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 234 | 24.4 | 61.0 | | mg/Kg-dry | 10 | 02/28/24 01:52 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 18.2 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-19, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-12 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/08/24 02:16 PM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 212 | 23.9 | 59.9 | | mg/Kg-dry | 10 | 02/28/24 02:30 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 18.3 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | SW-7, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-13 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/08/24 02:17 PM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 206 | 24.3 | 60.7 | | mg/Kg-dry | 10 | 02/28/24 02:49 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 18.1 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | SW-6, 0-4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-14 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 08:32 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 275 | 238 | 595 | J | mg/Kg-dry | 100 | 02/27/24 01:10 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 18.1 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-116, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-15 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 08:00 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 798 | 224 | 561 | | mg/Kg-dry | 100 | 02/27/24 01:29 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 11.7 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-117, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-16 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:01 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1020 | 211 | 528 | | mg/Kg-dry | 100 | 02/27/24 01:48 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 7.72 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-118, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-17 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:09 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1500 | 218 | 545 | | mg/Kg-dry | 100 | 02/27/24 02:07 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 10.0 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-119, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-18 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:06 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1830 | 213 | 533 | | mg/Kg-dry | 100 | 02/27/24 03:42 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 8.92 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-120, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-19 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:08 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1080 | 215 | 538 | | mg/Kg-dry | 100 | 02/27/24 04:01 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 7.96 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-121, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-20 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:10 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 552 | 210 | 525 | | mg/Kg-dry | 100 | 02/26/24 06:18 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.64 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-122, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-21 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:12 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1360 | 210 | 524 | | mg/Kg-dry | 100 | 02/26/24 06:36 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.20 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-123, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-22 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:14 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 621 | 205 | 513 | | mg/Kg-dry | 100 | 02/26/24 07:12 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 3.91 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-124, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-23 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:16 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 920 | 208 | 519 | | mg/Kg-dry | 100 | 02/26/24 08:06 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.20 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-125, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-24 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:18 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1130 | 209 | 523 | | mg/Kg-dry | 100 | 02/26/24 08:24 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 6.44 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-126, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-25 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:20 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1280 | 205 | 512 | | mg/Kg-dry | 100 | 02/26/24 08:42 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.57 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-127, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-26 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:22 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 237 | 208 | 520 | J | mg/Kg-dry | 100 | 02/26/24 09:00 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.91 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-128, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-27 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:24 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 343 | 204 | 511 | J | mg/Kg-dry | 100 | 02/26/24 09:18 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.16 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-129, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-28 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:26 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1440 | 213 | 533 | | mg/Kg-dry | 100 | 02/26/24 09:36 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 8.36 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-130, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-29 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:28 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 977 | 203 | 507 | | mg/Kg-dry | 100 | 02/26/24 09:54 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.14 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-131, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-30 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:30 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 3110 | 221 | 554 | | mg/Kg-dry | 100 | 02/26/24 11:24 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 10.9 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-132, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-31 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:32 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1370 | 208 | 519 | | mg/Kg-dry | 100 | 02/26/24 11:42 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 4.01 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-133, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-32 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:34 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1530 | 212 | 529 | | mg/Kg-dry | 100 | 02/27/24 12:18 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 6.65 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-134, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-33 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:36 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1420 | 206 | 515 | | mg/Kg-dry | 100 | 02/27/24 12:36 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.02 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-135, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-34 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:38 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1450 | 211 | 527 | | mg/Kg-dry | 100 | 02/27/24 12:54 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 6.29 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-136, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-35 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:40 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1480 | 219 | 548 | | mg/Kg-dry | 100 | 02/27/24 01:12 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 10.8 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-137, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-36 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:42 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 2230 | 225 | 562 | | mg/Kg-dry | 100 | 02/27/24 01:30 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 11.9 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-138, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-37 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:44 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1240 | 206 | 514 | | mg/Kg-dry | 100 | 02/27/24 01:48 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 6.47 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-139, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-38 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:46 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 867 | 209 | 522 | | mg/Kg-dry | 100 | 02/27/24 02:06 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 4.44 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-140, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-39 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:48 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1120 | 207 | 518 | | mg/Kg-dry | 100 | 02/27/24 02:24 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 7.04 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-141, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-40 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:50 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 717 | 207 | 516 | | mg/Kg-dry | 100 | 02/27/24 06:33 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.61 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-142, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-41 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:52 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 784 | 204 | 511 | | mg/Kg-dry | 100 | 02/27/24 06:52 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.66 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-143, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-42 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:54 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 543 | 209 | 523 | | mg/Kg-dry | 100 | 02/27/24 07:30 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.07 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-144, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-43 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:56 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 760 | 208 | 521 | | mg/Kg-dry | 100 | 02/27/24 08:27 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.31 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-145, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-44 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 09:59 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 851 | 211 | 527 | | mg/Kg-dry | 100 | 02/27/24 08:46 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.47 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-146, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-45 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 10:00 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1220 | 206 | 516 | | mg/Kg-dry | 100 | 02/27/24 09:05 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 3.68 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-147, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-46 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 10:02 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1180 | 212 | 530 | | mg/Kg-dry | 100 | 02/27/24 09:24 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 7.74 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-148, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-47 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 10:04 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1050 | 211 | 528 | | mg/Kg-dry | 100 | 02/27/24 09:43 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 6.63 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-149, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-48 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 10:06 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1710 | 208 | 521 | | mg/Kg-dry | 100 | 02/27/24 10:02 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.69 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-150, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-49 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 10:08 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 783 | 215 | 536 | | mg/Kg-dry | 100 | 02/27/24 10:21 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 7.71 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-151, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-50 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 10:10 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 159 | 20.9 | 52.3 | | mg/Kg-dry | 10 | 02/28/24 03:08 AM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 4.94 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-152, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-51 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 10:12 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 861 | 204 | 509 | | mg/Kg-dry | 100 | 02/27/24 12:15 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 2.92 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-153, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-52 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 10:14 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 1290 | 210 | 526 | | mg/Kg-dry | 100 | 02/27/24 12:53 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 5.34 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

# DHL Analytical, Inc.

**Date:** *29-Feb-24*

| | | | |
|---|---|---|---|
| **CLIENT:** | Larson & Associates | **Client Sample ID:** | C-154, 4.1 |
| **Project:** | Culebra Bluff SE 532 Fed Coms | **Lab ID:** | 2402322-53 |
| **Project No:** | 19-0180-07 | **Collection Date:** | 02/09/24 10:16 AM |
| **Lab Order:** | 2402322 | **Matrix:** | SOIL |

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **ANIONS BY IC METHOD - SOIL** | | **E300.0** | | | | | Analyst: **RA** |
| Chloride | 995 | 203 | 507 | | mg/Kg-dry | 100 | 02/27/24 01:12 PM |
| **PERCENT MOISTURE** | | **D2216** | | | | | Analyst: **KES** |
| Percent Moisture | 3.18 | 0 | 0 | | WT% | 1 | 02/27/24 08:30 AM |

| | | | | | |
|---|---|---|---|---|---|
| **Qualifiers:** | * | Value exceeds TCLP Maximum Concentration Level | C | Sample Result or QC discussed in the Case Narrative |
| | DF | Dilution Factor | E | TPH pattern not Gas or Diesel Range Pattern |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | RL | Reporting Limit |
| | S | Spike Recovery outside control limits | N | Parameter not NELAP certified |

DHL Analytical, Inc. **Date:** *29-Feb-24*

**CLIENT:** Larson & Associates
**Work Order:** 2402322
**Project:** Culebra Bluff SE 532 Fed Coms

# ANALYTICAL QC SUMMARY REPORT

**RunID: IC2_240226A**

The QC data in batch 114181 applies to the following samples: 2402322-20A, 2402322-21A, 2402322-22A, 2402322-23A, 2402322-24A, 2402322-25A, 2402322-26A, 2402322-27A, 2402322-28A, 2402322-29A, 2402322-30A, 2402322-31A, 2402322-32A, 2402322-33A, 2402322-34A, 2402322-35A, 2402322-36A, 2402322-37A, 2402322-38A, 2402322-39A

Sample ID: **MB-114181** Batch ID: **114181** TestNo: **E300.0** Units: **mg/Kg**
SampType: **MBLK** Run ID: **IC2_240226A** Analysis Date: **2/26/2024 10:31:35 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <2.00 | 5.00 | 0 | | | | | | | |

Sample ID: **LCS-114181** Batch ID: **114181** TestNo: **E300.0** Units: **mg/Kg**
SampType: **LCS** Run ID: **IC2_240226A** Analysis Date: **2/26/2024 10:49:35 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 43.5 | 5.00 | 50.00 | 0 | 87.1 | 80 | 120 | | | |

Sample ID: **LCSD-114181** Batch ID: **114181** TestNo: **E300.0** Units: **mg/Kg**
SampType: **LCSD** Run ID: **IC2_240226A** Analysis Date: **2/26/2024 11:07:35 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 43.8 | 5.00 | 50.00 | 0 | 87.5 | 80 | 120 | 0.546 | 15 | |

Sample ID: **2402322-21A-DUP** Batch ID: **114181** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **DUP** Run ID: **IC2_240226A** Analysis Date: **2/26/2024 6:54:36 PM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1320 | 518 | 0 | 1363 | | | | 2.85 | 10 | |

Sample ID: **2402322-22AMS** Batch ID: **114181** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **IC2_240226A** Analysis Date: **2/26/2024 7:30:36 PM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 659 | 513 | 102.6 | 621.3 | 36.3 | 80 | 120 | | | S |

Sample ID: **2402322-22AMSD** Batch ID: **114181** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **MSD** Run ID: **IC2_240226A** Analysis Date: **2/26/2024 7:48:36 PM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 656 | 513 | 102.6 | 621.3 | 33.4 | 80 | 120 | 0.455 | 15 | S |

Sample ID: **2402322-31A-DUP** Batch ID: **114181** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **DUP** Run ID: **IC2_240226A** Analysis Date: **2/27/2024 12:00:36 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1360 | 513 | 0 | 1374 | | | | 1.09 | 10 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAP certified |

**CLIENT:** Larson & Associates
**Work Order:** 2402322
**Project:** Culebra Bluff SE 532 Fed Coms

# ANALYTICAL QC SUMMARY REPORT

**RunID:** IC4_240226A

The QC data in batch 114178 applies to the following samples: 2402322-01A, 2402322-02A, 2402322-03A, 2402322-04A, 2402322-05A, 2402322-06A, 2402322-07A, 2402322-08A, 2402322-09A, 2402322-10A, 2402322-11A, 2402322-12A, 2402322-13A, 2402322-14A, 2402322-15A, 2402322-16A, 2402322-17A, 2402322-18A, 2402322-19A

Sample ID: **MB-114178** Batch ID: **114178** TestNo: **E300.0** Units: **mg/Kg**
SampType: **MBLK** Run ID: **IC4_240226A** Analysis Date: **2/26/2024 10:35:21 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <2.00 | 5.00 | | | | | | | | |

Sample ID: **LCS-114178** Batch ID: **114178** TestNo: **E300.0** Units: **mg/Kg**
SampType: **LCS** Run ID: **IC4_240226A** Analysis Date: **2/26/2024 10:54:21 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 48.5 | 5.00 | 50.00 | 0 | 96.9 | 80 | 120 | | | |

Sample ID: **LCSD-114178** Batch ID: **114178** TestNo: **E300.0** Units: **mg/Kg**
SampType: **LCSD** Run ID: **IC4_240226A** Analysis Date: **2/26/2024 11:13:21 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 48.6 | 5.00 | 50.00 | 0 | 97.2 | 80 | 120 | 0.276 | 15 | |

Sample ID: **2402322-01A-DUP** Batch ID: **114178** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **DUP** Run ID: **IC4_240226A** Analysis Date: **2/26/2024 6:50:52 PM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <238 | 595 | 0 | 275.6 | | | | 0 | 10 | |

Sample ID: **2402322-02AMS** Batch ID: **114178** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **IC4_240226A** Analysis Date: **2/26/2024 7:28:52 PM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 297 | 598 | 119.5 | 300.4 | -3.24 | 80 | 120 | | | S |

Sample ID: **2402322-02AMSD** Batch ID: **114178** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **MSD** Run ID: **IC4_240226A** Analysis Date: **2/26/2024 7:47:52 PM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 356 | 598 | 119.5 | 300.4 | 46.2 | 80 | 120 | 18.1 | 15 | SR |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAP certified |

**CLIENT:** Larson & Associates
**Work Order:** 2402322
**Project:** Culebra Bluff SE 532 Fed Coms

# ANALYTICAL QC SUMMARY REPORT

**RunID:** IC4_240226B

The QC data in batch 114182 applies to the following samples: 2402322-40A, 2402322-41A, 2402322-42A, 2402322-43A, 2402322-44A, 2402322-45A, 2402322-46A, 2402322-47A, 2402322-48A, 2402322-49A, 2402322-50A, 2402322-51A, 2402322-52A, 2402322-53A

Sample ID: **MB-114182** Batch ID: **114182** TestNo: **E300.0** Units: **mg/Kg**
SampType: **MBLK** Run ID: **IC4_240226B** Analysis Date: **2/27/2024 5:36:51 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <2.00 | 5.00 | | | | | | | | |

Sample ID: **LCS-114182** Batch ID: **114182** TestNo: **E300.0** Units: **mg/Kg**
SampType: **LCS** Run ID: **IC4_240226B** Analysis Date: **2/27/2024 5:55:51 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 49.1 | 5.00 | 50.00 | 0 | 98.1 | 80 | 120 | | | |

Sample ID: **2402322-51A-DUP** Batch ID: **114182** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **DUP** Run ID: **IC4_240226B** Analysis Date: **2/27/2024 12:34:51 PM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 865 | 508 | 0 | 861.0 | | | | 0.488 | 10 | |

Sample ID: **LCSD-114182** Batch ID: **114182** TestNo: **E300.0** Units: **mg/Kg**
SampType: **LCSD** Run ID: **IC4_240226B** Analysis Date: **2/27/2024 6:14:51 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 50.5 | 5.00 | 50.00 | 0 | 101 | 80 | 120 | 2.78 | 15 | |

Sample ID: **2402322-41A-DUP** Batch ID: **114182** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **DUP** Run ID: **IC4_240226B** Analysis Date: **2/27/2024 7:11:51 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 820 | 512 | 0 | 783.8 | | | | 4.50 | 10 | |

Sample ID: **2402322-42AMS** Batch ID: **114182** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **IC4_240226B** Analysis Date: **2/27/2024 7:49:51 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 702 | 508 | 101.7 | 543.3 | 156 | 80 | 120 | | | S |

Sample ID: **2402322-42AMSD** Batch ID: **114182** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **MSD** Run ID: **IC4_240226B** Analysis Date: **2/27/2024 8:08:51 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 694 | 508 | 101.7 | 543.3 | 149 | 80 | 120 | 1.15 | 15 | S |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAP certified |

**CLIENT:** Larson & Associates
**Work Order:** 2402322
**Project:** Culebra Bluff SE 532 Fed Coms

# ANALYTICAL QC SUMMARY REPORT

**RunID:** IC4_240227A

The QC data in batch 114178 applies to the following samples: 2402322-01A, 2402322-02A, 2402322-03A, 2402322-04A, 2402322-05A, 2402322-06A, 2402322-07A, 2402322-08A, 2402322-09A, 2402322-10A, 2402322-11A, 2402322-12A, 2402322-13A, 2402322-14A, 2402322-15A, 2402322-16A, 2402322-17A, 2402322-18A, 2402322-19A

Sample ID: **2402322-11A-DUP** Batch ID: **114178** TestNo: **E300.0** Units: **mg/Kg-dry**
SampType: **DUP** Run ID: **IC4_240227A** Analysis Date: **2/28/2024 2:11:40 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 318 | 60.0 | 0 | 233.9 | | | | 30.6 | 10 | R |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAP certified |

**CLIENT:** Larson & Associates
**Work Order:** 2402322
**Project:** Culebra Bluff SE 532 Fed Coms

# ANALYTICAL QC SUMMARY REPORT

**RunID:** **PMOIST_240226A**

The QC data in batch 114184 applies to the following samples: 2402322-01A, 2402322-02A, 2402322-03A, 2402322-04A, 2402322-05A, 2402322-06A, 2402322-07A, 2402322-08A, 2402322-09A, 2402322-10A, 2402322-11A, 2402322-12A, 2402322-13A, 2402322-14A, 2402322-15A, 2402322-16A, 2402322-17A, 2402322-18A, 2402322-19A, 2402322-20A

Sample ID: **2402322-20A-DUP** Batch ID: **114184** TestNo: **D2216** Units: **WT%**
SampType: **DUP** Run ID: **PMOIST_240226A** Analysis Date: **2/27/2024 8:30:00 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Percent Moisture | 5.65 | 0 | 0 | 5.644 | | | | 0.051 | 30 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAP certified |

**CLIENT:** Larson & Associates
**Work Order:** 2402322
**Project:** Culebra Bluff SE 532 Fed Coms

# ANALYTICAL QC SUMMARY REPORT

**RunID:** **PMOIST_240226B**

The QC data in batch 114185 applies to the following samples: 2402322-21A, 2402322-22A, 2402322-23A, 2402322-24A, 2402322-25A, 2402322-26A, 2402322-27A, 2402322-28A, 2402322-29A, 2402322-30A, 2402322-31A, 2402322-32A, 2402322-33A, 2402322-34A, 2402322-35A, 2402322-36A, 2402322-37A, 2402322-38A, 2402322-39A, 2402322-40A

Sample ID: **2402322-40A-DUP** Batch ID: **114185** TestNo: **D2216** Units: **WT%**
SampType: **DUP** Run ID: **PMOIST_240226B** Analysis Date: **2/27/2024 8:30:00 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Percent Moisture | 5.54 | 0 | 0 | 5.610 | | | | 1.26 | 30 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAP certified |

**CLIENT:** Larson & Associates
**Work Order:** 2402322
**Project:** Culebra Bluff SE 532 Fed Coms

# ANALYTICAL QC SUMMARY REPORT

**RunID:** **PMOIST_240226C**

The QC data in batch 114186 applies to the following samples: 2402322-41A, 2402322-42A, 2402322-43A, 2402322-44A, 2402322-45A, 2402322-46A, 2402322-47A, 2402322-48A, 2402322-49A, 2402322-50A, 2402322-51A, 2402322-52A, 2402322-53A

Sample ID: **2402322-41A-DUP** Batch ID: **114186** TestNo: **D2216** Units: **WT%**
SampType: **DUP** Run ID: **PMOIST_240226C** Analysis Date: **2/27/2024 8:30:00 AM** Prep Date: **2/26/2024**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Percent Moisture | 5.23 | 0 | 0 | 5.660 | | | | 7.87 | 30 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAP certified |

# Appendix F

# Photographs

nAB1909160291 spill area viewing west, February 20, 2019

nAB1909160291 spill area viewing southwest, February 20, 2019

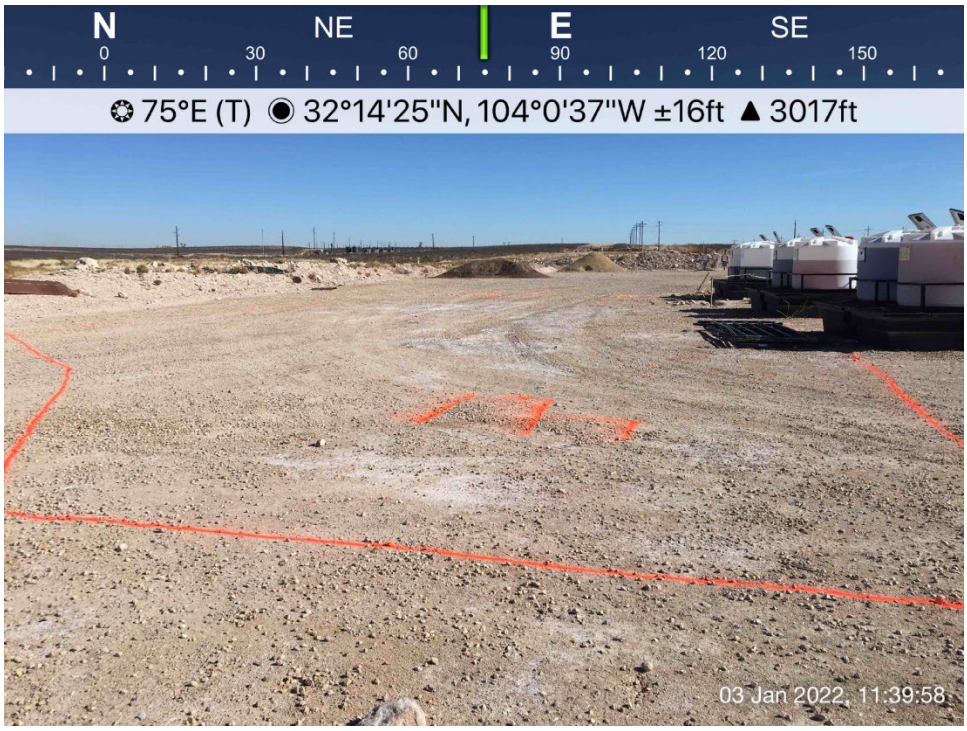
Tracking Number: nAB1902541117/nAB1906052173/nAB1909160291
Closure Report - Brine Water, Oil and Diesel Based Drilling Mud Releases
Chevron USA, Inc. - Culebra Bluff SE 5 32 Fed Com 3
April 26, 2024

nAB1909160291 spill area viewing west, February 20, 2019

Spill area viewing west, January 3, 2022

Spill area viewing southwest, January 3, 2022

Western excavation area viewing southwest, January 3, 2022




Eastern excavation area viewing east, January 3, 2022

Eastern excavation area viewing east, January 11, 2022

Western excavation areas viewing northeast, January 11, 2022

Western excavation area viewing southwest, January 11, 2022

Excavation areas viewing west, July 6, 2023

Excavation areas viewing east, July 6, 2023

Excavation areas viewing southeast, July 6, 2023

Excavation areas viewing north, July 6, 2023

Backfilled excavation and additional sidewall excavated soil viewing west, February 29, 2024

Backfilled excavation and additional sidewall excavated soil viewing southeast, February 29, 2024

Backfilled excavation and additional sidewall excavated soil viewing northeast, July 6, 2024

Backfilled excavation and additional sidewall excavated soil viewing northwest, July 6, 2024

Tracking Number: nAB1902541117/nAB1906052173/nAB1909160291
Closure Report - Brine Water, Oil and Diesel Based Drilling Mud Releases
Chevron USA, Inc. - Culebra Bluff SE 5 32 Fed Com 3
April 26, 2024

Backfilled excavation viewing west, March 8, 2024

Backfilled excavation viewing northeast, March 8, 2024

Tracking Number: nAB1902541117/nAB1906052173/nAB1909160291
Closure Report - Brine Water, Oil and Diesel Based Drilling Mud Releases
Chevron USA, Inc. - Culebra Bluff SE 5 32 Fed Com 3
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# State of New Mexico
# Energy, Minerals and Natural Resources
# Oil Conservation Division
# 1220 S. St Francis Dr.
# Santa Fe, NM 87505

QUESTIONS

Action 342049

## QUESTIONS

| | |
|---|---|
| Operator:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
| | Action Number:<br>342049 |
| | Action Type:<br>[C-141] Remediation Closure Request C-141 (C-141-v-Closure) |

**QUESTIONS**

| **Prerequisites** | |
|---|---|
| Incident ID (n#) | **nAB1906052173** |
| Incident Name | **NAB1906052173 CB SE 5 32 FEDERAL COM 3 #003H @ 30-015-44976** |
| Incident Type | **Release Other** |
| Incident Status | **Remediation Closure Report Received** |
| Incident Well | **[30-015-44976] CB SE 5 32 FEDERAL COM 3 #003H** |

| **Location of Release Source** | |
|---|---|
| *Please answer all the questions in this group.* | |
| Site Name | CB SE 5 32 FEDERAL COM 3 #003H |
| Date Release Discovered | 02/01/2019 |
| Surface Owner | Federal |

| **Incident Details** | |
|---|---|
| *Please answer all the questions in this group.* | |
| Incident Type | Release Other |
| 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 | *Not answered.* |
| Is the concentration of chloride in the produced water >10,000 mg/l | *Not answered.* |
| Condensate Released (bbls) Details | *Not answered.* |
| Natural Gas Vented (Mcf) Details | *Not answered.* |
| Natural Gas Flared (Mcf) Details | *Not answered.* |
| Other Released Details | Cause: Overflow - Tank, Pit, Etc. \| Tank (Any) \| Brine Water \| Released: 10 BBL \| Recovered: 7 BBL \| Lost: 3 BBL. |
| 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:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
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**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<br>Title: Waste & Water Specialist<br>Email: ABarnhill@chevron.com<br>Date: 05/08/2024 |

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# Energy, Minerals and Natural Resources
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## QUESTIONS (continued)

| | |
|---|---|
| Operator:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
| | Action Number:<br>342049 |
| | Action Type:<br>[C-141] Remediation Closure Request C-141 (C-141-v-Closure) |

**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) | Between 51 and 75 (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 | Between 1 and 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 | Between 1 and 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 | Between 1 and 5 (mi.) |
| A wetland | Between ½ and 1 (mi.) |
| A subsurface mine | Between ½ and 1 (mi.) |
| An (non-karst) unstable area | Greater than 5 (mi.) |
| Categorize the risk of this well / site being in a karst geology | Medium |
| 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) | 10700 |
| TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M) | 27500 |
| 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 | 01/01/2022 |
| On what date will (or did) the final sampling or liner inspection occur | 02/06/2024 |
| On what date will (or was) the remediation complete(d) | 02/09/2024 |
| What is the estimated surface area (in square feet) that will be reclaimed | 24831 |
| What is the estimated volume (in cubic yards) that will be reclaimed | 3770 |
| What is the estimated surface area (in square feet) that will be remediated | 28831 |
| What is the estimated volume (in cubic yards) that will be remediated | 3770 |
| *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:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
| | Action Number:<br>342049 |
| | Action Type:<br>[C-141] Remediation Closure Request C-141 (C-141-v-Closure) |

**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<br>Title: Waste & Water Specialist<br>Email: ABarnhill@chevron.com<br>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)

| | |
|---|---|
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| | Action Number:<br>342049 |
| | Action Type:<br>[C-141] Remediation Closure Request C-141 (C-141-v-Closure) |

**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 | No |

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## QUESTIONS (continued)

| | |
|---|---|
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| | Action Number:<br>342049 |
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**QUESTIONS**

| **Sampling Event Information** | |
|---|---|
| Last sampling notification (C-141N) recorded | **310388** |
| Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC | **02/06/2024** |
| What was the (estimated) number of samples that were to be gathered | **25** |
| What was the sampling surface area in square feet | **5000** |

| **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 | Yes |
| Have the lateral and vertical extents of contamination been fully delineated | **Yes** |
| Was this release entirely contained within a lined containment area | **No** |
| All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion | Yes |
| What was the total surface area (in square feet) remediated | 24831 |
| What was the total volume (cubic yards) remediated | 3770 |
| All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene | Yes |
| What was the total surface area (in square feet) reclaimed | 24831 |
| What was the total volume (in cubic yards) reclaimed | 3770 |
| Summarize any additional remediation activities not included by answers (above) | spill contained to pad |

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

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

| | |
|---|---|
| I hereby agree and sign off to the above statement | Name: Amy Barnhill<br>Title: Waste & Water Specialist<br>Email: ABarnhill@chevron.com<br>Date: 05/08/2024 |

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## QUESTIONS (continued)

| | |
|---|---|
| Operator:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
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**QUESTIONS**

| **Reclamation Report** | |
|---|---|
| *Only answer the questions in this group if all reclamation steps have been completed.* | |
| Requesting a reclamation approval with this submission | No |

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Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 342049

## CONDITIONS

| | |
|---|---|
| Operator:<br>CHEVRON U S A INC<br>6301 Deauville Blvd<br>Midland, TX 79706 | OGRID:<br>4323 |
| | Action Number:<br>342049 |
| | Action Type:<br>[C-141] Remediation Closure Request C-141 (C-141-v-Closure) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| scott.rodgers | This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete". | 6/25/2024 |
| scott.rodgers | The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan. | 6/25/2024 |