



March 11, 2026

**New Mexico Oil Conservation Division**

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

**Re: Reclamation Report  
James Ranch Unit 21 Riser  
Incident Number nAPP2322742848  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc (XTO), has prepared the following *Reclamation Report* for the James Ranch Unit 21 Riser (Site). This *Reclamation Report* documents the Site history, reclamation activities completed to date, and proposes a vegetation monitoring plan.

**BACKGROUND**

The Site is located in Unit A, Section 35, Township 22 South, Range 30 East, in Eddy County, New Mexico (32.35505°, -103.84582°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On August 10, 2023, internal corrosion on a steel valve located on a produced water riser caused the release of 5.89 barrels (bbls) of produced water onto the ground surface of a right-of-way (ROW) and pasture area. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 1.0 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via Release Notification Form C-141 (Form C-141) on August 15, 2023. The release was assigned Incident Number nAPP2322742848.

Delineation and excavation of impacted soil was completed at the Site between September 19 and October 13, 2023. The final excavation measured approximately 2,520 square feet. A total of approximately 160 cubic yards of impacted soil were removed during the excavation activities. Based on the delineation and excavation soil sample analytical results, a *Closure Request*, dated November 7, 2023, was submitted to the NMOCD on November 8, 2023. The NMOCD approved the *Closure Request* on March 12, 2024. Additional details regarding the release, Site Characterization, delineation and excavation activities, and soil sample analytical results can be referenced in the approved *Closure Request* attached as an appendix in this report. Remediation of the release was completed in accordance with Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC).

XTO Energy, Inc  
Reclamation Report  
James Ranch Unit 21 Riser

## RECLAMATION ACTIVITIES

Upon completion of excavation activities and receipt of final laboratory analytical results, the excavation was backfilled and the disturbed area was restored to its original condition. The excavation area in the pasture was backfilled with locally procured topsoil. Following backfill activities, the disturbed area was graded and contoured to match the surrounding topography. The release extent and reclamation area are shown on the attached Figure 1.

One representative 5-point composite sample (BF01) was collected from the topsoil backfill material on June 19, 2025. The backfill soil sample was transported under strict chain-of-custody procedures to Cardinal Laboratories in Hobbs, New Mexico, for analysis of the following constituents of concern (COCs): benzene, toluene, ethylbenzene, and total xylenes (BTEX) following United States Environmental Protection Agency (EPA) Method 8021B; total petroleum hydrocarbons (TPH)–gasoline range organics (GRO), TPH–diesel range organics (DRO), and TPH–oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standards Method 4500.

Laboratory analytical results for the backfill soil sample confirmed compliance with NMOCD requirements for the reclaimed area to contain non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 milligrams per kilogram (mg/kg), BTEX concentrations less than 50 mg/kg, and TPH concentrations less than 100 mg/kg. The laboratory analytical results are summarized in the attached Table 1 and the complete laboratory analytical report is included as Appendix A. Photographic documentation of the current Site condition is included in Appendix B.

The pasture area will be seeded during the Spring of 2026, when temperatures and precipitation are conducive to vegetation growth. The Site will be seeded with the below BLM seed mix #2 for sandy sites at the rate specified in pounds of pure live seed (PLS) per acre.

| Species/Cultivar                                    | PLS/Acre |
|---|----------|
| Sand dropseed ( <i>Sporobolus cryptandrus</i> )     | 1.0      |
| Sand love grass ( <i>Eragrostis trichodes</i> )     | 1.0      |
| Plains bristlegrass ( <i>Setaria macrostachya</i> ) | 2.0      |

The seed mix will be applied via drill seeding or broadcast seeding. If broadcast seeding is selected, the PLS/acre will be doubled, and the seed will be covered by chaining or harrowing the Site.

## VEGETATION MONITORING

The Site will be monitored for vegetation growth to ensure that reclamation activities were successful. Focus for this phase will be to prevent erosion and Site degradation, and to monitor for and treat invasive and noxious weed species.

- Annual inspections will take place at the location to assess revegetation progress until vegetation is consistent with local natural vegetation density.
- If necessary, an additional application of the BLM seed mix will be applied.
- Noxious and invasive weeds will be identified and treated by licensed contracted herbicide applicator or mechanically removed.

A *Revegetation Report* will be submitted to the NMOCD once vegetation growth in the reclaimed pasture area has uniform vegetative cover that reflects a life-form ratio of plus or minus 50 percent (%) of pre-disturbance levels and a total percent plant cover of at least 70% of pre-disturbance levels, excluding noxious weeds, per NMAC 19.15.29.13 D.(3).

XTO Energy, Inc  
Reclamation Report  
James Ranch Unit 21 Riser

**RECLAMATION APPROVAL REQUEST**

The approved November 7, 2023, *Closure Request* is included in Appendix C. Based on the reclamation activities completed to date and proposed vegetation monitoring plan described above, XTO respectfully requests approval of this *Reclamation Report* and a status update to *Reclamation Report Approved, Pending submission of Re-Vegetation Report* for Incident nAPP2322742848.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or [tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com).

Sincerely,  
**Ensolum, LLC**



Kim Thomason  
Senior Technician



Aimee Cole  
Senior Managing Scientist

cc: Robert Woodall, XTO  
Richard Kotzur, XTO  
Bureau of Land Management

Appendices:


- Figure 1 Area of Reclamation
- Table 1 Backfill Soil Sample Analytical Results
- Appendix A Laboratory Analytical Report & Chain of Custody Documentation
- Appendix B Photographic Log
- Appendix C November 7, 2023, *Closure Request*



FIGURES

Document Path: C:\Users\pater.rodriguez\OneDrive - ENSOLUM, LLC\Desktop\PAR\_GIS\File Path Structure3 - Carlsbad\XTO Energy, Inc\030556644 - James Ranch Unit 21 Riser\1 - Project\James Ranch Unit 21 Riser.aprx

**Legend**

-  Reclamation Area
-  Release Extent



Source: Environmental Systems Research Institute (ESRI)



**ENSOLUM**  
Environmental, Engineering and  
Hydrogeologic Consultants

**Reclamation Area**

XTO Energy, Inc.  
James Ranch Unit 21 Riser  
Incident Number: NAPP2322742848  
Unit A, Sec 35, T22S, R30E  
Eddy County, New Mexico

**FIGURE**

**1**



TABLES



| <b>TABLE 1</b><br><b>BACKFILL SOIL SAMPLE ANALYTICAL RESULTS</b><br>James Ranch Unit 21 Riser<br>XTO Energy, Inc.<br>Eddy County, New Mexico |           |                  |                 |                    |                 |                 |                 |                 |                   |                  |
|--|-----------|------------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|-------------------|------------------|
| Sample Designation   | Date      | Depth (feet bgs) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH GRO (mg/kg) | TPH DRO (mg/kg) | TPH ORO (mg/kg) | GRO+DRO (mg/kg) | Total TPH (mg/kg) | Chloride (mg/kg) |
| <b>NMOCD Reclamation Requirement</b>   |           |                  | 10              | 50                 | NE              | NE              | NE              | NE              | 100               | 600              |
| <b>Backfill Soil Sample</b>  |           |                  |                 |                    |                 |                 |                 |                 |                   |                  |
| BF01   | 6/19/2025 | Surface          | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 208              |

**Notes:**

*bgs: below ground surface*

*mg/kg: milligrams per kilogram*

*NMOCD: New Mexico Oil Conservation Division*

*NMAC: New Mexico Administrative Code*

*BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes*

*GRO: Gasoline Range Organics*

*DRO: Diesel Range Organics*

*ORO: Oil Range Organics*

*TPH: Total Petroleum Hydrocarbon*



## APPENDIX A

# Laboratory Analytical Report & Chain of Custody<sup>6</sup> Documentation

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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June 27, 2025

TRACY HILLARD

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: JAMES RANCH UNIT 21 RISER - SPILLS

Enclosed are the results of analyses for samples received by the laboratory on 06/23/25 12:18.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

|                  |                              |
|------------------|------------------------------|
| Method EPA 552.2 | Haloacetic Acids (HAA-5)     |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3)  |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

|                   |                                    |                     |               |
|-------------------|------------------------------------|---------------------|---------------|
| Received:         | 06/23/2025                         | Sampling Date:      | 06/19/2025    |
| Reported:         | 06/27/2025                         | Sampling Type:      | Soil          |
| Project Name:     | JAMES RANCH UNIT 21 RISER - SPILLS | Sampling Condition: | Cool & Intact |
| Project Number:   | 03C1558644                         | Sample Received By: | Alyssa Parras |
| Project Location: | XTO 32.35505-103.89582             |                     |               |

**Sample ID: BF 01 0' (H253755-01)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |       |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*       | <0.050 | 0.050           | 06/25/2025 | ND              | 2.02 | 101        | 2.00          | 0.403 |           |
| Toluene*       | <0.050 | 0.050           | 06/25/2025 | ND              | 2.06 | 103        | 2.00          | 0.355 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 06/25/2025 | ND              | 2.10 | 105        | 2.00          | 0.309 |           |
| Total Xylenes* | <0.150 | 0.150           | 06/25/2025 | ND              | 6.16 | 103        | 6.00          | 0.340 |           |
| Total BTEX     | <0.300 | 0.300           | 06/25/2025 | ND              |      |            |               |       |           |

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 208    | 16.0            | 06/25/2025 | ND              | 432 | 108        | 400           | 0.00 |           |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 06/24/2025 | ND              | 203 | 101        | 200           | 4.04 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 06/24/2025 | ND              | 225 | 113        | 200           | 5.65 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 06/24/2025 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 104 % 44.4-145

Surrogate: 1-Chlorooctadecane 100 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

1-1

Company Name: Ensolum, LLC

Project Manager: Tracy Hillard

Address: 601 N Marientfield Street, Suite 400

City: Midland State: TX Zip: 79701

Phone #: (575) 937-3406 Fax #:

Project #: 03C1558644 Project Owner: XTO Energy

Project Name: James Ranch Unit 21 Riser - SPILLS

Project Location: 32.35595, -103.81582

Sampler Name: Trevor Hdrigo

**BILL TO**

P.O. #:

Company: XTO Energy, Inc

Attn: Colton Brown

Address: 3104 E Greene St

City: Carlsbad State: NM Zip: 88220

Phone #:

Fax #:

**ANALYSIS REQUEST**

| Lab I.D. | Sample I.D. | Depth (feet) | (G)RAB OR (C)OMP. | # CONTAINERS | MATRIX                              |            |      |     |        |         |            | DATE     | TIME  | TPH 8015                            | BTEX 8021                           | Chloride 4500                       |
|----------|-------------|--------------|-------------------|--------------|-------------------------------------|------------|------|-----|--------|---------|------------|----------|-------|-------------------------------------|-------------------------------------|-------------------------------------|
|          |             |              |                   |              | GROUNDWATER                         | WASTEWATER | SOIL | OIL | SLUDGE | OTHER : | ACID/BASE: |          |       |                                     |                                     |                                     |
| HAS3855  | BF01        | 0'           |                   | 1            | <input checked="" type="checkbox"/> |            |      |     |        |         |            | 03/19/25 | 11:28 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |
|          |             |              |                   |              |                                     |            |      |     |        |         |            |          |       |                                     |                                     |                                     |

PLEASE NOTE: Liability and Damages: Cardinal's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Trevor Hdrigo Date: 03/25/25 Time: 12:18

Received By: Colton Brown Date: 03/25/25 Time: 12:18

Delivered By: (Circle One) UPS Observed Temp. °C: 20.5 Corrected Temp. °C: 20.5

Sampler - UPS - Bus - Other: 20.5 Sample Condition Cool Intact  Yes  No

Checked By: TR Turnaround Time: 108 Standard  Rush

Thermometer ID: 113 Corrosion Factor: 0.5 Bacteria (only) Sample Condition Cool Intact  Yes  No

Remarks: Incident Number: NAEP2322742898 Cost Center: 1084711001 GFCM: 48605000

Verbal Result:  Yes  No Add'l Phone #: 575-393-2326 All Results are emailed. Please provide Email address: thillard@ensolum.com

Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



## APPENDIX B

### Photographic Log

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**Photographic Log**  
XTO Energy, Inc  
James Ranch Unit 21 Riser  
nAPP2322742848

216°SW (T) • 32.355087, -103.845844 ±5m ▲ 1006m



Sample area

JRU 21 Riser  
19 Jun 2025, 11:04:18 AM

282°W (T) • 32.355087, -103.845844 ±5m ▲ 1006m



Sample area

JRU 21 Riser  
19 Jun 2025, 11:04:35 AM

Photograph: 1 Date: 6/19/2025  
Description: Current site status and backfill activities  
View: Southwest

Photograph: 2 Date: 6/19/2025  
Description: Current site status and backfill activities  
View: West

129°SE (T) • 32.355087, -103.845844 ±5m ▲ 1006m



Sample area

JRU 21 Riser  
19 Jun 2025, 11:04:45 AM

299°W (T) • 32.355087, -103.845844 ±1m ▲ 1006m



Sample area

JRU 21 Riser  
19 Jun 2025, 11:05:09 AM

Photograph: 3 Date: 6/19/2025  
Description: Current site status and backfill activities  
View: Southeast

Photograph: 4 Date: 6/19/2025  
Description: Current site status and backfill activities  
View: West



APPENDIX C

November 7, 2023 *Closure Request*



November 7, 2023

**New Mexico Oil Conservation Division**

1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Closure Request  
James Ranch Unit 21 Riser  
Incident Number NAPP2322742848  
Eddy County, New Mexico**

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document assessment, delineation, excavation, and soil sampling activities performed at the James Ranch Unit 21 Riser (Site). The purpose of the Site assessment, delineation, excavation, and soil sampling activities was to address impacts to soil resulting from a release of produced water at the Site. Based on excavation activities and laboratory analytical results from the soil sampling events, XTO is submitting this *Closure Request*, describing remedial actions that have occurred and requesting closure for Incident Number NAPP2322742848.

### **SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit A, Section 35, Township 22 South, Range 30 East, in Eddy County, New Mexico (32.35505°, -103.84582°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On August 10, 2023, internal corrosion on a steel valve located on a produced water riser caused the release of 5.89 barrels (bbls) of produced water onto the ground surface of a right-of-way (ROW) and pasture area. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 1.0 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on August 15, 2023. The release was assigned Incident Number NAPP2322742848.

### **SITE CHARACTERIZATION AND CLOSURE CRITERIA**

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well/soil boring with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) soil boring C-04731, located approximately 0.66 miles northwest of the Site. The soil boring was drilled during April 2023 to a total depth of 106 feet bgs, and no moisture or groundwater was encountered. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period

XTO Energy, Inc  
Closure Request  
James Ranch Unit 21 Riser



without observing groundwater, it was confirmed groundwater beneath the Site is greater than 106 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermittent dry wash, located approximately 5,209 feet west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). All potential Site receptors are presented on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC.

## **SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS**

On September 19, 2023, Site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Eight delineation soil samples (SS01 through SS08) were collected at a depth of 0.5 feet bgs to assess the extent of the release. Soil samples SS01 through SS04 were collected within the release area and soil samples SS05 through SS08 were collected outside the release area to confirm the lateral extent. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH- GRO, TPH- DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Soil samples delivered to the laboratory the same day they were collected may not have equilibrated to 6 degrees Celsius required for shipment and long-term storage but are considered to have been received in acceptable condition by the laboratory.

XTO Energy, Inc  
Closure Request  
James Ranch Unit 21 Riser



Laboratory analytical results for delineation soil samples SS01 through SS04 indicated chloride and TPH concentrations exceeded the reclamation requirement. Based on laboratory analytical results for soil samples SS01 through SS04, additional delineation and excavation activities were warranted.

## **DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES**

From October 10 to October 13, 2023, Ensolum personnel returned to the Site to oversee delineation and excavation activities. Four boreholes (BH01 through BH04) were advanced via hand auger within the release extent to assess the vertical extent of impacted soil. The boreholes were advanced to depths ranging from 1-foot to 4 feet bgs. Discrete soil samples were collected at the terminal depths of each borehole at depths ranging from 1-foot to 4 feet bgs. Soil from the boreholes was field screened as described above. Field screening results and observations for all boreholes were logged on lithologic soil sampling logs, which are included in Appendix B. All boreholes and delineation soil sample locations are depicted on Figure 2.

Impacted soil was excavated from the release area as indicated by delineation field screening results and laboratory analytical results. Excavation activities were performed utilizing heavy equipment and transport vehicles. The excavation occurred on a ROW and the adjacent pasture area. To direct excavation activities, soil was screened as described above. The excavation was completed to depths ranging from 1-foot to 4 feet bgs. Photographic documentation of the excavation activities is included in Appendix C.

Following removal of the impacted soil, 5-point composite soil samples were collected at least every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW07 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 4 feet bgs. Composite soil samples FS01 through FS15 were collected from the floor of the excavation at depths ranging from 1-foot to 4 feet bgs. The soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

The total excavated area measured approximately 2,520 square feet. A total of approximately 160 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Landfill Facility located in Hobbs, New Mexico.

## **LABORATORY ANALYTICAL RESULTS**

Laboratory analytical results for boreholes BH01 through BH04 and all final confirmation soil samples collected from the final excavation extent were compliant with the reclamation requirement within the top 4 feet of the ROW and pasture area. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix D.

## **CLOSURE REQUEST**

Site assessment, delineation, and excavation activities were conducted at the Site to address the August 2023 release of produced water. Laboratory analytical results for all excavation soil samples collected from the final excavation extent indicated all COC concentrations were compliant with the reclamation requirement. This includes confirmation sidewall soil samples SW01 through SW07, which confirms the lateral definition of the release extent area. Based on the soil sample analytical results, no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour

XTO Energy, Inc  
Closure Request  
James Ranch Unit 21 Riser



the Site to match pre-existing Site conditions. The pasture area affected by the release will be reseeded with an approved BLM seed mixture.

Excavation of impacted soil has mitigated impacts at this Site. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number NAPP2322742848.

If you have any questions or comments, please contact Mr. Benjamin Belill at (989) 854-0852 or bbelill@ensolum.com.

Sincerely,  
**Ensolum, LLC**

A handwritten signature in black ink that reads "Ben J. Belill".

Benjamin J. Belill  
Project Geologist

A handwritten signature in black ink that reads "Ashley L. Ager".

Ashley L Ager, MS, PG  
Principal

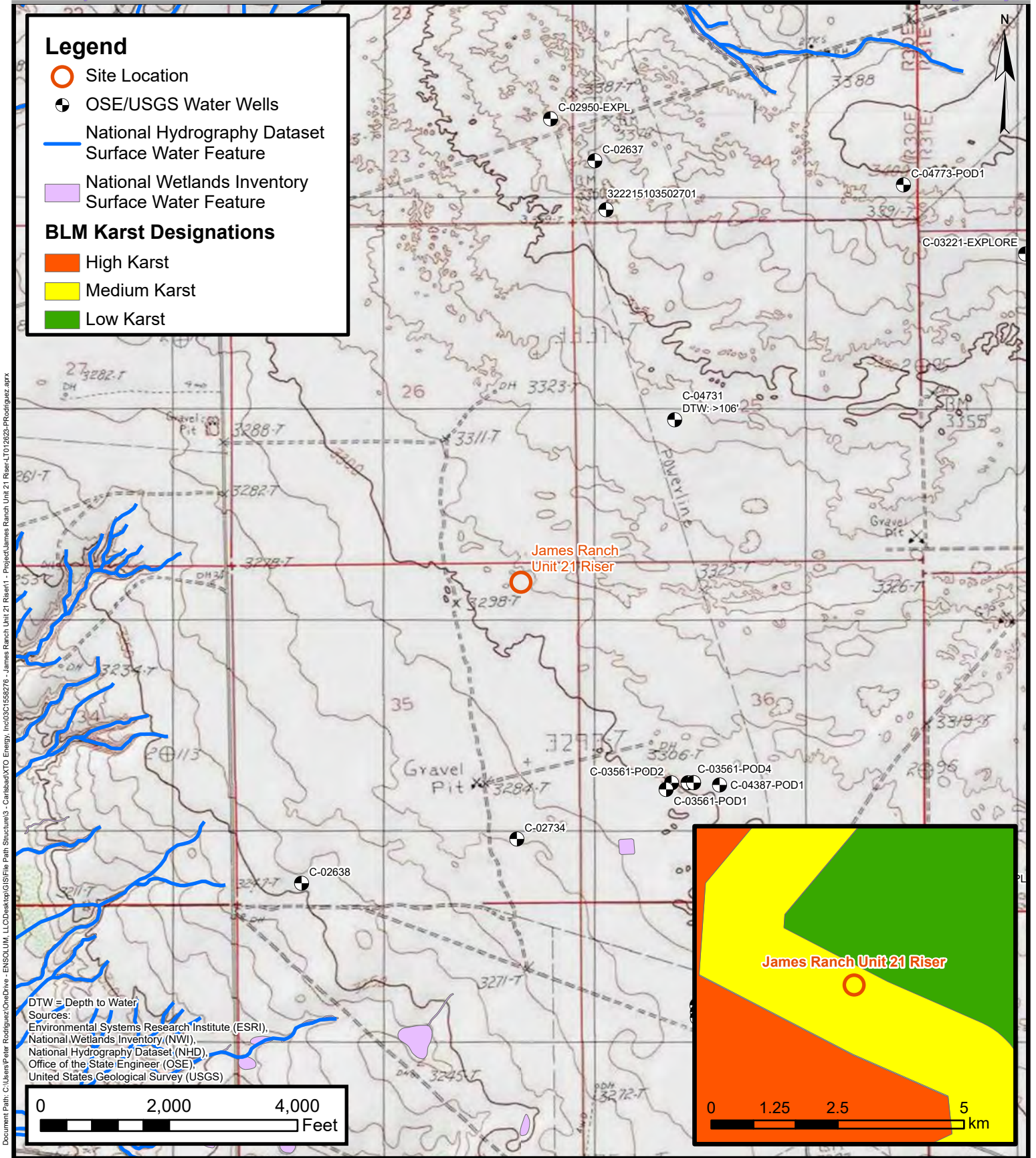
cc: Garrett Green, XTO  
Tomme Lambert, XTO  
BLM

Appendices:

- Figure 1 Site Receptor Map
- Figure 2 Delineation Soil Sample Locations
- Figure 3 Excavation Soil Sample Locations
- Table 1 Soil Sample Analytical Results
- Appendix A Referenced Well Records
- Appendix B Lithologic Soil Sampling Logs
- Appendix C Photographic Log
- Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation
- Appendix E NMOCD Correspondence



FIGURES



Document Path: C:\Users\Peter.Rodriguez\OneDrive - ENSOLUM\LC\Operations\GIS\Files\Path\_Structure3 - Carlsbad\XTO Energy - Inc\031559276 - James Ranch Unit 21 Riser\1 - Project\James Ranch Unit 21 Riser\1 - Project\James Ranch Unit 21 Riser\1 - Project\James Ranch Unit 21 Riser.aprx



**Site Receptor Map**

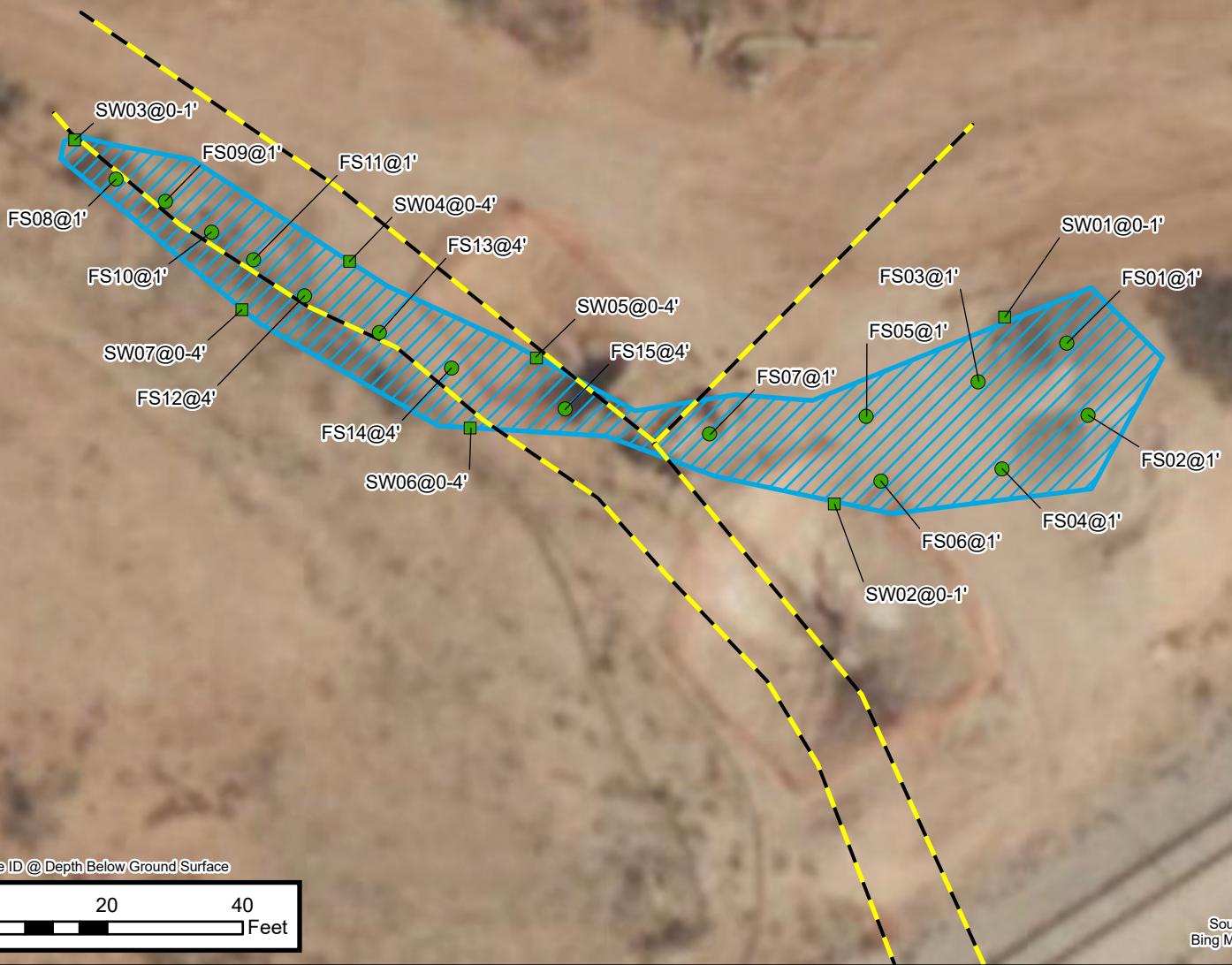
XTO Energy, Inc  
 James Ranch Unit 21 Riser  
 Incident Number: NAPP2322742848  
 Unit A, Sec 35, T22S R30E  
 Eddy County, New Mexico

**FIGURE**  
**1**

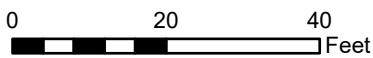


### Legend

- Excavation Sample in Compliance with Closure Criteria
- Sidewall Sample in Compliance with Closure Criteria
- Oil & Gas Utility Line
- Excavation Extent



Note:  
Sample ID @ Depth Below Ground Surface



Source:  
Bing Maps



## Excavation Soil Sample Locations

XTO Energy, Inc  
James Ranch Unit 21 Riser  
Incident Number: NAPP2322742848  
Unit A, Section 35, T22S, R30E  
Eddy County, New Mexico

FIGURE  
**3**



TABLES



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
James Ranch Unit 21 Riser  
XTO Energy, Inc  
Eddy County, New Mexico**

| Sample I.D.   | Sample Date | Sample Depth (feet bgs) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH GRO (mg/kg) | TPH DRO (mg/kg) | TPH ORO (mg/kg) | GRO+DRO (mg/kg) | Total TPH (mg/kg) | Chloride (mg/kg) |
|---|-------------|-------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|-------------------|------------------|
| <b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b> |             |                         | <b>10</b>       | <b>50</b>          | <b>NE</b>       | <b>NE</b>       | <b>NE</b>       | <b>1,000</b>    | <b>2,500</b>      | <b>20,000</b>    |
| <b>Delineation Soil Samples</b>                       |             |                         |                 |                    |                 |                 |                 |                 |                   |                  |
| SS01  | 09/19/2023  | 0.5                     | <0.00200        | <0.00399           | <49.6           | 156             | 69.5            | 156             | <b>226</b>        | <b>6,130</b>     |
| BH01  | 10/10/2023  | 1                       | <0.00201        | <0.00402           | <50.1           | <50.1           | <50.1           | <50.1           | <50.1             | 326              |
| SS02  | 09/19/2023  | 0.5                     | <0.00199        | <0.00398           | <50.3           | <50.3           | <50.3           | <50.3           | <50.3             | <b>4,320</b>     |
| BH02  | 10/10/2023  | 4                       | <0.00200        | <0.00401           | <50.5           | <50.5           | <50.5           | <50.5           | <50.5             | 7,830            |
| SS03  | 09/19/2023  | 0.5                     | <0.00198        | 0.00407            | <50.4           | 106             | <50.4           | 106             | <b>106</b>        | <b>7,760</b>     |
| BH03  | 10/10/2023  | 4                       | <0.00200        | <0.00399           | <49.9           | <49.9           | <49.9           | <49.9           | <49.9             | 7,330            |
| SS04  | 09/19/2023  | 0.5                     | <0.00198        | <0.00397           | <50.1           | <50.1           | <50.1           | <50.1           | <50.1             | <b>6,250</b>     |
| BH04  | 10/10/2023  | 1                       | <0.00202        | <0.00404           | <49.7           | <49.7           | <49.7           | <49.7           | <49.7             | 311              |
| SS05  | 09/19/2023  | 0.5                     | <0.00199        | <0.00398           | <49.6           | <49.6           | <49.6           | <49.6           | <49.6             | 134              |
| SS06  | 09/19/2023  | 0.5                     | <0.00200        | <0.00399           | <49.5           | <49.5           | <49.5           | <49.5           | <49.5             | 56.6             |
| SS07  | 09/19/2023  | 0.5                     | <0.00200        | <0.00401           | <49.6           | <49.6           | <49.6           | <49.6           | <49.6             | 97.7             |
| SS08  | 09/19/2023  | 0.5                     | <0.00199        | <0.00398           | <50.2           | <50.2           | <50.2           | <50.2           | <50.2             | 32.0             |
| <b>Confirmation Soil Samples</b>                      |             |                         |                 |                    |                 |                 |                 |                 |                   |                  |
| FS01  | 10/11/2023  | 1                       | <0.00201        | <0.00402           | <50.5           | <50.5           | <50.5           | <50.5           | <50.5             | 150              |
| FS02  | 10/12/2023  | 1                       | <0.00198        | <0.00396           | <49.9           | <49.9           | <49.9           | <49.9           | <49.9             | 291              |
| FS03  | 10/12/2023  | 1                       | <0.00199        | <0.00398           | <49.9           | <49.9           | <49.9           | <49.9           | <49.9             | 111              |
| FS04  | 10/12/2023  | 1                       | <0.00200        | <0.00399           | <49.6           | <49.6           | <49.6           | <49.6           | <49.6             | 195              |
| FS05  | 10/12/2023  | 1                       | <0.00201        | <0.00402           | <50.3           | <50.3           | <50.3           | <50.3           | <50.3             | 291              |
| FS06  | 10/12/2023  | 1                       | <0.00200        | <0.00401           | <50.5           | <50.5           | <50.5           | <50.5           | <50.5             | 285              |
| FS07  | 10/12/2023  | 1                       | <0.00199        | <0.00398           | <50.5           | <50.5           | <50.5           | <50.5           | <50.5             | 329              |
| FS08  | 10/11/2023  | 1                       | <0.00200        | <0.00401           | <50.0           | <50.0           | <50.0           | <50.0           | <50.0             | 159              |
| FS09  | 10/12/2023  | 1                       | <0.00199        | <0.00398           | <50.0           | <50.0           | <50.0           | <50.0           | <50.0             | 105              |
| FS10  | 10/12/2023  | 1                       | <0.00200        | <0.00399           | <49.9           | <49.9           | <49.9           | <49.9           | <49.9             | 112              |
| FS11  | 10/12/2023  | 1                       | <0.00198        | <0.00396           | <49.9           | <49.9           | <49.9           | <49.9           | <49.9             | 149              |
| FS12  | 10/13/2023  | 4                       | <0.00201        | <0.00402           | <50.1           | <50.1           | <50.1           | <50.1           | <50.1             | 455              |
| FS13  | 10/13/2023  | 4                       | <0.00199        | <0.00398           | <50.5           | <50.5           | <50.5           | <50.5           | <50.5             | 290              |
| FS14  | 10/13/2023  | 4                       | <0.00199        | <0.00398           | <49.9           | <49.9           | <49.9           | <49.9           | <49.9             | 217              |
| FS15  | 10/13/2023  | 4                       | <0.00200        | <0.00399           | <49.7           | <49.7           | <49.7           | <49.7           | <49.7             | 180              |
| SW01  | 10/12/2023  | 0 - 1                   | <0.00200        | <0.00401           | <50.0           | <50.0           | <50.0           | <50.0           | <50.0             | 119              |
| SW02  | 10/11/2023  | 0 - 1                   | <0.00199        | <0.00398           | <49.6           | <49.6           | <49.6           | <49.6           | <49.6             | 168              |
| SW03  | 10/12/2023  | 0 - 1                   | <0.00199        | <0.00398           | <50.1           | <50.1           | <50.1           | <50.1           | <50.1             | 84.7             |



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
James Ranch Unit 21 Riser  
XTO Energy, Inc  
Eddy County, New Mexico**

| Sample I.D.   | Sample Date | Sample Depth (feet bgs) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH GRO (mg/kg) | TPH DRO (mg/kg) | TPH ORO (mg/kg) | GRO+DRO (mg/kg) | Total TPH (mg/kg) | Chloride (mg/kg) |
|---|-------------|-------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|-------------------|------------------|
| <b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b> |             |                         | <b>10</b>       | <b>50</b>          | <b>NE</b>       | <b>NE</b>       | <b>NE</b>       | <b>1,000</b>    | <b>2,500</b>      | <b>20,000</b>    |
| SW04  | 10/13/2023  | 0 - 4                   | <0.00200        | <0.00401           | <49.9           | <49.9           | <49.9           | <49.9           | <49.9             | 275              |
| SW05  | 10/13/2023  | 0 - 4                   | <0.00199        | <0.00398           | <50.3           | <50.3           | <50.3           | <50.3           | <50.3             | 199              |
| SW06  | 10/13/2023  | 0 - 4                   | <0.00199        | <0.00398           | <50.5           | <50.5           | <50.5           | <50.5           | <50.5             | 370              |
| SW07  | 10/13/2023  | 0 - 4                   | <0.00200        | <0.00399           | <50.1           | <50.1           | <50.1           | <50.1           | <50.1             | 244              |

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



## APPENDIX A

### Referenced Well Records

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# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

|   |   |                  |                         |                  |                                  |  |  |
|---|---|------------------|-------------------------|------------------|----------------------------------|--|--|
| <b>1. GENERAL AND WELL LOCATION</b>   | OSE POD NO. (WELL NO.)<br>C-4731 Pod1           |                  | WELL TAG ID NO.<br>BH01 |                  | OSE FILE NO(S).<br>C-4731        |  |  |
|   | WELL OWNER NAME(S)<br>XTO Energy, Inc           |                  |                         |                  | PHONE (OPTIONAL)<br>575-200-0729 |  |  |
|   | WELL OWNER MAILING ADDRESS<br>3104 E. Green St. |                  |                         |                  | CITY<br>Carlsbad                 | STATE ZIP<br>NM 88220  |  |
|   | WELL LOCATION (FROM GPS)                        | DEGREES<br>31    | MINUTES<br>21           | SECONDS<br>42.96 | N                                | * ACCURACY REQUIRED: ONE TENTH OF A SECOND<br>* DATUM REQUIRED: WGS 84 |  |
|   |   | LONGITUDE<br>103 | 50                      | 16.72            | W                                |  |  |
| DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE<br>Unit K, Sec 25, T22S, R30E |   |                  |                         |                  |                                  |  |  |

|   |   |  |                                     |  |   |                              |                                |                    |
|---|---|--|-------------------------------------|--|---|------------------------------|--------------------------------|--------------------|
| <b>2. DRILLING &amp; CASING INFORMATION</b> | LICENSE NO.<br>1188   | NAME OF LICENSED DRILLER<br>SCARBOROUGH DRILLING INC |                                     |  | NAME OF WELL DRILLING COMPANY<br>SCARBOROUGH DRILLING INC |                              |                                |                    |
|   | DRILLING STARTED<br>4/14/23   | DRILLING ENDED<br>4/14/23                            | DEPTH OF COMPLETED WELL (FT)<br>106 | BORE HOLE DEPTH (FT)<br>106  | DEPTH WATER FIRST ENCOUNTERED (FT)<br>N/A                 |                              |                                |                    |
|   | COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)                           |  |                                     |  | STATIC WATER LEVEL IN COMPLETED WELL (FT)<br>>106         |                              |                                |                    |
|   | DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:   |  |                                     |  |   |                              |                                |                    |
|   | DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY: |  |                                     |  |   |                              |                                |                    |
|   | DEPTH (feet bgl)  |  | BORE HOLE DIAM (inches)             | CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen) | CASING CONNECTION TYPE (add coupling diameter)            | CASING INSIDE DIAM. (inches) | CASING WALL THICKNESS (inches) | SLOT SIZE (inches) |
|   | FROM  | TO   |                                     |  |   |                              |                                |                    |
|   | 0   | 106  | 8                                   | NA   |   |                              |                                |                    |
|   |   |  |                                     |  |   |                              |                                |                    |
|   |   |  |                                     |  |   |                              |                                |                    |
|   |   |  |                                     |  |   |                              |                                |                    |
|   |   |  |                                     |  |   |                              |                                |                    |
|   |   |  |                                     |  |   |                              |                                |                    |
|   |   |  |                                     |  |   |                              |                                |                    |

|                            |                  |    |                          |   |                     |                     |
|----------------------------|------------------|----|--------------------------|---|---------------------|---------------------|
| <b>3. ANNULAR MATERIAL</b> | DEPTH (feet bgl) |    | BORE HOLE DIAM. (inches) | LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL | AMOUNT (cubic feet) | METHOD OF PLACEMENT |
|                            | FROM             | TO |                          |   |                     |                     |
|                            |                  |    |                          | NA  |                     |                     |
|                            |                  |    |                          |   |                     |                     |
|                            |                  |    |                          |   |                     |                     |
|                            |                  |    |                          |   |                     |                     |
|                            |                  |    |                          |   |                     |                     |


|                      |                 |  |  |
|----------------------|-----------------|--|--|
| FOR OSE INTERNAL USE |                 | WR-20 WELL RECORD & LOG (Version 04/30/19) |  |
| FILE NO.             | POD NO.         | TRN NO.                                    |  |
| LOCATION             | WELL TAG ID NO. | PAGE 1 OF 2                                |  |

| 4. HYDROGEOLOGIC LOG OF WELL  | DEPTH (feet bgl) |     | THICKNESS (feet) | COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units) | WATER BEARING? (YES / NO)               | ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm) |
|---|------------------|-----|------------------|--|---|---|
|   | FROM             | TO  |                  |  |   |   |
|   | 0                | 10  | 10               | Dark Red very fine Sand  | Y <input checked="" type="checkbox"/> N |   |
|   | 10               | 80  | 70               | Red-brown very fine Sand   | Y <input checked="" type="checkbox"/> N |   |
|   | 80               | 106 | 30               | Pink/red very fine sand with gypsum crystals   | Y <input checked="" type="checkbox"/> N |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
|   |                  |     |                  |  | Y    N                                  |   |
| METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:  |                  |     |                  |  | TOTAL ESTIMATED WELL YIELD (gpm):       |   |
| <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input checked="" type="checkbox"/> OTHER – SPECIFY: NA |                  |     |                  |  | 0.00                                    |   |

|                          |   |   |
|--------------------------|---|---|
| 5. TEST; RIG SUPERVISION | WELL TEST   | TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD. |
|                          | MISCELLANEOUS INFORMATION: Boring was backfilled and properly abandoned following OSE procedures.                                       |   |
|                          | PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:<br>LANE SCARBOROUGH |   |

|              |  |                                   |
|--------------|--|-----------------------------------|
| 6. SIGNATURE | BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING. |                                   |
|              | <br>_____<br>SIGNATURE OF DRILLER / PRINT SIGNEE NAME   | LANE SCARBOROUGH<br>_____<br>DATE |



## APPENDIX B

### Photographic Log

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**Photographic Log**  
XTO Energy, Inc  
James Ranch Unit 21 Riser  
Incident Number nAPP2322742848



Photograph 1 Date: 09/19/2023  
Description: Site assessment activities, release extent  
View: Southeast

Photograph 2 Date: 10/10/2023  
Description: Delineation activities, PH02.  
View: Northwest



Photograph 3 Date: 10/12/2023  
Description: Excavation extent.  
View: Northeast


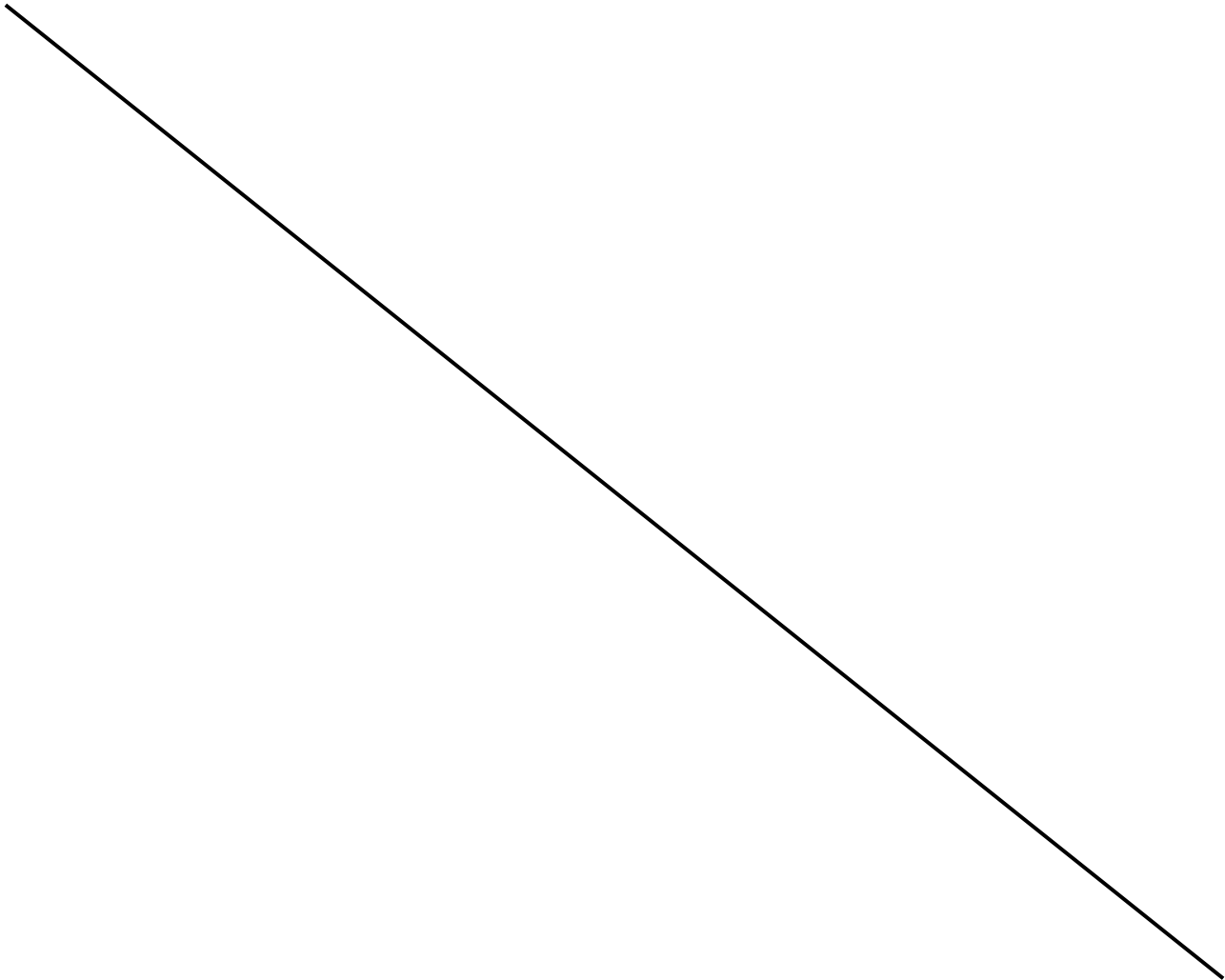
Photograph 4 Date: 10/13/2023  
Description: Excavation extent.  
View: West





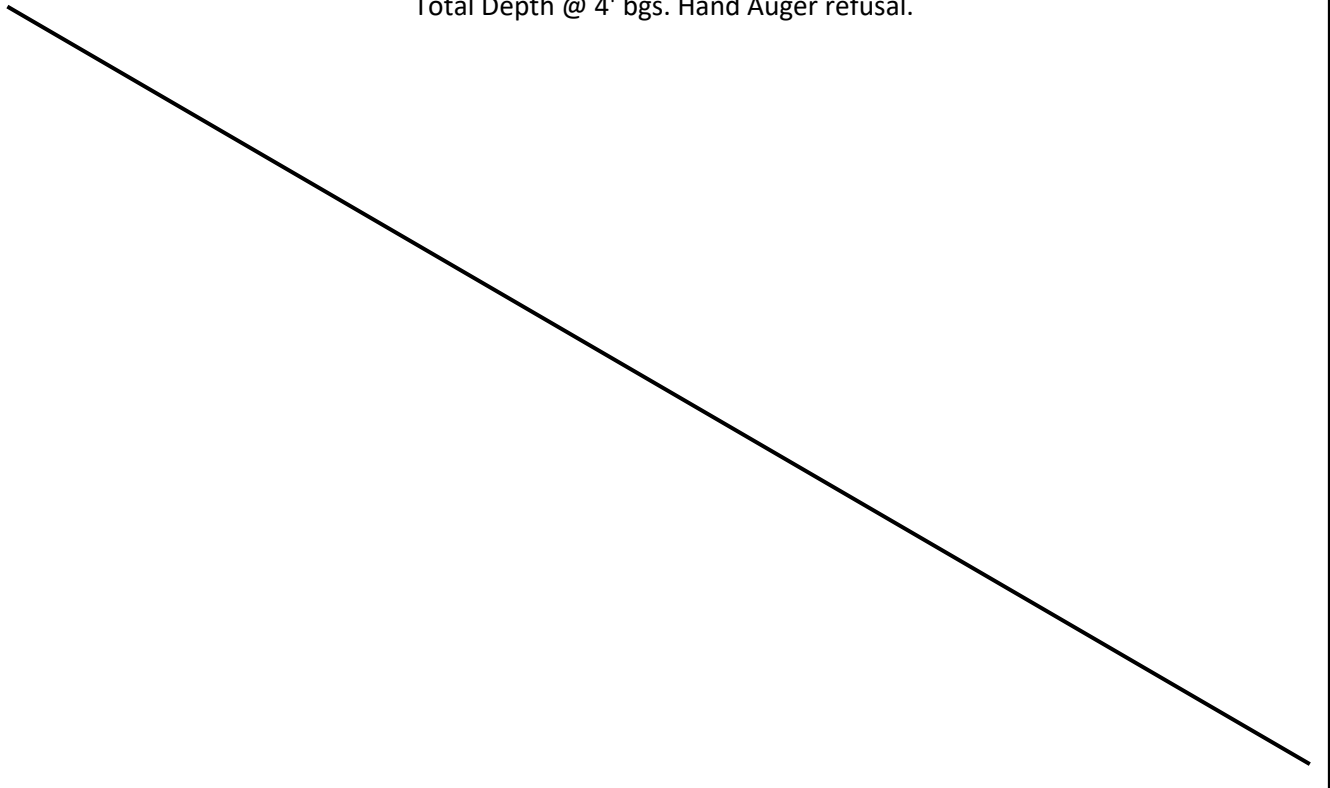
## APPENDIX C


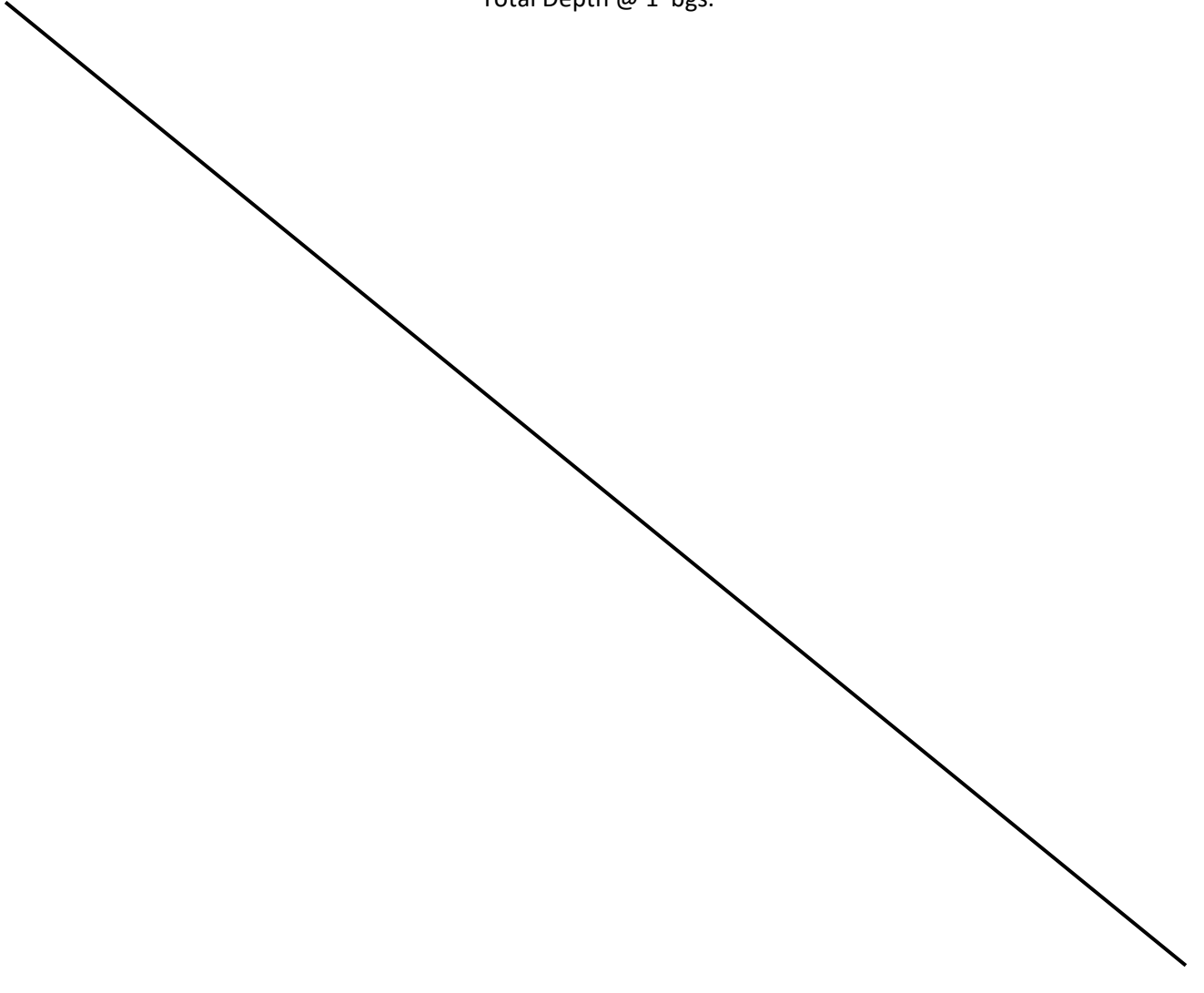
### Lithologic Soil Sampling Logs

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|    |                |             |          |           | Sample Name: BH01                    |                | Date: 10/10/2023   |   |
|---|----------------|-------------|----------|-----------|--------------------------------------|----------------|--------------------|---|
|   |                |             |          |           | Site Name: James Ranch Unit 21 Riser |                |                    |   |
|   |                |             |          |           | Incident Number: nAPP2322742848      |                |                    |   |
|   |                |             |          |           | Job Number: 03C1558276               |                |                    |   |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>   |                |             |          |           | Logged By: M. O'Dell                 |                | Method: Hand Auger |   |
| Coordinates: 32.355140, -103.846279   |                |             |          |           | Hole Diameter: 3.5"                  |                | Total Depth: 1'    |   |
| Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride calculations made with a +40% correction factor. |                |             |          |           |                                      |                |                    |   |
| Moisture Content  | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs)                | Depth (ft bgs) | USCS/Rock Symbol   | Lithologic Descriptions   |
| D   | 15,439         | 0.3         | Y        | SS01      | 0.5                                  | 0              | SP                 | Sand. Reddish brown, very fine to fine grained, poorly graded, moist. |
| M   | <168           | 0.0         | N        | BH01      | 1                                    | 1              |                    |   |
| Total Depth @ 1' bgs.   |                |             |          |           |                                      |                |                    |   |
|    |                |             |          |           |                                      |                |                    |   |

|    |                |             |          |           |                       |                |                  | Sample Name: BH02   | Date: 10/10/2023   |
|---|----------------|-------------|----------|-----------|-----------------------|----------------|------------------|---|--------------------|
|   |                |             |          |           |                       |                |                  | Site Name: James Ranch Unit 21 Riser                                  |                    |
|   |                |             |          |           |                       |                |                  | Incident Number: nAPP2322742848                                       |                    |
|   |                |             |          |           |                       |                |                  | Job Number: 03C1558276  |                    |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>   |                |             |          |           |                       |                |                  | Logged By: M. O'Dell  | Method: Hand Auger |
| Coordinates 32.355065, -103.846210  |                |             |          |           |                       |                |                  | Hole Diameter: 3.5"   | Total Depth: 4'    |
| Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride calculations made with a +40% correction factor. |                |             |          |           |                       |                |                  |   |                    |
| Moisture Content  | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions   |                    |
|   |                |             |          |           |                       | 0              |                  |   |                    |
| D   | 12,896         | 0.2         | Y        | SS02      | 0.5                   |                | SP               | Sand. Reddish brown, very fine to fine grained, poorly graded, moist. |                    |
| M   | 1,859          | 0.0         | N        |           | 1                     | 1              |                  |   |                    |
| M   | 1,400          | 0.0         | N        |           | 2                     | 2              |                  |   |                    |
| M   | 4,469          | 0.0         | N        |           | 3                     | 3              |                  |   |                    |
| M   | 5,729          | 0.0         | N        | BH02      | 4                     | 4              |                  |   |                    |
| Total Depth @ 4' bgs. Hand Auger refusal.   |                |             |          |           |                       |                |                  |   |                    |

|    |                |             |          |           |                       |                | Sample Name: BH03                    |   | Date: 10/10/2023   |  |
|---|----------------|-------------|----------|-----------|-----------------------|----------------|--------------------------------------|---|--------------------|--|
|   |                |             |          |           |                       |                | Site Name: James Ranch Unit 21 Riser |   |                    |  |
|   |                |             |          |           |                       |                | Incident Number: nAPP2322742848      |   |                    |  |
|   |                |             |          |           |                       |                | Job Number: 03C1558276               |   |                    |  |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>   |                |             |          |           |                       |                | Logged By: M. O'Dell                 |   | Method: Hand Auger |  |
| Coordinates: 32.355019, -103.846097   |                |             |          |           |                       |                | Hole Diameter: 3.5"                  |   | Total Depth: 4'    |  |
| Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride calculations made with a +40% correction factor. |                |             |          |           |                       |                |                                      |   |                    |  |
| Moisture Content  | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol                     | Lithologic Descriptions   |                    |  |
| D   | 16,917         | 0.4         | Y        | SS03      | 0.5                   | 0              | SP                                   | Sand. Reddish brown, very fine to fine grained, poorly graded, moist. |                    |  |
| M   | 1,299          | 0.0         | N        |           | 1                     | 1              |                                      |   |                    |  |
| M   | 1,506          | 0.0         | N        |           | 2                     | 2              |                                      |   |                    |  |
| M   | 3,427          | 0.0         | N        |           | 3                     | 3              |                                      |   |                    |  |
| M   | 4,861          | 0.0         | N        | BH03      | 4                     | 4              |                                      |   |                    |  |
| Total Depth @ 4' bgs. Hand Auger refusal.   |                |             |          |           |                       |                |                                      |   |                    |  |
|   |                |             |          |           |                       |                |                                      |   |                    |  |

|    |                |             |          |           | Sample Name: BH04                    |                | Date: 10/10/2023   |   |
|---|----------------|-------------|----------|-----------|--------------------------------------|----------------|--------------------|---|
|   |                |             |          |           | Site Name: James Ranch Unit 21 Riser |                |                    |   |
|   |                |             |          |           | Incident Number: nAPP2322742848      |                |                    |   |
|   |                |             |          |           | Job Number: 03C1558276               |                |                    |   |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>   |                |             |          |           | Logged By: M. O'Dell                 |                | Method: Hand Auger |   |
| Coordinates: 32.355046, -103.845869   |                |             |          |           | Hole Diameter: 3.5"                  |                | Total Depth: 1'    |   |
| Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride calculations made with a +40% correction factor. |                |             |          |           |                                      |                |                    |   |
| Moisture  | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs)                | Depth (ft bgs) | USCS/Rock Symbol   | Lithologic Descriptions   |
| D   | 16,917         | 0.3         | Y        | SS04      | 0.5                                  | 0              | SP                 | Sand. Reddish brown, very fine to fine grained, poorly graded, moist. |
| M   | <168           | 0.0         | N        | BH04      | 1                                    | 1              |                    |   |
| Total Depth @ 1' bgs.   |                |             |          |           |                                      |                |                    |   |
|    |                |             |          |           |                                      |                |                    |   |



## APPENDIX D

### Laboratory Analytical Reports & Chain of Custody Documentation

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Ben Belill  
 Ensolum  
 601 N. Marienfeld St.  
 Suite 400  
 Midland, Texas 79701  
 Generated 9/26/2023 9:38:33 AM

## JOB DESCRIPTION

James Ranch 21 Riser  
 SDG NUMBER 32.35505,-103.4532

## JOB NUMBER

890-5311-1

Eurofins Carlsbad  
 1089 N Canal St.  
 Carlsbad NM 88220



# Eurofins Carlsbad

## 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



Generated  
9/26/2023 9:38:33 AM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

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Client: Ensolum  
Project/Site: James Ranch 21 Riser

Laboratory Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

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## Definitions/Glossary

Client: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

## Qualifiers

## GC VOA

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

## GC Semi VOA

| Qualifier | Qualifier Description                                    |
|-----------|--|
| S1-       | Surrogate recovery exceeds control limits, 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.                                 |
|----------------|---|
| α              | 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: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

**Job ID: 890-5311-1****Laboratory: Eurofins Carlsbad****Narrative**

**Job Narrative**  
**890-5311-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**

The samples were received on 9/20/2023 4:04 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-5311-1), SS02 (890-5311-2), SS03 (890-5311-3), SS04 (890-5311-4), SS05 (890-5311-5), SS06 (890-5311-6), SS07 (890-5311-7) and SS08 (890-5311-8).

**GC VOA**

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS07 (890-5311-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS06 (890-5311-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

**GC Semi VOA**

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (890-5310-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-5311-1) and SS05 (890-5311-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: SS07 (890-5311-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-63132/20), (CCV 880-63132/31), (CCV 880-63132/47), (CCV 880-63132/5), (CCV 880-63132/58) and (LCS 880-63115/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The method blank for preparation batch 880-63115 and analytical batch 880-63132 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

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

**HPLC/IC**

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

### Case Narrative

Client: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

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**Job ID: 890-5311-1 (Continued)**

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**Laboratory: Eurofins Carlsbad (Continued)**

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

**Client Sample ID: SS01**

**Lab Sample ID: 890-5311-1**

Date Collected: 09/19/23 14:50

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 17:44 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 17:44 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 17:44 | 1       |
| m-Xylene & p-Xylene | <0.00399 | U         | 0.00399 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 17:44 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 17:44 | 1       |
| Xylenes, Total      | <0.00399 | U         | 0.00399 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 17:44 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 73        |           | 70 - 130 | 09/22/23 12:00 | 09/22/23 17:44 | 1       |
| 1,4-Difluorobenzene (Surr)  | 99        |           | 70 - 130 | 09/22/23 12:00 | 09/22/23 17:44 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00399 | U         | 0.00399 | mg/Kg |   |          | 09/22/23 17:44 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | 226    |           | 49.6 | mg/Kg |   |          | 09/23/23 13:18 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.6  | U         | 49.6 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 13:18 | 1       |
| Diesel Range Organics (Over C10-C28) | 156    |           | 49.6 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 13:18 | 1       |
| Oil Range Organics (Over C28-C36)    | 69.5   |           | 49.6 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 13:18 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 77        |           | 70 - 130 | 09/22/23 17:09 | 09/23/23 13:18 | 1       |
| o-Terphenyl    | 67        | S1-       | 70 - 130 | 09/22/23 17:09 | 09/23/23 13:18 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 6130   |           | 49.6 | mg/Kg |   |          | 09/25/23 20:17 | 10      |

**Client Sample ID: SS02**

**Lab Sample ID: 890-5311-2**

Date Collected: 09/19/23 14:52

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:04 | 1       |
| Toluene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:04 | 1       |
| Ethylbenzene        | <0.00199 | U         | 0.00199 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:04 | 1       |
| m-Xylene & p-Xylene | <0.00398 | U         | 0.00398 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:04 | 1       |
| o-Xylene            | <0.00199 | U         | 0.00199 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:04 | 1       |
| Xylenes, Total      | <0.00398 | U         | 0.00398 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:04 | 1       |

Eurofins Carlsbad

### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

**Client Sample ID: SS02**

**Lab Sample ID: 890-5311-2**

Date Collected: 09/19/23 14:52

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 81        |           | 70 - 130 | 09/22/23 12:00 | 09/22/23 18:04 | 1       |
| 1,4-Difluorobenzene (Surr)  | 92        |           | 70 - 130 | 09/22/23 12:00 | 09/22/23 18:04 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00398 | U         | 0.00398 | mg/Kg |   |          | 09/22/23 18:04 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.3  | U         | 50.3 | mg/Kg |   |          | 09/23/23 13:39 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.3  | U         | 50.3 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 13:39 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.3  | U         | 50.3 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 13:39 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.3  | U         | 50.3 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 13:39 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 81        |           | 70 - 130 | 09/22/23 17:09 | 09/23/23 13:39 | 1       |
| o-Terphenyl    | 74        |           | 70 - 130 | 09/22/23 17:09 | 09/23/23 13:39 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 4320   |           | 24.9 | mg/Kg |   |          | 09/25/23 20:35 | 5       |

**Client Sample ID: SS03**

**Lab Sample ID: 890-5311-3**

Date Collected: 09/19/23 14:56

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result         | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00198       | U         | 0.00198 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:25 | 1       |
| <b>Toluene</b>      | <b>0.00407</b> |           | 0.00198 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:25 | 1       |
| Ethylbenzene        | <0.00198       | U         | 0.00198 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:25 | 1       |
| m-Xylene & p-Xylene | <0.00396       | U         | 0.00396 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:25 | 1       |
| o-Xylene            | <0.00198       | U         | 0.00198 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:25 | 1       |
| Xylenes, Total      | <0.00396       | U         | 0.00396 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:25 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 71        |           | 70 - 130 | 09/22/23 12:00 | 09/22/23 18:25 | 1       |
| 1,4-Difluorobenzene (Surr)  | 101       |           | 70 - 130 | 09/22/23 12:00 | 09/22/23 18:25 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result  | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|---------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | 0.00407 |           | 0.00396 | mg/Kg |   |          | 09/22/23 18:25 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | 106    |           | 50.4 | mg/Kg |   |          | 09/23/23 14:00 | 1       |

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### Client Sample Results

Client: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

**Client Sample ID: SS03**

**Lab Sample ID: 890-5311-3**

Date Collected: 09/19/23 14:56

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                                     | Result     | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---|------------|-----------|----------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10        | <50.4      | U         | 50.4     | mg/Kg |   | 09/22/23 17:09 | 09/23/23 14:00 | 1       |
| <b>Diesel Range Organics (Over C10-C28)</b> | <b>106</b> |           | 50.4     | mg/Kg |   | 09/22/23 17:09 | 09/23/23 14:00 | 1       |
| Oil Range Organics (Over C28-C36)           | <50.4      | U         | 50.4     | mg/Kg |   | 09/22/23 17:09 | 09/23/23 14:00 | 1       |
| Surrogate                                   | %Recovery  | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                              | 79         |           | 70 - 130 |       |   | 09/22/23 17:09 | 09/23/23 14:00 | 1       |
| o-Terphenyl                                 | 70         |           | 70 - 130 |       |   | 09/22/23 17:09 | 09/23/23 14:00 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 7760   |           | 50.3 | mg/Kg |   |          | 09/25/23 20:41 | 10      |

**Client Sample ID: SS04**

**Lab Sample ID: 890-5311-4**

Date Collected: 09/19/23 14:59

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte                     | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Benzene                     | <0.00198  | U         | 0.00198  | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:45 | 1       |
| Toluene                     | <0.00198  | U         | 0.00198  | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:45 | 1       |
| Ethylbenzene                | <0.00198  | U         | 0.00198  | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:45 | 1       |
| m-Xylene & p-Xylene         | <0.00397  | U         | 0.00397  | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:45 | 1       |
| o-Xylene                    | <0.00198  | U         | 0.00198  | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:45 | 1       |
| Xylenes, Total              | <0.00397  | U         | 0.00397  | mg/Kg |   | 09/22/23 12:00 | 09/22/23 18:45 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 97        |           | 70 - 130 |       |   | 09/22/23 12:00 | 09/22/23 18:45 | 1       |
| 1,4-Difluorobenzene (Surr)  | 81        |           | 70 - 130 |       |   | 09/22/23 12:00 | 09/22/23 18:45 | 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 |   |          | 09/22/23 18:45 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.1  | U         | 50.1 | mg/Kg |   |          | 09/23/23 14:22 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.1     | U         | 50.1     | mg/Kg |   | 09/22/23 17:09 | 09/23/23 14:22 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.1     | U         | 50.1     | mg/Kg |   | 09/22/23 17:09 | 09/23/23 14:22 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.1     | U         | 50.1     | mg/Kg |   | 09/22/23 17:09 | 09/23/23 14:22 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 85        |           | 70 - 130 |       |   | 09/22/23 17:09 | 09/23/23 14:22 | 1       |
| o-Terphenyl                          | 75        |           | 70 - 130 |       |   | 09/22/23 17:09 | 09/23/23 14:22 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

**Client Sample ID: SS04**

**Lab Sample ID: 890-5311-4**

Date Collected: 09/19/23 14:59

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 6250   |           | 50.1 | mg/Kg |   |          | 09/25/23 20:47 | 10      |

**Client Sample ID: SS05**

**Lab Sample ID: 890-5311-5**

Date Collected: 09/19/23 15:45

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte                     | Result           | Qualifier        | RL            | Unit  | D | Prepared        | Analyzed        | Dil Fac        |
|-----------------------------|------------------|------------------|---------------|-------|---|-----------------|-----------------|----------------|
| Benzene                     | <0.00199         | U                | 0.00199       | mg/Kg |   | 09/22/23 12:00  | 09/22/23 19:06  | 1              |
| Toluene                     | <0.00199         | U                | 0.00199       | mg/Kg |   | 09/22/23 12:00  | 09/22/23 19:06  | 1              |
| Ethylbenzene                | <0.00199         | U                | 0.00199       | mg/Kg |   | 09/22/23 12:00  | 09/22/23 19:06  | 1              |
| m-Xylene & p-Xylene         | <0.00398         | U                | 0.00398       | mg/Kg |   | 09/22/23 12:00  | 09/22/23 19:06  | 1              |
| o-Xylene                    | <0.00199         | U                | 0.00199       | mg/Kg |   | 09/22/23 12:00  | 09/22/23 19:06  | 1              |
| Xylenes, Total              | <0.00398         | U                | 0.00398       | mg/Kg |   | 09/22/23 12:00  | 09/22/23 19:06  | 1              |
| <b>Surrogate</b>            | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 4-Bromofluorobenzene (Surr) | 82               |                  | 70 - 130      |       |   | 09/22/23 12:00  | 09/22/23 19:06  | 1              |
| 1,4-Difluorobenzene (Surr)  | 90               |                  | 70 - 130      |       |   | 09/22/23 12:00  | 09/22/23 19:06  | 1              |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00398 | U         | 0.00398 | mg/Kg |   |          | 09/22/23 19:06 | 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 |   |          | 09/23/23 14:43 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result           | Qualifier        | RL            | Unit  | D | Prepared        | Analyzed        | Dil Fac        |
|--------------------------------------|------------------|------------------|---------------|-------|---|-----------------|-----------------|----------------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.6            | U                | 49.6          | mg/Kg |   | 09/22/23 17:09  | 09/23/23 14:43  | 1              |
| Diesel Range Organics (Over C10-C28) | <49.6            | U                | 49.6          | mg/Kg |   | 09/22/23 17:09  | 09/23/23 14:43  | 1              |
| Oll Range Organics (Over C28-C36)    | <49.6            | U                | 49.6          | mg/Kg |   | 09/22/23 17:09  | 09/23/23 14:43  | 1              |
| <b>Surrogate</b>                     | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 1-Chlorooctane                       | 76               |                  | 70 - 130      |       |   | 09/22/23 17:09  | 09/23/23 14:43  | 1              |
| o-Terphenyl                          | 68               | S1-              | 70 - 130      |       |   | 09/22/23 17:09  | 09/23/23 14:43  | 1              |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 134    |           | 5.02 | mg/Kg |   |          | 09/25/23 20:53 | 1       |

### Client Sample Results

Client: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

**Client Sample ID: SS06**

**Lab Sample ID: 890-5311-6**

Date Collected: 09/19/23 15:50

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:26 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:26 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:26 | 1       |
| m-Xylene & p-Xylene | <0.00399 | U         | 0.00399 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:26 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:26 | 1       |
| Xylenes, Total      | <0.00399 | U         | 0.00399 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:26 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 90        |           | 70 - 130 | 09/22/23 12:00 | 09/22/23 19:26 | 1       |
| 1,4-Difluorobenzene (Surr)  | 68        | S1-       | 70 - 130 | 09/22/23 12:00 | 09/22/23 19:26 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00399 | U         | 0.00399 | mg/Kg |   |          | 09/22/23 19:26 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.5  | U         | 49.5 | mg/Kg |   |          | 09/23/23 15:04 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.5  | U         | 49.5 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 15:04 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.5  | U         | 49.5 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 15:04 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.5  | U         | 49.5 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 15:04 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 78        |           | 70 - 130 | 09/22/23 17:09 | 09/23/23 15:04 | 1       |
| o-Terphenyl    | 71        |           | 70 - 130 | 09/22/23 17:09 | 09/23/23 15:04 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 56.6   |           | 5.01 | mg/Kg |   |          | 09/25/23 20:58 | 1       |

**Client Sample ID: SS07**

**Lab Sample ID: 890-5311-7**

Date Collected: 09/19/23 15:53

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:46 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:46 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:46 | 1       |
| m-Xylene & p-Xylene | <0.00401 | U         | 0.00401 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:46 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:46 | 1       |
| Xylenes, Total      | <0.00401 | U         | 0.00401 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 19:46 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 65        | S1-       | 70 - 130 | 09/22/23 12:00 | 09/22/23 19:46 | 1       |

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### Client Sample Results

Client: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

**Client Sample ID: SS07**

**Lab Sample ID: 890-5311-7**

Date Collected: 09/19/23 15:53

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)**

| Surrogate                  | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,4-Difluorobenzene (Surr) | 102       |           | 70 - 130 | 09/22/23 12:00 | 09/22/23 19:46 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00401 | U         | 0.00401 | mg/Kg |   |          | 09/22/23 19:46 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.6  | U         | 49.6 | mg/Kg |   |          | 09/23/23 15:46 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.6  | U         | 49.6 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 15:46 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.6  | U         | 49.6 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 15:46 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.6  | U         | 49.6 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 15:46 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 69        | S1-       | 70 - 130 | 09/22/23 17:09 | 09/23/23 15:46 | 1       |
| o-Terphenyl    | 61        | S1-       | 70 - 130 | 09/22/23 17:09 | 09/23/23 15:46 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 97.7   |           | 4.99 | mg/Kg |   |          | 09/25/23 21:04 | 1       |

**Client Sample ID: SS08**

**Lab Sample ID: 890-5311-8**

Date Collected: 09/19/23 15:56

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 20:07 | 1       |
| Toluene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 20:07 | 1       |
| Ethylbenzene        | <0.00199 | U         | 0.00199 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 20:07 | 1       |
| m-Xylene & p-Xylene | <0.00398 | U         | 0.00398 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 20:07 | 1       |
| o-Xylene            | <0.00199 | U         | 0.00199 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 20:07 | 1       |
| Xylenes, Total      | <0.00398 | U         | 0.00398 | mg/Kg |   | 09/22/23 12:00 | 09/22/23 20:07 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 80        |           | 70 - 130 | 09/22/23 12:00 | 09/22/23 20:07 | 1       |
| 1,4-Difluorobenzene (Surr)  | 91        |           | 70 - 130 | 09/22/23 12:00 | 09/22/23 20:07 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00398 | U         | 0.00398 | mg/Kg |   |          | 09/22/23 20:07 | 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 |   |          | 09/23/23 16:07 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

**Client Sample ID: SS08**

**Lab Sample ID: 890-5311-8**

Date Collected: 09/19/23 15:56

Matrix: Solid

Date Received: 09/20/23 16:04

Sample Depth: 0.5'

**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 | <50.2  | U         | 50.2 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 16:07 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.2  | U         | 50.2 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 16:07 | 1       |
| Oll Range Organics (Over C28-C36)    | <50.2  | U         | 50.2 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 16:07 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 80        |           | 70 - 130 | 09/22/23 17:09 | 09/23/23 16:07 | 1       |
| o-Terphenyl    | 73        |           | 70 - 130 | 09/22/23 17:09 | 09/23/23 16:07 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 32.0   |           | 5.05 | mg/Kg |   |          | 09/25/23 21:22 | 1       |

### Surrogate Summary

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

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

Matrix: Solid

Prep Type: Total/NA

|                     |                        | Percent Surrogate Recovery (Acceptance Limits) |                   |
|---------------------|------------------------|--|-------------------|
| Lab Sample ID       | Client Sample ID       | BFB1<br>(70-130)                               | DFBZ1<br>(70-130) |
| 880-33489-A-1-C MS  | Matrix Spike           | 123  | 103               |
| 880-33489-A-1-D MSD | Matrix Spike Duplicate | 118  | 105               |
| 890-5311-1          | SS01                   | 73   | 99                |
| 890-5311-2          | SS02                   | 81   | 92                |
| 890-5311-3          | SS03                   | 71   | 101               |
| 890-5311-4          | SS04                   | 97   | 81                |
| 890-5311-5          | SS05                   | 82   | 90                |
| 890-5311-6          | SS06                   | 90   | 68 S1-            |
| 890-5311-7          | SS07                   | 65 S1-   | 102               |
| 890-5311-8          | SS08                   | 80   | 91                |
| LCS 880-63016/1-A   | Lab Control Sample     | 112  | 104               |
| LCSD 880-63016/2-A  | Lab Control Sample Dup | 112  | 109               |
| MB 880-63016/5-A    | Method Blank           | 74   | 93                |

**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<br>(70-130)                               | OTPH1<br>(70-130) |
| 890-5310-A-1-G MS      | Matrix Spike           | 81   | 71                |
| 890-5310-A-1-H MSD     | Matrix Spike Duplicate | 79   | 69 S1-            |
| 890-5311-1             | SS01                   | 77   | 67 S1-            |
| 890-5311-2             | SS02                   | 81   | 74                |
| 890-5311-3             | SS03                   | 79   | 70                |
| 890-5311-4             | SS04                   | 85   | 75                |
| 890-5311-5             | SS05                   | 76   | 68 S1-            |
| 890-5311-6             | SS06                   | 78   | 71                |
| 890-5311-7             | SS07                   | 69 S1-   | 61 S1-            |
| 890-5311-8             | SS08                   | 80   | 73                |
| LCS 880-63115/2-A      | Lab Control Sample     | 132 S1+  | 138 S1+           |
| LCSD 880-63115/3-A     | Lab Control Sample Dup | 103  | 103               |
| MB 880-63115/1-A - IN3 | Method Blank           | 111  | 111               |

**Surrogate Legend**  
 1CO = 1-Chlorooctane  
 OTPH = o-Terphenyl

### QC Sample Results

Client: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

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

Lab Sample ID: MB 880-63016/5-A  
Matrix: Solid  
Analysis Batch: 63041

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 63016

| Analyte             | MB Result | MB Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|-----------|--------------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 09/21/23 16:26 | 09/22/23 11:52 | 1       |
| Toluene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 09/21/23 16:26 | 09/22/23 11:52 | 1       |
| Ethylbenzene        | <0.00200  | U            | 0.00200 | mg/Kg |   | 09/21/23 16:26 | 09/22/23 11:52 | 1       |
| m-Xylene & p-Xylene | <0.00400  | U            | 0.00400 | mg/Kg |   | 09/21/23 16:26 | 09/22/23 11:52 | 1       |
| o-Xylene            | <0.00200  | U            | 0.00200 | mg/Kg |   | 09/21/23 16:26 | 09/22/23 11:52 | 1       |
| Xylenes, Total      | <0.00400  | U            | 0.00400 | mg/Kg |   | 09/21/23 16:26 | 09/22/23 11:52 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 74           |              | 70 - 130 | 09/21/23 16:26 | 09/22/23 11:52 | 1       |
| 1,4-Difluorobenzene (Surr)  | 93           |              | 70 - 130 | 09/21/23 16:26 | 09/22/23 11:52 | 1       |

Lab Sample ID: LCS 880-63016/1-A  
Matrix: Solid  
Analysis Batch: 63041

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 63016

| Analyte             | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------------------|-------------|------------|---------------|-------|---|------|-------------|
| Benzene             | 0.100       | 0.09536    |               | mg/Kg |   | 95   | 70 - 130    |
| Toluene             | 0.100       | 0.09705    |               | mg/Kg |   | 97   | 70 - 130    |
| Ethylbenzene        | 0.100       | 0.09230    |               | mg/Kg |   | 92   | 70 - 130    |
| m-Xylene & p-Xylene | 0.200       | 0.1933     |               | mg/Kg |   | 97   | 70 - 130    |
| o-Xylene            | 0.100       | 0.09527    |               | mg/Kg |   | 95   | 70 - 130    |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 112           |               | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 104           |               | 70 - 130 |

Lab Sample ID: LCSD 880-63016/2-A  
Matrix: Solid  
Analysis Batch: 63041

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 63016

| Analyte             | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | Limit |
|---------------------|-------------|-------------|----------------|-------|---|------|-------------|-----|-------|
| Benzene             | 0.100       | 0.09460     |                | mg/Kg |   | 95   | 70 - 130    | 1   | 35    |
| Toluene             | 0.100       | 0.09742     |                | mg/Kg |   | 97   | 70 - 130    | 0   | 35    |
| Ethylbenzene        | 0.100       | 0.09571     |                | mg/Kg |   | 96   | 70 - 130    | 4   | 35    |
| m-Xylene & p-Xylene | 0.200       | 0.2044      |                | mg/Kg |   | 102  | 70 - 130    | 6   | 35    |
| o-Xylene            | 0.100       | 0.1026      |                | mg/Kg |   | 103  | 70 - 130    | 7   | 35    |

| Surrogate                   | LCSD %Recovery | LCSD Qualifier | Limits   |
|-----------------------------|----------------|----------------|----------|
| 4-Bromofluorobenzene (Surr) | 112            |                | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 109            |                | 70 - 130 |

Lab Sample ID: 880-33489-A-1-C MS  
Matrix: Solid  
Analysis Batch: 63041

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 63016

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Benzene | <0.00200      | U                | 0.0996      | 0.09461   |              | mg/Kg |   | 95   | 70 - 130    |
| Toluene | <0.00200      | U                | 0.0996      | 0.09238   |              | mg/Kg |   | 93   | 70 - 130    |

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### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

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

Lab Sample ID: 880-33489-A-1-C MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 63041

Prep Batch: 63016

| Analyte             | Sample   | Sample    | Spike  | MS      | MS        | Unit  | D | %Rec | %Rec     | Limits |
|---------------------|----------|-----------|--------|---------|-----------|-------|---|------|----------|--------|
|                     | Result   | Qualifier |        | Result  | Qualifier |       |   |      |          |        |
| Ethylbenzene        | <0.00200 | U         | 0.0996 | 0.08903 |           | mg/Kg |   | 89   | 70 - 130 |        |
| m-Xylene & p-Xylene | <0.00399 | U         | 0.199  | 0.1783  |           | mg/Kg |   | 90   | 70 - 130 |        |
| o-Xylene            | <0.00200 | U         | 0.0996 | 0.08863 |           | mg/Kg |   | 89   | 70 - 130 |        |

| Surrogate                   | MS        | MS        | Limits   |
|-----------------------------|-----------|-----------|----------|
|                             | %Recovery | Qualifier |          |
| 4-Bromofluorobenzene (Surr) | 123       |           | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 103       |           | 70 - 130 |

Lab Sample ID: 880-33489-A-1-D MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 63041

Prep Batch: 63016

| Analyte             | Sample   | Sample    | Spike  | MSD     | MSD       | Unit  | D | %Rec | %Rec     | Limits | RPD | RPD   |
|---------------------|----------|-----------|--------|---------|-----------|-------|---|------|----------|--------|-----|-------|
|                     | Result   | Qualifier |        | Result  | Qualifier |       |   |      |          |        | RPD | Limit |
| Benzene             | <0.00200 | U         | 0.0996 | 0.09509 |           | mg/Kg |   | 95   | 70 - 130 | 1      | 35  |       |
| Toluene             | <0.00200 | U         | 0.0996 | 0.09511 |           | mg/Kg |   | 95   | 70 - 130 | 3      | 35  |       |
| Ethylbenzene        | <0.00200 | U         | 0.0996 | 0.09523 |           | mg/Kg |   | 96   | 70 - 130 | 7      | 35  |       |
| m-Xylene & p-Xylene | <0.00399 | U         | 0.199  | 0.1997  |           | mg/Kg |   | 100  | 70 - 130 | 11     | 35  |       |
| o-Xylene            | <0.00200 | U         | 0.0996 | 0.09839 |           | mg/Kg |   | 99   | 70 - 130 | 10     | 35  |       |

| Surrogate                   | MSD       | MSD       | Limits   |
|-----------------------------|-----------|-----------|----------|
|                             | %Recovery | Qualifier |          |
| 4-Bromofluorobenzene (Surr) | 118       |           | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 105       |           | 70 - 130 |

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

Lab Sample ID: LCS 880-63115/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 63132

Prep Batch: 63115

| Analyte                              | Spike | LCS    | LCS       | Unit  | D | %Rec | %Rec     | Limits |
|--------------------------------------|-------|--------|-----------|-------|---|------|----------|--------|
|                                      |       | Result | Qualifier |       |   |      |          |        |
| Gasoline Range Organics (GRO)-C6-C10 | 1000  | 726.2  |           | mg/Kg |   | 73   | 70 - 130 |        |
| Diesel Range Organics (Over C10-C28) | 1000  | 892.4  |           | mg/Kg |   | 89   | 70 - 130 |        |

| Surrogate      | LCS       | LCS       | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 132       | S1+       | 70 - 130 |
| o-Terphenyl    | 138       | S1+       | 70 - 130 |

Lab Sample ID: LCSD 880-63115/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 63132

Prep Batch: 63115

| Analyte                              | Spike | LCSD   | LCSD      | Unit  | D | %Rec | %Rec     | Limits | RPD | RPD   |
|--------------------------------------|-------|--------|-----------|-------|---|------|----------|--------|-----|-------|
|                                      |       | Result | Qualifier |       |   |      |          |        | RPD | Limit |
| Gasoline Range Organics (GRO)-C6-C10 | 1000  | 832.8  |           | mg/Kg |   | 83   | 70 - 130 | 14     | 20  |       |
| Diesel Range Organics (Over C10-C28) | 1000  | 976.0  |           | mg/Kg |   | 98   | 70 - 130 | 9      | 20  |       |

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### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

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

**Lab Sample ID: LCSD 880-63115/3-A**  
**Matrix: Solid**  
**Analysis Batch: 63132**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 63115**

| Surrogate      | LCSD      |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 103       |           | 70 - 130 |
| o-Terphenyl    | 103       |           | 70 - 130 |

**Lab Sample ID: 890-5310-A-1-G MS**  
**Matrix: Solid**  
**Analysis Batch: 63132**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 63115**

| Analyte                              | Sample | Sample    | Spike | MS     |           | Unit  | D | %Rec | %Rec | Limits   |
|--------------------------------------|--------|-----------|-------|--------|-----------|-------|---|------|------|----------|
|                                      | Result | Qualifier | Added | Result | Qualifier |       |   |      |      |          |
| Gasoline Range Organics (GRO)-C6-C10 | <50.1  | U         | 1010  | 713.8  |           | mg/Kg |   | 71   |      | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <50.1  | U         | 1010  | 725.5  |           | mg/Kg |   | 72   |      | 70 - 130 |

| Surrogate      | MS        |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 81        |           | 70 - 130 |
| o-Terphenyl    | 71        |           | 70 - 130 |

**Lab Sample ID: 890-5310-A-1-H MSD**  
**Matrix: Solid**  
**Analysis Batch: 63132**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 63115**

| Analyte                              | Sample | Sample    | Spike | MSD    |           | Unit  | D | %Rec | %Rec | Limits   | RPD |       |
|--------------------------------------|--------|-----------|-------|--------|-----------|-------|---|------|------|----------|-----|-------|
|                                      | Result | Qualifier | Added | Result | Qualifier |       |   |      |      |          | RPD | Limit |
| Gasoline Range Organics (GRO)-C6-C10 | <50.1  | U         | 1010  | 709.5  |           | mg/Kg |   | 70   |      | 70 - 130 | 1   | 20    |
| Diesel Range Organics (Over C10-C28) | <50.1  | U         | 1010  | 712.9  |           | mg/Kg |   | 71   |      | 70 - 130 | 2   | 20    |

| Surrogate      | MSD       |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 79        |           | 70 - 130 |
| o-Terphenyl    | 69        | S1-       | 70 - 130 |

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) - IN3

**Lab Sample ID: MB 880-63115/1-A**  
**Matrix: Solid**  
**Analysis Batch: 63132**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 63115**

| Analyte                                    | MB     |           | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--|--------|-----------|------|-------|---|----------------|----------------|---------|
|  | Result | Qualifier |      |       |   |                |                |         |
| Gasoline Range Organics (GRO)-C6-C10 - IN3 | <50.0  | U         | 50.0 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 08:04 | 1       |
| Diesel Range Organics (Over C10-C28) - IN3 | <50.0  | U         | 50.0 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 08:04 | 1       |
| Oil Range Organics (Over C28-C36) - IN3    | <50.0  | U         | 50.0 | mg/Kg |   | 09/22/23 17:09 | 09/23/23 08:04 | 1       |

| Surrogate            | MB        |           | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|-----------|----------|----------------|----------------|---------|
|                      | %Recovery | Qualifier |          |                |                |         |
| 1-Chlorooctane - IN3 | 111       |           | 70 - 130 | 09/22/23 17:09 | 09/23/23 08:04 | 1       |
| o-Terphenyl - IN3    | 111       |           | 70 - 130 | 09/22/23 17:09 | 09/23/23 08:04 | 1       |

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### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-63064/1-A  
 Matrix: Solid  
 Analysis Batch: 63234

Client Sample ID: Method Blank  
 Prep Type: Soluble

| Analyte  | MB Result | MB Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|-----------|--------------|------|-------|---|----------|----------------|---------|
| Chloride | <5.00     | U            | 5.00 | mg/Kg |   |          | 09/25/23 19:25 | 1       |

Lab Sample ID: LCS 880-63064/2-A  
 Matrix: Solid  
 Analysis Batch: 63234

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|-------|---|------|-------------|
| Chloride | 250         | 246.2      |               | mg/Kg |   | 98   | 90 - 110    |

Lab Sample ID: LCSD 880-63064/3-A  
 Matrix: Solid  
 Analysis Batch: 63234

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

| Analyte  | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|-------|---|------|-------------|-----|-----------|
| Chloride | 250         | 246.5       |                | mg/Kg |   | 99   | 90 - 110    | 0   | 20        |

Lab Sample ID: 890-5311-7 MS  
 Matrix: Solid  
 Analysis Batch: 63234

Client Sample ID: SS07  
 Prep Type: Soluble

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Chloride | 97.7          |                  | 250         | 361.9     |              | mg/Kg |   | 106  | 90 - 110    |

Lab Sample ID: 890-5311-7 MSD  
 Matrix: Solid  
 Analysis Batch: 63234

Client Sample ID: SS07  
 Prep Type: Soluble

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Chloride | 97.7          |                  | 250         | 362.6      |               | mg/Kg |   | 106  | 90 - 110    | 0   | 20        |

### QC Association Summary

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

#### GC VOA

##### Prep Batch: 63016

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 890-5311-1          | SS01                   | Total/NA  | Solid  | 5035   |            |
| 890-5311-2          | SS02                   | Total/NA  | Solid  | 5035   |            |
| 890-5311-3          | SS03                   | Total/NA  | Solid  | 5035   |            |
| 890-5311-4          | SS04                   | Total/NA  | Solid  | 5035   |            |
| 890-5311-5          | SS05                   | Total/NA  | Solid  | 5035   |            |
| 890-5311-6          | SS06                   | Total/NA  | Solid  | 5035   |            |
| 890-5311-7          | SS07                   | Total/NA  | Solid  | 5035   |            |
| 890-5311-8          | SS08                   | Total/NA  | Solid  | 5035   |            |
| MB 880-63016/5-A    | Method Blank           | Total/NA  | Solid  | 5035   |            |
| LCS 880-63016/1-A   | Lab Control Sample     | Total/NA  | Solid  | 5035   |            |
| LCSD 880-63016/2-A  | Lab Control Sample Dup | Total/NA  | Solid  | 5035   |            |
| 880-33489-A-1-C MS  | Matrix Spike           | Total/NA  | Solid  | 5035   |            |
| 880-33489-A-1-D MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 5035   |            |

##### Analysis Batch: 63041

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 890-5311-1          | SS01                   | Total/NA  | Solid  | 8021B  | 63016      |
| 890-5311-2          | SS02                   | Total/NA  | Solid  | 8021B  | 63016      |
| 890-5311-3          | SS03                   | Total/NA  | Solid  | 8021B  | 63016      |
| 890-5311-4          | SS04                   | Total/NA  | Solid  | 8021B  | 63016      |
| 890-5311-5          | SS05                   | Total/NA  | Solid  | 8021B  | 63016      |
| 890-5311-6          | SS06                   | Total/NA  | Solid  | 8021B  | 63016      |
| 890-5311-7          | SS07                   | Total/NA  | Solid  | 8021B  | 63016      |
| 890-5311-8          | SS08                   | Total/NA  | Solid  | 8021B  | 63016      |
| MB 880-63016/5-A    | Method Blank           | Total/NA  | Solid  | 8021B  | 63016      |
| LCS 880-63016/1-A   | Lab Control Sample     | Total/NA  | Solid  | 8021B  | 63016      |
| LCSD 880-63016/2-A  | Lab Control Sample Dup | Total/NA  | Solid  | 8021B  | 63016      |
| 880-33489-A-1-C MS  | Matrix Spike           | Total/NA  | Solid  | 8021B  | 63016      |
| 880-33489-A-1-D MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8021B  | 63016      |

##### Analysis Batch: 63242

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method     | Prep Batch |
|---------------|------------------|-----------|--------|------------|------------|
| 890-5311-1    | SS01             | Total/NA  | Solid  | Total BTEX |            |
| 890-5311-2    | SS02             | Total/NA  | Solid  | Total BTEX |            |
| 890-5311-3    | SS03             | Total/NA  | Solid  | Total BTEX |            |
| 890-5311-4    | SS04             | Total/NA  | Solid  | Total BTEX |            |
| 890-5311-5    | SS05             | Total/NA  | Solid  | Total BTEX |            |
| 890-5311-6    | SS06             | Total/NA  | Solid  | Total BTEX |            |
| 890-5311-7    | SS07             | Total/NA  | Solid  | Total BTEX |            |
| 890-5311-8    | SS08             | Total/NA  | Solid  | Total BTEX |            |

#### GC Semi VOA

##### Prep Batch: 63115

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method      | Prep Batch |
|---------------|------------------|-----------|--------|-------------|------------|
| 890-5311-1    | SS01             | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5311-2    | SS02             | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5311-3    | SS03             | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5311-4    | SS04             | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5311-5    | SS05             | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5311-6    | SS06             | Total/NA  | Solid  | 8015NM Prep |            |

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## QC Association Summary

Client: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

## GC Semi VOA (Continued)

## Prep Batch: 63115 (Continued)

| Lab Sample ID          | Client Sample ID       | Prep Type | Matrix | Method      | Prep Batch |
|------------------------|------------------------|-----------|--------|-------------|------------|
| 890-5311-7             | SS07                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5311-8             | SS08                   | Total/NA  | Solid  | 8015NM Prep |            |
| MB 880-63115/1-A - IN3 | Method Blank           | Total/NA  | Solid  | 8015NM Prep |            |
| LCS 880-63115/2-A      | Lab Control Sample     | Total/NA  | Solid  | 8015NM Prep |            |
| LCSD 880-63115/3-A     | Lab Control Sample Dup | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5310-A-1-G MS      | Matrix Spike           | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5310-A-1-H MSD     | Matrix Spike Duplicate | Total/NA  | Solid  | 8015NM Prep |            |

## Analysis Batch: 63132

| Lab Sample ID          | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|------------------------|------------------------|-----------|--------|----------|------------|
| 890-5311-1             | SS01                   | Total/NA  | Solid  | 8015B NM | 63115      |
| 890-5311-2             | SS02                   | Total/NA  | Solid  | 8015B NM | 63115      |
| 890-5311-3             | SS03                   | Total/NA  | Solid  | 8015B NM | 63115      |
| 890-5311-4             | SS04                   | Total/NA  | Solid  | 8015B NM | 63115      |
| 890-5311-5             | SS05                   | Total/NA  | Solid  | 8015B NM | 63115      |
| 890-5311-6             | SS06                   | Total/NA  | Solid  | 8015B NM | 63115      |
| 890-5311-7             | SS07                   | Total/NA  | Solid  | 8015B NM | 63115      |
| 890-5311-8             | SS08                   | Total/NA  | Solid  | 8015B NM | 63115      |
| MB 880-63115/1-A - IN3 | Method Blank           | Total/NA  | Solid  | 8015B NM | 63115      |
| LCS 880-63115/2-A      | Lab Control Sample     | Total/NA  | Solid  | 8015B NM | 63115      |
| LCSD 880-63115/3-A     | Lab Control Sample Dup | Total/NA  | Solid  | 8015B NM | 63115      |
| 890-5310-A-1-G MS      | Matrix Spike           | Total/NA  | Solid  | 8015B NM | 63115      |
| 890-5310-A-1-H MSD     | Matrix Spike Duplicate | Total/NA  | Solid  | 8015B NM | 63115      |

## Analysis Batch: 63158

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method  | Prep Batch |
|---------------|------------------|-----------|--------|---------|------------|
| 890-5311-1    | SS01             | Total/NA  | Solid  | 8015 NM |            |
| 890-5311-2    | SS02             | Total/NA  | Solid  | 8015 NM |            |
| 890-5311-3    | SS03             | Total/NA  | Solid  | 8015 NM |            |
| 890-5311-4    | SS04             | Total/NA  | Solid  | 8015 NM |            |
| 890-5311-5    | SS05             | Total/NA  | Solid  | 8015 NM |            |
| 890-5311-6    | SS06             | Total/NA  | Solid  | 8015 NM |            |
| 890-5311-7    | SS07             | Total/NA  | Solid  | 8015 NM |            |
| 890-5311-8    | SS08             | Total/NA  | Solid  | 8015 NM |            |

## HPLC/IC

## Leach Batch: 63064

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|--------------------|------------------------|-----------|--------|----------|------------|
| 890-5311-1         | SS01                   | Soluble   | Solid  | DI Leach |            |
| 890-5311-2         | SS02                   | Soluble   | Solid  | DI Leach |            |
| 890-5311-3         | SS03                   | Soluble   | Solid  | DI Leach |            |
| 890-5311-4         | SS04                   | Soluble   | Solid  | DI Leach |            |
| 890-5311-5         | SS05                   | Soluble   | Solid  | DI Leach |            |
| 890-5311-6         | SS06                   | Soluble   | Solid  | DI Leach |            |
| 890-5311-7         | SS07                   | Soluble   | Solid  | DI Leach |            |
| 890-5311-8         | SS08                   | Soluble   | Solid  | DI Leach |            |
| MB 880-63064/1-A   | Method Blank           | Soluble   | Solid  | DI Leach |            |
| LCS 880-63064/2-A  | Lab Control Sample     | Soluble   | Solid  | DI Leach |            |
| LCSD 880-63064/3-A | Lab Control Sample Dup | Soluble   | Solid  | DI Leach |            |
| 890-5311-7 MS      | SS07                   | Soluble   | Solid  | DI Leach |            |

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### QC Association Summary

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

**HPLC/IC (Continued)**

**Leach Batch: 63064 (Continued)**

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|----------------|------------------|-----------|--------|----------|------------|
| 890-5311-7 MSD | SS07             | Soluble   | Solid  | DI Leach |            |

**Analysis Batch: 63234**

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-5311-1         | SS01                   | Soluble   | Solid  | 300.0  | 63064      |
| 890-5311-2         | SS02                   | Soluble   | Solid  | 300.0  | 63064      |
| 890-5311-3         | SS03                   | Soluble   | Solid  | 300.0  | 63064      |
| 890-5311-4         | SS04                   | Soluble   | Solid  | 300.0  | 63064      |
| 890-5311-5         | SS05                   | Soluble   | Solid  | 300.0  | 63064      |
| 890-5311-6         | SS06                   | Soluble   | Solid  | 300.0  | 63064      |
| 890-5311-7         | SS07                   | Soluble   | Solid  | 300.0  | 63064      |
| 890-5311-8         | SS08                   | Soluble   | Solid  | 300.0  | 63064      |
| MB 880-63064/1-A   | Method Blank           | Soluble   | Solid  | 300.0  | 63064      |
| LCS 880-63064/2-A  | Lab Control Sample     | Soluble   | Solid  | 300.0  | 63064      |
| LCSD 880-63064/3-A | Lab Control Sample Dup | Soluble   | Solid  | 300.0  | 63064      |
| 890-5311-7 MS      | SS07                   | Soluble   | Solid  | 300.0  | 63064      |
| 890-5311-7 MSD     | SS07                   | Soluble   | Solid  | 300.0  | 63064      |

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### Lab Chronicle

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

**Client Sample ID: SS01**

**Lab Sample ID: 890-5311-1**

Date Collected: 09/19/23 14:50

Matrix: Solid

Date Received: 09/20/23 16:04

| 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         | 63016        | 09/22/23 12:00       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 63041        | 09/22/23 17:44       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 63242        | 09/22/23 17:44       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 63158        | 09/23/23 13:18       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.09 g        | 10 mL        | 63115        | 09/22/23 17:09       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 63132        | 09/23/23 13:18       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.04 g         | 50 mL        | 63064        | 09/22/23 11:15       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 10         | 50 mL          | 50 mL        | 63234        | 09/25/23 20:17       | CH      | EET MID |

**Client Sample ID: SS02**

**Lab Sample ID: 890-5311-2**

Date Collected: 09/19/23 14:52

Matrix: Solid

Date Received: 09/20/23 16:04

| 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         | 63016        | 09/22/23 12:00       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 63041        | 09/22/23 18:04       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 63242        | 09/22/23 18:04       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 63158        | 09/23/23 13:39       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.94 g         | 10 mL        | 63115        | 09/22/23 17:09       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 63132        | 09/23/23 13:39       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.03 g         | 50 mL        | 63064        | 09/22/23 11:15       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 5          | 50 mL          | 50 mL        | 63234        | 09/25/23 20:35       | CH      | EET MID |

**Client Sample ID: SS03**

**Lab Sample ID: 890-5311-3**

Date Collected: 09/19/23 14:56

Matrix: Solid

Date Received: 09/20/23 16:04

| 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         | 63016        | 09/22/23 12:00       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 63041        | 09/22/23 18:25       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 63242        | 09/22/23 18:25       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 63158        | 09/23/23 14:00       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.93 g         | 10 mL        | 63115        | 09/22/23 17:09       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 63132        | 09/23/23 14:00       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.97 g         | 50 mL        | 63064        | 09/22/23 11:15       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 10         | 50 mL          | 50 mL        | 63234        | 09/25/23 20:41       | CH      | EET MID |

**Client Sample ID: SS04**

**Lab Sample ID: 890-5311-4**

Date Collected: 09/19/23 14:59

Matrix: Solid

Date Received: 09/20/23 16:04

| 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         | 63016        | 09/22/23 12:00       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 63041        | 09/22/23 18:45       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 63242        | 09/22/23 18:45       | SM      | EET MID |

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### Lab Chronicle

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

**Client Sample ID: SS04**

**Lab Sample ID: 890-5311-4**

Date Collected: 09/19/23 14:59

Matrix: Solid

Date Received: 09/20/23 16:04

| 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          |                |              | 63158        | 09/23/23 14:22       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.99 g         | 10 mL        | 63115        | 09/22/23 17:09       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 63132        | 09/23/23 14:22       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.99 g         | 50 mL        | 63064        | 09/22/23 11:15       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 10         | 50 mL          | 50 mL        | 63234        | 09/25/23 20:47       | CH      | EET MID |

**Client Sample ID: SS05**

**Lab Sample ID: 890-5311-5**

Date Collected: 09/19/23 15:45

Matrix: Solid

Date Received: 09/20/23 16:04

| 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         | 63016        | 09/22/23 12:00       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 63041        | 09/22/23 19:06       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 63242        | 09/22/23 19:06       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 63158        | 09/23/23 14:43       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.09 g        | 10 mL        | 63115        | 09/22/23 17:09       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 63132        | 09/23/23 14:43       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.98 g         | 50 mL        | 63064        | 09/22/23 11:15       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          | 50 mL          | 50 mL        | 63234        | 09/25/23 20:53       | CH      | EET MID |

**Client Sample ID: SS06**

**Lab Sample ID: 890-5311-6**

Date Collected: 09/19/23 15:50

Matrix: Solid

Date Received: 09/20/23 16:04

| 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         | 63016        | 09/22/23 12:00       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 63041        | 09/22/23 19:26       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 63242        | 09/22/23 19:26       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 63158        | 09/23/23 15:04       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.10 g        | 10 mL        | 63115        | 09/22/23 17:09       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 63132        | 09/23/23 15:04       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.99 g         | 50 mL        | 63064        | 09/22/23 11:15       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          | 50 mL          | 50 mL        | 63234        | 09/25/23 20:58       | CH      | EET MID |

**Client Sample ID: SS07**

**Lab Sample ID: 890-5311-7**

Date Collected: 09/19/23 15:53

Matrix: Solid

Date Received: 09/20/23 16:04

| 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         | 63016        | 09/22/23 12:00       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 63041        | 09/22/23 19:46       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 63242        | 09/22/23 19:46       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 63158        | 09/23/23 15:46       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.08 g        | 10 mL        | 63115        | 09/22/23 17:09       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 63132        | 09/23/23 15:46       | SM      | EET MID |

Eurofins Carlsbad

### Lab Chronicle

Client: Ensolum  
 Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
 SDG: 32.35505,-103.4532

**Client Sample ID: SS07**

**Lab Sample ID: 890-5311-7**

Date Collected: 09/19/23 15:53

Matrix: Solid

Date Received: 09/20/23 16:04

| 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        | 63064        | 09/22/23 11:15       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          | 50 mL          | 50 mL        | 63234        | 09/25/23 21:04       | CH      | EET MID |

**Client Sample ID: SS08**

**Lab Sample ID: 890-5311-8**

Date Collected: 09/19/23 15:56

Matrix: Solid

Date Received: 09/20/23 16:04

| 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         | 63016        | 09/22/23 12:00       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 63041        | 09/22/23 20:07       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 63242        | 09/22/23 20:07       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 63158        | 09/23/23 16:07       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.97 g         | 10 mL        | 63115        | 09/22/23 17:09       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 63132        | 09/23/23 16:07       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.95 g         | 50 mL        | 63064        | 09/22/23 11:15       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          | 50 mL          | 50 mL        | 63234        | 09/25/23 21:22       | CH      | EET MID |

**Laboratory References:**

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

### Accreditation/Certification Summary

Client: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

#### 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 |

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### Method Summary

Client: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

| 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: Ensolum  
Project/Site: James Ranch 21 Riser

Job ID: 890-5311-1  
SDG: 32.35505,-103.4532

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Depth |
|---------------|------------------|--------|----------------|----------------|-------|
| 890-5311-1    | SS01             | Solid  | 09/19/23 14:50 | 09/20/23 16:04 | 0.5'  |
| 890-5311-2    | SS02             | Solid  | 09/19/23 14:52 | 09/20/23 16:04 | 0.5'  |
| 890-5311-3    | SS03             | Solid  | 09/19/23 14:56 | 09/20/23 16:04 | 0.5'  |
| 890-5311-4    | SS04             | Solid  | 09/19/23 14:59 | 09/20/23 16:04 | 0.5'  |
| 890-5311-5    | SS05             | Solid  | 09/19/23 15:45 | 09/20/23 16:04 | 0.5'  |
| 890-5311-6    | SS06             | Solid  | 09/19/23 15:50 | 09/20/23 16:04 | 0.5'  |
| 890-5311-7    | SS07             | Solid  | 09/19/23 15:53 | 09/20/23 16:04 | 0.5'  |
| 890-5311-8    | SS08             | Solid  | 09/19/23 15:56 | 09/20/23 16:04 | 0.5'  |

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Environment Testing  
**Xenco**



Work Order No: \_\_\_\_\_

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|                                      |                                       |
|--------------------------------------|---------------------------------------|
| Project Manager: Ben Bedill          | Bill to: (if different) Garrett Green |
| Company Name: EnsdOm LLC             | Company Name: XTO Energy              |
| Address: 3122 National Park Hwy      | Address: 3104 E Green St              |
| City, State ZIP: Carlsbad, NM, 88220 | City, State ZIP: Carlsbad, NM, 88220  |
| Phone: 989-854-0852                  | Email: bbedill@ensdom.com             |

|                                    |   |            |
|------------------------------------|---|------------|
| Project Name: Sumner Ranch 21 Rig  | Turn Around   | Pres. Code |
| P Project Number: 0361558276       | <input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush |            |
| Project Location: 3235505-10584582 | Due Date: 9/25/23   |            |
| Sampler's Name: Sarah W. Wong      | TAT starts the day received by the lab, if received by 4:30pm             |            |
| PO #:                              |   |            |

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/Comp | # of Cont | Parameters         |                 | Sample Comments      |
|-----------------------|--------|--------------|--------------|-------|-----------|-----------|--------------------|-----------------|----------------------|
|                       |        |              |              |       |           |           | Temp Blank: Yes No | Wet Ice: Yes No |                      |
| 5501                  | S      | 09/19/23     | 14:50        | 0.5'  | G         | 1         |                    |                 | cost center 10871001 |
| 5502                  |        |              | 14:52        |       |           |           |                    |                 |                      |
| 5503                  |        |              | 14:56        |       |           |           |                    |                 |                      |
| 5504                  |        |              | 14:59        |       |           |           |                    |                 |                      |
| 5505                  |        |              | 15:45        |       |           |           |                    |                 |                      |
| 5506                  |        |              | 15:50        |       |           |           |                    |                 |                      |
| 5507                  |        |              | 15:53        |       |           |           |                    |                 |                      |
| 5508                  |        |              | 15:56        |       |           |           |                    |                 |                      |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Date/Time |
|------------------------------|--------------------------|-----------|-----------|
| <i>[Signature]</i>           | <i>[Signature]</i>       | 9/20 1604 | 2         |
|                              |                          |           | 4         |
|                              |                          |           | 6         |

Revised Date: 08/25/2020 Rev. 2020.2



### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5311-1  
SDG Number: 32.35505,-103.4532

**Login Number: 5311**

**List Number: 1**

**Creator: Lopez, Abraham**

**List Source: Eurofins Carlsbad**

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

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### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5311-1  
SDG Number: 32.35505,-103.4532

**Login Number: 5311**  
**List Number: 2**  
**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**  
**List Creation: 09/22/23 10:54 AM**

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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Ben Belill  
Ensolum

601 N. Marienfeld St.  
Suite 400

Midland, Texas 79701

Generated 10/16/2023 11:24:49 AM

## JOB DESCRIPTION

JAMES RANCH UNIT 21 RISER  
SDG NUMBER 03C1558276

## JOB NUMBER

890-5432-1



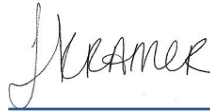
# Eurofins Carlsbad

## 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



Generated  
10/16/2023 11:24:49 AM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

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Client: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Laboratory Job ID: 890-5432-1  
SDG: 03C1558276

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## Definitions/Glossary

Client: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

## Qualifiers

## GC VOA

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

## GC Semi VOA

| Qualifier | Qualifier Description                                     |
|-----------|---|
| *-        | LCS and/or LCSD is outside acceptance limits, low biased. |
| *1        | LCS/LCSD RPD exceeds control limits.                      |
| 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.  |

## 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.                                 |
|----------------|---|
| α              | 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: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

**Job ID: 890-5432-1****Laboratory: Eurofins Carlsbad****Narrative**

**Job Narrative**  
**890-5432-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**

The samples were received on 10/10/2023 3:42 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: BH01 (890-5432-1), BH02 (890-5432-2), BH03 (890-5432-3) and BH04 (890-5432-4).

**GC VOA**

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

**GC Semi VOA**

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-64562 and analytical batch 880-64515 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-64562/2-A) and (LCSD 880-64562/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: BH01 (890-5432-1), BH02 (890-5432-2), BH03 (890-5432-3), BH04 (890-5432-4), (890-5445-A-8-C), (890-5445-A-8-D MS) and (890-5445-A-8-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: The continuing calibration verification (CCV) associated with batch 880-64515 recovered above the upper control limit for Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) due to being inadvertently double spiked. Percent recoveries are based on the amount spiked. The associated samples are impacted: (CCV 880-64515/31) and (CCV 880-64515/47).

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-64562 and analytical batch 880-64515 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 8015MOD\_NM: An incorrect volume of spiking solution was inadvertently added to the laboratory control sample duplicate (LCSD) associated with preparation batch 880-64562 and analytical batch 880-64515. Since only an acceptable LCS is required per the method, the data has been qualified and reported.

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.

### Case Narrative

Client: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

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**Job ID: 890-5432-1 (Continued)**

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**Laboratory: Eurofins Carlsbad (Continued)**

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### Client Sample Results

Client: Ensolum  
 Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
 SDG: 03C1558276

**Client Sample ID: BH01**

**Lab Sample ID: 890-5432-1**

Date Collected: 10/10/23 10:00

Matrix: Solid

Date Received: 10/10/23 15:42

Sample Depth: 1'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:25 | 1       |
| Toluene             | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:25 | 1       |
| Ethylbenzene        | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:25 | 1       |
| m-Xylene & p-Xylene | <0.00402 | U         | 0.00402 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:25 | 1       |
| o-Xylene            | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:25 | 1       |
| Xylenes, Total      | <0.00402 | U         | 0.00402 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:25 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 98        |           | 70 - 130 | 10/11/23 16:59 | 10/12/23 17:25 | 1       |
| 1,4-Difluorobenzene (Surr)  | 93        |           | 70 - 130 | 10/11/23 16:59 | 10/12/23 17:25 | 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 |   |          | 10/12/23 17:25 | 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 |   |          | 10/12/23 22:41 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.1  | U *1      | 50.1 | mg/Kg |   | 10/12/23 13:28 | 10/12/23 22:41 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.1  | U * *1    | 50.1 | mg/Kg |   | 10/12/23 13:28 | 10/12/23 22:41 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.1  | U         | 50.1 | mg/Kg |   | 10/12/23 13:28 | 10/12/23 22:41 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 154       | S1+       | 70 - 130 | 10/12/23 13:28 | 10/12/23 22:41 | 1       |
| o-Terphenyl    | 145       | S1+       | 70 - 130 | 10/12/23 13:28 | 10/12/23 22:41 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 326    |           | 4.98 | mg/Kg |   |          | 10/13/23 16:31 | 1       |

**Client Sample ID: BH02**

**Lab Sample ID: 890-5432-2**

Date Collected: 10/10/23 11:00

Matrix: Solid

Date Received: 10/10/23 15:42

Sample Depth: 4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:46 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:46 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:46 | 1       |
| m-Xylene & p-Xylene | <0.00401 | U         | 0.00401 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:46 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:46 | 1       |
| Xylenes, Total      | <0.00401 | U         | 0.00401 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 17:46 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 95        |           | 70 - 130 | 10/11/23 16:59 | 10/12/23 17:46 | 1       |

Eurofins Carlsbad

### Client Sample Results

Client: Ensolum  
 Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
 SDG: 03C1558276

**Client Sample ID: BH02**

**Lab Sample ID: 890-5432-2**

Date Collected: 10/10/23 11:00

Matrix: Solid

Date Received: 10/10/23 15:42

Sample Depth: 4'

**Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)**

| Surrogate                  | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,4-Difluorobenzene (Surr) | 102       |           | 70 - 130 | 10/11/23 16:59 | 10/12/23 17:46 | 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 |   |          | 10/12/23 17:46 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.5  | U         | 50.5 | mg/Kg |   |          | 10/12/23 23:03 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.5  | U *1      | 50.5 | mg/Kg |   | 10/12/23 13:28 | 10/12/23 23:03 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.5  | U * - *1  | 50.5 | mg/Kg |   | 10/12/23 13:28 | 10/12/23 23:03 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.5  | U         | 50.5 | mg/Kg |   | 10/12/23 13:28 | 10/12/23 23:03 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 151       | S1+       | 70 - 130 | 10/12/23 13:28 | 10/12/23 23:03 | 1       |
| o-Terphenyl    | 144       | S1+       | 70 - 130 | 10/12/23 13:28 | 10/12/23 23:03 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 7830   |           | 49.7 | mg/Kg |   |          | 10/13/23 16:36 | 10      |

**Client Sample ID: BH03**

**Lab Sample ID: 890-5432-3**

Date Collected: 10/10/23 11:35

Matrix: Solid

Date Received: 10/10/23 15:42

Sample Depth: 4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:06 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:06 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:06 | 1       |
| m-Xylene & p-Xylene | <0.00399 | U         | 0.00399 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:06 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:06 | 1       |
| Xylenes, Total      | <0.00399 | U         | 0.00399 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:06 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 113       |           | 70 - 130 | 10/11/23 16:59 | 10/12/23 18:06 | 1       |
| 1,4-Difluorobenzene (Surr)  | 101       |           | 70 - 130 | 10/11/23 16:59 | 10/12/23 18:06 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00399 | U         | 0.00399 | mg/Kg |   |          | 10/12/23 18:06 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.9  | U         | 49.9 | mg/Kg |   |          | 10/12/23 23:25 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
 SDG: 03C1558276

**Client Sample ID: BH03**

**Lab Sample ID: 890-5432-3**

Date Collected: 10/10/23 11:35

Matrix: Solid

Date Received: 10/10/23 15:42

Sample Depth: 4'

**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 |   | 10/12/23 13:28 | 10/12/23 23:25 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.9     | U * - *1  | 49.9     | mg/Kg |   | 10/12/23 13:28 | 10/12/23 23:25 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.9     | U         | 49.9     | mg/Kg |   | 10/12/23 13:28 | 10/12/23 23:25 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 166       | S1+       | 70 - 130 |       |   | 10/12/23 13:28 | 10/12/23 23:25 | 1       |
| o-Terphenyl                          | 158       | S1+       | 70 - 130 |       |   | 10/12/23 13:28 | 10/12/23 23:25 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 7330   |           | 50.0 | mg/Kg |   |          | 10/13/23 16:42 | 10      |

**Client Sample ID: BH04**

**Lab Sample ID: 890-5432-4**

Date Collected: 10/10/23 11:55

Matrix: Solid

Date Received: 10/10/23 15:42

Sample Depth: 1'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte                     | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Benzene                     | <0.00202  | U         | 0.00202  | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:27 | 1       |
| Toluene                     | <0.00202  | U         | 0.00202  | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:27 | 1       |
| Ethylbenzene                | <0.00202  | U         | 0.00202  | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:27 | 1       |
| m-Xylene & p-Xylene         | <0.00404  | U         | 0.00404  | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:27 | 1       |
| o-Xylene                    | <0.00202  | U         | 0.00202  | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:27 | 1       |
| Xylenes, Total              | <0.00404  | U         | 0.00404  | mg/Kg |   | 10/11/23 16:59 | 10/12/23 18:27 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 104       |           | 70 - 130 |       |   | 10/11/23 16:59 | 10/12/23 18:27 | 1       |
| 1,4-Difluorobenzene (Surr)  | 100       |           | 70 - 130 |       |   | 10/11/23 16:59 | 10/12/23 18:27 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00404 | U         | 0.00404 | mg/Kg |   |          | 10/12/23 18:27 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.7  | U         | 49.7 | mg/Kg |   |          | 10/12/23 23:47 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.7     | U *1      | 49.7     | mg/Kg |   | 10/12/23 13:28 | 10/12/23 23:47 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.7     | U * - *1  | 49.7     | mg/Kg |   | 10/12/23 13:28 | 10/12/23 23:47 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.7     | U         | 49.7     | mg/Kg |   | 10/12/23 13:28 | 10/12/23 23:47 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 160       | S1+       | 70 - 130 |       |   | 10/12/23 13:28 | 10/12/23 23:47 | 1       |
| o-Terphenyl                          | 153       | S1+       | 70 - 130 |       |   | 10/12/23 13:28 | 10/12/23 23:47 | 1       |

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### Client Sample Results

Client: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

**Client Sample ID: BH04**

**Lab Sample ID: 890-5432-4**

Date Collected: 10/10/23 11:55

Matrix: Solid

Date Received: 10/10/23 15:42

Sample Depth: 1'

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 311    |           | 5.00 | mg/Kg |   |          | 10/12/23 14:36 | 1       |

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

### Surrogate Summary

Client: Ensolum  
 Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
 SDG: 03C1558276

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

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID       | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                   |
|---------------------|------------------------|--|-------------------|
|                     |                        | BFB1<br>(70-130)                               | DFBZ1<br>(70-130) |
| 880-34317-A-1-A MS  | Matrix Spike           | 121  | 97                |
| 880-34317-A-1-B MSD | Matrix Spike Duplicate | 111  | 91                |
| 890-5432-1          | BH01                   | 98   | 93                |
| 890-5432-2          | BH02                   | 95   | 102               |
| 890-5432-3          | BH03                   | 113  | 101               |
| 890-5432-4          | BH04                   | 104  | 100               |
| LCS 880-64507/1-A   | Lab Control Sample     | 103  | 96                |
| LCS 880-64507/2-A   | Lab Control Sample Dup | 116  | 94                |
| MB 880-64507/5-A    | Method Blank           | 111  | 123               |

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

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

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                   |
|--------------------|------------------------|--|-------------------|
|                    |                        | 1CO1<br>(70-130)                               | OTPH1<br>(70-130) |
| 890-5432-1         | BH01                   | 154 S1+  | 145 S1+           |
| 890-5432-2         | BH02                   | 151 S1+  | 144 S1+           |
| 890-5432-3         | BH03                   | 166 S1+  | 158 S1+           |
| 890-5432-4         | BH04                   | 160 S1+  | 153 S1+           |
| 890-5445-A-8-D MS  | Matrix Spike           | 157 S1+  | 133 S1+           |
| 890-5445-A-8-E MSD | Matrix Spike Duplicate | 169 S1+  | 141 S1+           |
| LCS 880-64562/2-A  | Lab Control Sample     | 142 S1+  | 163 S1+           |
| LCS 880-64562/3-A  | Lab Control Sample Dup | 161 S1+  | 173 S1+           |
| MB 880-64562/1-A   | Method Blank           | 210 S1+  | 209 S1+           |

**Surrogate Legend**  
 1CO = 1-Chlorooctane  
 OTPH = o-Terphenyl

### QC Sample Results

Client: Ensolum  
 Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
 SDG: 03C1558276

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

Lab Sample ID: MB 880-64507/5-A  
 Matrix: Solid  
 Analysis Batch: 64524

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 64507

| Analyte             | MB Result | MB Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|-----------|--------------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 12:01 | 1       |
| Toluene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 12:01 | 1       |
| Ethylbenzene        | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 12:01 | 1       |
| m-Xylene & p-Xylene | <0.00400  | U            | 0.00400 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 12:01 | 1       |
| o-Xylene            | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 12:01 | 1       |
| Xylenes, Total      | <0.00400  | U            | 0.00400 | mg/Kg |   | 10/11/23 16:59 | 10/12/23 12:01 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 111          |              | 70 - 130 | 10/11/23 16:59 | 10/12/23 12:01 | 1       |
| 1,4-Difluorobenzene (Surr)  | 123          |              | 70 - 130 | 10/11/23 16:59 | 10/12/23 12:01 | 1       |

Lab Sample ID: LCS 880-64507/1-A  
 Matrix: Solid  
 Analysis Batch: 64524

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 64507

| Analyte             | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------------------|-------------|------------|---------------|-------|---|------|-------------|
| Benzene             | 0.100       | 0.1141     |               | mg/Kg |   | 114  | 70 - 130    |
| Toluene             | 0.100       | 0.09752    |               | mg/Kg |   | 98   | 70 - 130    |
| Ethylbenzene        | 0.100       | 0.1096     |               | mg/Kg |   | 110  | 70 - 130    |
| m-Xylene & p-Xylene | 0.200       | 0.2067     |               | mg/Kg |   | 103  | 70 - 130    |
| o-Xylene            | 0.100       | 0.09835    |               | mg/Kg |   | 98   | 70 - 130    |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 103           |               | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 96            |               | 70 - 130 |

Lab Sample ID: LCSD 880-64507/2-A  
 Matrix: Solid  
 Analysis Batch: 64524

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 64507

| Analyte             | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | Limit |
|---------------------|-------------|-------------|----------------|-------|---|------|-------------|-----|-------|
| Benzene             | 0.100       | 0.1044      |                | mg/Kg |   | 104  | 70 - 130    | 9   | 35    |
| Toluene             | 0.100       | 0.09198     |                | mg/Kg |   | 92   | 70 - 130    | 6   | 35    |
| Ethylbenzene        | 0.100       | 0.09293     |                | mg/Kg |   | 93   | 70 - 130    | 16  | 35    |
| m-Xylene & p-Xylene | 0.200       | 0.1806      |                | mg/Kg |   | 90   | 70 - 130    | 13  | 35    |
| o-Xylene            | 0.100       | 0.08517     |                | mg/Kg |   | 85   | 70 - 130    | 14  | 35    |

| Surrogate                   | LCSD %Recovery | LCSD Qualifier | Limits   |
|-----------------------------|----------------|----------------|----------|
| 4-Bromofluorobenzene (Surr) | 116            |                | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 94             |                | 70 - 130 |

Lab Sample ID: 880-34317-A-1-A MS  
 Matrix: Solid  
 Analysis Batch: 64524

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 64507

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Benzene | <0.00202      | U                | 0.100       | 0.1080    |              | mg/Kg |   | 108  | 70 - 130    |
| Toluene | <0.00202      | U                | 0.100       | 0.09138   |              | mg/Kg |   | 91   | 70 - 130    |

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### QC Sample Results

Client: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

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

Lab Sample ID: 880-34317-A-1-A MS  
Matrix: Solid  
Analysis Batch: 64524

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 64507

| Analyte             | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Ethylbenzene        | <0.00202      | U                | 0.100       | 0.09338   |              | mg/Kg |   | 93   | 70 - 130    |
| m-Xylene & p-Xylene | <0.00403      | U                | 0.200       | 0.1900    |              | mg/Kg |   | 95   | 70 - 130    |
| o-Xylene            | <0.00202      | U                | 0.100       | 0.09359   |              | mg/Kg |   | 93   | 70 - 130    |

| Surrogate                   | MS %Recovery | MS Qualifier | MS Limits |
|-----------------------------|--------------|--------------|-----------|
| 4-Bromofluorobenzene (Surr) | 121          |              | 70 - 130  |
| 1,4-Difluorobenzene (Surr)  | 97           |              | 70 - 130  |

Lab Sample ID: 880-34317-A-1-B MSD  
Matrix: Solid  
Analysis Batch: 64524

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 64507

| Analyte             | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Benzene             | <0.00202      | U                | 0.0998      | 0.09229    |               | mg/Kg |   | 92   | 70 - 130    | 16  | 35        |
| Toluene             | <0.00202      | U                | 0.0998      | 0.08541    |               | mg/Kg |   | 86   | 70 - 130    | 7   | 35        |
| Ethylbenzene        | <0.00202      | U                | 0.0998      | 0.08788    |               | mg/Kg |   | 88   | 70 - 130    | 6   | 35        |
| m-Xylene & p-Xylene | <0.00403      | U                | 0.200       | 0.2014     |               | mg/Kg |   | 101  | 70 - 130    | 6   | 35        |
| o-Xylene            | <0.00202      | U                | 0.0998      | 0.09323    |               | mg/Kg |   | 93   | 70 - 130    | 0   | 35        |

| Surrogate                   | MSD %Recovery | MSD Qualifier | MSD Limits |
|-----------------------------|---------------|---------------|------------|
| 4-Bromofluorobenzene (Surr) | 111           |               | 70 - 130   |
| 1,4-Difluorobenzene (Surr)  | 91            |               | 70 - 130   |

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

Lab Sample ID: MB 880-64562/1-A  
Matrix: Solid  
Analysis Batch: 64515

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 64562

| Analyte                              | MB Result | MB Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|-----------|--------------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0     | U            | 50.0 | mg/Kg |   | 10/12/23 13:28 | 10/12/23 19:45 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0     | U            | 50.0 | mg/Kg |   | 10/12/23 13:28 | 10/12/23 19:45 | 1       |
| Oll Range Organics (Over C28-C36)    | <50.0     | U            | 50.0 | mg/Kg |   | 10/12/23 13:28 | 10/12/23 19:45 | 1       |

| Surrogate      | MB %Recovery | MB Qualifier | MB Limits | Prepared       | Analyzed       | Dil Fac |
|----------------|--------------|--------------|-----------|----------------|----------------|---------|
| 1-Chlorooctane | 210          | S1+          | 70 - 130  | 10/12/23 13:28 | 10/12/23 19:45 | 1       |
| o-Terphenyl    | 209          | S1+          | 70 - 130  | 10/12/23 13:28 | 10/12/23 19:45 | 1       |

Lab Sample ID: LCS 880-64562/2-A  
Matrix: Solid  
Analysis Batch: 64515

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 64562

| Analyte                              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|--------------------------------------|-------------|------------|---------------|-------|---|------|-------------|
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 1015       |               | mg/Kg |   | 102  | 70 - 130    |
| Diesel Range Organics (Over C10-C28) | 1000        | 1103       |               | mg/Kg |   | 110  | 70 - 130    |

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### QC Sample Results

Client: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

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

**Lab Sample ID: LCS 880-64562/2-A**  
**Matrix: Solid**  
**Analysis Batch: 64515**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 64562**

| Surrogate      | LCS       |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 142       | S1+       | 70 - 130 |
| o-Terphenyl    | 163       | S1+       | 70 - 130 |

**Lab Sample ID: LCSD 880-64562/3-A**  
**Matrix: Solid**  
**Analysis Batch: 64515**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 64562**

| Analyte                              | Spike Added | LCSD   |           | Unit  | D | %Rec | %Rec     |     | RPD | Limit |
|--------------------------------------|-------------|--------|-----------|-------|---|------|----------|-----|-----|-------|
|                                      |             | Result | Qualifier |       |   |      | Limits   | RPD |     |       |
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 750.3  | *1        | mg/Kg |   | 75   | 70 - 130 | 30  | 20  |       |
| Diesel Range Organics (Over C10-C28) | 1000        | 567.5  | *- *1     | mg/Kg |   | 57   | 70 - 130 | 64  | 20  |       |

| Surrogate      | LCSD      |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 161       | S1+       | 70 - 130 |
| o-Terphenyl    | 173       | S1+       | 70 - 130 |

**Lab Sample ID: 890-5445-A-8-D MS**  
**Matrix: Solid**  
**Analysis Batch: 64515**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 64562**

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MS     |           | Unit  | D | %Rec | %Rec     |     | RPD | Limit |
|--------------------------------------|---------------|------------------|-------------|--------|-----------|-------|---|------|----------|-----|-----|-------|
|                                      |               |                  |             | Result | Qualifier |       |   |      | Limits   | RPD |     |       |
| Gasoline Range Organics (GRO)-C6-C10 | <50.1         | U *1             | 1010        | 1005   |           | mg/Kg |   | 98   | 70 - 130 |     |     |       |
| Diesel Range Organics (Over C10-C28) | 181           | F1 *- *1         | 1010        | 1527   | F1        | mg/Kg |   | 134  | 70 - 130 |     |     |       |

| Surrogate      | MS        |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 157       | S1+       | 70 - 130 |
| o-Terphenyl    | 133       | S1+       | 70 - 130 |

**Lab Sample ID: 890-5445-A-8-E MSD**  
**Matrix: Solid**  
**Analysis Batch: 64515**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 64562**

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MSD    |           | Unit  | D | %Rec | %Rec     |     | RPD | Limit |
|--------------------------------------|---------------|------------------|-------------|--------|-----------|-------|---|------|----------|-----|-----|-------|
|                                      |               |                  |             | Result | Qualifier |       |   |      | Limits   | RPD |     |       |
| Gasoline Range Organics (GRO)-C6-C10 | <50.1         | U *1             | 1010        | 1140   |           | mg/Kg |   | 111  | 70 - 130 | 13  | 20  |       |
| Diesel Range Organics (Over C10-C28) | 181           | F1 *- *1         | 1010        | 1664   | F1        | mg/Kg |   | 147  | 70 - 130 | 9   | 20  |       |

| Surrogate      | MSD       |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 169       | S1+       | 70 - 130 |
| o-Terphenyl    | 141       | S1+       | 70 - 130 |

### QC Sample Results

Client: Ensolum  
 Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
 SDG: 03C1558276

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-64547/1-A  
 Matrix: Solid  
 Analysis Batch: 64549

Client Sample ID: Method Blank  
 Prep Type: Soluble

| Analyte  | MB Result | MB Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|-----------|--------------|------|-------|---|----------|----------------|---------|
| Chloride | <5.00     | U            | 5.00 | mg/Kg |   |          | 10/12/23 11:57 | 1       |

Lab Sample ID: LCS 880-64547/2-A  
 Matrix: Solid  
 Analysis Batch: 64549

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|-------|---|------|-------------|
| Chloride | 250         | 250.3      |               | mg/Kg |   | 100  | 90 - 110    |

Lab Sample ID: LCSD 880-64547/3-A  
 Matrix: Solid  
 Analysis Batch: 64549

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         | 250.2       |                | mg/Kg |   | 100  | 90 - 110    | 0   | 20        |

Lab Sample ID: 880-34361-A-1-B MS  
 Matrix: Solid  
 Analysis Batch: 64549

Client Sample ID: Matrix Spike  
 Prep Type: Soluble

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Chloride | 458           |                  | 251         | 699.6     |              | mg/Kg |   | 97   | 90 - 110    |

Lab Sample ID: 880-34361-A-1-C MSD  
 Matrix: Solid  
 Analysis Batch: 64549

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Soluble

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Chloride | 458           |                  | 251         | 698.5      |               | mg/Kg |   | 96   | 90 - 110    | 0   | 20        |

Lab Sample ID: MB 880-64436/1-A  
 Matrix: Solid  
 Analysis Batch: 64692

Client Sample ID: Method Blank  
 Prep Type: Soluble

| Analyte  | MB Result | MB Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|-----------|--------------|------|-------|---|----------|----------------|---------|
| Chloride | <5.00     | U            | 5.00 | mg/Kg |   |          | 10/13/23 14:15 | 1       |

Lab Sample ID: LCS 880-64436/2-A  
 Matrix: Solid  
 Analysis Batch: 64692

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|-------|---|------|-------------|
| Chloride | 250         | 250.7      |               | mg/Kg |   | 100  | 90 - 110    |

Lab Sample ID: LCSD 880-64436/3-A  
 Matrix: Solid  
 Analysis Batch: 64692

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         | 250.7       |                | mg/Kg |   | 100  | 90 - 110    | 0   | 20        |

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### QC Sample Results

Client: Ensolum  
 Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
 SDG: 03C1558276

**Method: 300.0 - Anions, Ion Chromatography**

**Lab Sample ID: 880-34268-A-4-B MS**  
**Matrix: Solid**  
**Analysis Batch: 64692**

**Client Sample ID: Matrix Spike**  
**Prep Type: Soluble**

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Chloride | 36900         |                  | 12500       | 48680     |              | mg/Kg |   | 94   | 90 - 110    |

**Lab Sample ID: 880-34268-A-4-C MSD**  
**Matrix: Solid**  
**Analysis Batch: 64692**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Soluble**

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Chloride | 36900         |                  | 12500       | 48650      |               | mg/Kg |   | 94   | 90 - 110    | 0   | 20        |

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### QC Association Summary

Client: Ensolum  
 Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
 SDG: 03C1558276

#### GC VOA

##### Prep Batch: 64507

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 890-5432-1          | BH01                   | Total/NA  | Solid  | 5035   |            |
| 890-5432-2          | BH02                   | Total/NA  | Solid  | 5035   |            |
| 890-5432-3          | BH03                   | Total/NA  | Solid  | 5035   |            |
| 890-5432-4          | BH04                   | Total/NA  | Solid  | 5035   |            |
| MB 880-64507/5-A    | Method Blank           | Total/NA  | Solid  | 5035   |            |
| LCS 880-64507/1-A   | Lab Control Sample     | Total/NA  | Solid  | 5035   |            |
| LCS 880-64507/2-A   | Lab Control Sample Dup | Total/NA  | Solid  | 5035   |            |
| 880-34317-A-1-A MS  | Matrix Spike           | Total/NA  | Solid  | 5035   |            |
| 880-34317-A-1-B MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 5035   |            |

##### Analysis Batch: 64524

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 890-5432-1          | BH01                   | Total/NA  | Solid  | 8021B  | 64507      |
| 890-5432-2          | BH02                   | Total/NA  | Solid  | 8021B  | 64507      |
| 890-5432-3          | BH03                   | Total/NA  | Solid  | 8021B  | 64507      |
| 890-5432-4          | BH04                   | Total/NA  | Solid  | 8021B  | 64507      |
| MB 880-64507/5-A    | Method Blank           | Total/NA  | Solid  | 8021B  | 64507      |
| LCS 880-64507/1-A   | Lab Control Sample     | Total/NA  | Solid  | 8021B  | 64507      |
| LCS 880-64507/2-A   | Lab Control Sample Dup | Total/NA  | Solid  | 8021B  | 64507      |
| 880-34317-A-1-A MS  | Matrix Spike           | Total/NA  | Solid  | 8021B  | 64507      |
| 880-34317-A-1-B MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8021B  | 64507      |

##### Analysis Batch: 64670

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method     | Prep Batch |
|---------------|------------------|-----------|--------|------------|------------|
| 890-5432-1    | BH01             | Total/NA  | Solid  | Total BTEX |            |
| 890-5432-2    | BH02             | Total/NA  | Solid  | Total BTEX |            |
| 890-5432-3    | BH03             | Total/NA  | Solid  | Total BTEX |            |
| 890-5432-4    | BH04             | Total/NA  | Solid  | Total BTEX |            |

#### GC Semi VOA

##### Analysis Batch: 64515

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|--------------------|------------------------|-----------|--------|----------|------------|
| 890-5432-1         | BH01                   | Total/NA  | Solid  | 8015B NM | 64562      |
| 890-5432-2         | BH02                   | Total/NA  | Solid  | 8015B NM | 64562      |
| 890-5432-3         | BH03                   | Total/NA  | Solid  | 8015B NM | 64562      |
| 890-5432-4         | BH04                   | Total/NA  | Solid  | 8015B NM | 64562      |
| MB 880-64562/1-A   | Method Blank           | Total/NA  | Solid  | 8015B NM | 64562      |
| LCS 880-64562/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8015B NM | 64562      |
| LCS 880-64562/3-A  | Lab Control Sample Dup | Total/NA  | Solid  | 8015B NM | 64562      |
| 890-5445-A-8-D MS  | Matrix Spike           | Total/NA  | Solid  | 8015B NM | 64562      |
| 890-5445-A-8-E MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015B NM | 64562      |

##### Prep Batch: 64562

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method      | Prep Batch |
|-------------------|--------------------|-----------|--------|-------------|------------|
| 890-5432-1        | BH01               | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5432-2        | BH02               | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5432-3        | BH03               | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5432-4        | BH04               | Total/NA  | Solid  | 8015NM Prep |            |
| MB 880-64562/1-A  | Method Blank       | Total/NA  | Solid  | 8015NM Prep |            |
| LCS 880-64562/2-A | Lab Control Sample | Total/NA  | Solid  | 8015NM Prep |            |

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## QC Association Summary

Client: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

## GC Semi VOA (Continued)

## Prep Batch: 64562 (Continued)

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method      | Prep Batch |
|--------------------|------------------------|-----------|--------|-------------|------------|
| LCSD 880-64562/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5445-A-8-D MS  | Matrix Spike           | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5445-A-8-E MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015NM Prep |            |

## Analysis Batch: 64662

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method  | Prep Batch |
|---------------|------------------|-----------|--------|---------|------------|
| 890-5432-1    | BH01             | Total/NA  | Solid  | 8015 NM |            |
| 890-5432-2    | BH02             | Total/NA  | Solid  | 8015 NM |            |
| 890-5432-3    | BH03             | Total/NA  | Solid  | 8015 NM |            |
| 890-5432-4    | BH04             | Total/NA  | Solid  | 8015 NM |            |

## HPLC/IC

## Leach Batch: 64436

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|---------------------|------------------------|-----------|--------|----------|------------|
| 890-5432-1          | BH01                   | Soluble   | Solid  | DI Leach |            |
| 890-5432-2          | BH02                   | Soluble   | Solid  | DI Leach |            |
| 890-5432-3          | BH03                   | Soluble   | Solid  | DI Leach |            |
| MB 880-64436/1-A    | Method Blank           | Soluble   | Solid  | DI Leach |            |
| LCS 880-64436/2-A   | Lab Control Sample     | Soluble   | Solid  | DI Leach |            |
| LCSD 880-64436/3-A  | Lab Control Sample Dup | Soluble   | Solid  | DI Leach |            |
| 880-34268-A-4-B MS  | Matrix Spike           | Soluble   | Solid  | DI Leach |            |
| 880-34268-A-4-C MSD | Matrix Spike Duplicate | Soluble   | Solid  | DI Leach |            |

## Leach Batch: 64547

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|---------------------|------------------------|-----------|--------|----------|------------|
| 890-5432-4          | BH04                   | Soluble   | Solid  | DI Leach |            |
| MB 880-64547/1-A    | Method Blank           | Soluble   | Solid  | DI Leach |            |
| LCS 880-64547/2-A   | Lab Control Sample     | Soluble   | Solid  | DI Leach |            |
| LCSD 880-64547/3-A  | Lab Control Sample Dup | Soluble   | Solid  | DI Leach |            |
| 880-34361-A-1-B MS  | Matrix Spike           | Soluble   | Solid  | DI Leach |            |
| 880-34361-A-1-C MSD | Matrix Spike Duplicate | Soluble   | Solid  | DI Leach |            |

## Analysis Batch: 64549

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 890-5432-4          | BH04                   | Soluble   | Solid  | 300.0  | 64547      |
| MB 880-64547/1-A    | Method Blank           | Soluble   | Solid  | 300.0  | 64547      |
| LCS 880-64547/2-A   | Lab Control Sample     | Soluble   | Solid  | 300.0  | 64547      |
| LCSD 880-64547/3-A  | Lab Control Sample Dup | Soluble   | Solid  | 300.0  | 64547      |
| 880-34361-A-1-B MS  | Matrix Spike           | Soluble   | Solid  | 300.0  | 64547      |
| 880-34361-A-1-C MSD | Matrix Spike Duplicate | Soluble   | Solid  | 300.0  | 64547      |

## Analysis Batch: 64692

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-5432-1         | BH01                   | Soluble   | Solid  | 300.0  | 64436      |
| 890-5432-2         | BH02                   | Soluble   | Solid  | 300.0  | 64436      |
| 890-5432-3         | BH03                   | Soluble   | Solid  | 300.0  | 64436      |
| MB 880-64436/1-A   | Method Blank           | Soluble   | Solid  | 300.0  | 64436      |
| LCS 880-64436/2-A  | Lab Control Sample     | Soluble   | Solid  | 300.0  | 64436      |
| LCSD 880-64436/3-A | Lab Control Sample Dup | Soluble   | Solid  | 300.0  | 64436      |
| 880-34268-A-4-B MS | Matrix Spike           | Soluble   | Solid  | 300.0  | 64436      |

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### QC Association Summary

Client: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

#### HPLC/IC (Continued)

#### Analysis Batch: 64692 (Continued)

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 880-34268-A-4-C MSD | Matrix Spike Duplicate | Soluble   | Solid  | 300.0  | 64436      |

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### Lab Chronicle

Client: Ensolum  
 Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
 SDG: 03C1558276

**Client Sample ID: BH01**

**Lab Sample ID: 890-5432-1**

Date Collected: 10/10/23 10:00

Matrix: Solid

Date Received: 10/10/23 15:42

| 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         | 64507        | 10/11/23 16:59       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64524        | 10/12/23 17:25       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64670        | 10/12/23 17:25       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64662        | 10/12/23 22:41       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.98 g         | 10 mL        | 64562        | 10/12/23 13:28       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64515        | 10/12/23 22:41       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.02 g         | 50 mL        | 64436        | 10/12/23 12:00       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          | 50 mL          | 50 mL        | 64692        | 10/13/23 16:31       | CH      | EET MID |

**Client Sample ID: BH02**

**Lab Sample ID: 890-5432-2**

Date Collected: 10/10/23 11:00

Matrix: Solid

Date Received: 10/10/23 15:42

| 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         | 64507        | 10/11/23 16:59       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64524        | 10/12/23 17:46       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64670        | 10/12/23 17:46       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64662        | 10/12/23 23:03       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.91 g         | 10 mL        | 64562        | 10/12/23 13:28       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64515        | 10/12/23 23:03       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.03 g         | 50 mL        | 64436        | 10/12/23 12:00       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 10         | 50 mL          | 50 mL        | 64692        | 10/13/23 16:36       | CH      | EET MID |

**Client Sample ID: BH03**

**Lab Sample ID: 890-5432-3**

Date Collected: 10/10/23 11:35

Matrix: Solid

Date Received: 10/10/23 15:42

| 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         | 64507        | 10/11/23 16:59       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64524        | 10/12/23 18:06       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64670        | 10/12/23 18:06       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64662        | 10/12/23 23:25       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.03 g        | 10 mL        | 64562        | 10/12/23 13:28       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64515        | 10/12/23 23:25       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5 g            | 50 mL        | 64436        | 10/12/23 12:00       | AG      | EET MID |
| Soluble   | Analysis   | 300.0        |     | 10         | 50 mL          | 50 mL        | 64692        | 10/13/23 16:42       | CH      | EET MID |

**Client Sample ID: BH04**

**Lab Sample ID: 890-5432-4**

Date Collected: 10/10/23 11:55

Matrix: Solid

Date Received: 10/10/23 15:42

| 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         | 64507        | 10/11/23 16:59       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64524        | 10/12/23 18:27       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64670        | 10/12/23 18:27       | SM      | EET MID |

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### Lab Chronicle

Client: Ensolum  
 Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
 SDG: 03C1558276

**Client Sample ID: BH04**

**Lab Sample ID: 890-5432-4**

Date Collected: 10/10/23 11:55

Matrix: Solid

Date Received: 10/10/23 15:42

| 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          |                |              | 64662        | 10/12/23 23:47       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.06 g        | 10 mL        | 64562        | 10/12/23 13:28       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64515        | 10/12/23 23:47       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5 g            | 50 mL        | 64547        | 10/12/23 12:20       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          | 50 mL          | 50 mL        | 64549        | 10/12/23 14:36       | CH      | EET MID |

**Laboratory References:**

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

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### Accreditation/Certification Summary

Client: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

#### 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 |

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### Method Summary

Client: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

| 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: Ensolum  
Project/Site: JAMES RANCH UNIT 21 RISER

Job ID: 890-5432-1  
SDG: 03C1558276

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Depth |
|---------------|------------------|--------|----------------|----------------|-------|
| 890-5432-1    | BH01             | Solid  | 10/10/23 10:00 | 10/10/23 15:42 | 1'    |
| 890-5432-2    | BH02             | Solid  | 10/10/23 11:00 | 10/10/23 15:42 | 4'    |
| 890-5432-3    | BH03             | Solid  | 10/10/23 11:35 | 10/10/23 15:42 | 4'    |
| 890-5432-4    | BH04             | Solid  | 10/10/23 11:55 | 10/10/23 15:42 | 1'    |

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
 El Paso, TX (915) 865-3445, Lubbock, TX (806) 794-1296  
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Environment Testing



Work Order No:

www.xenco.com Page 1 of 1

|                  |                         |                         |                              |
|------------------|-------------------------|-------------------------|------------------------------|
| Project Manager: | Ben Belli               | Bill to: (if different) | Garrett Green                |
| Company Name:    | Ensolum, LLC            | Company Name:           | XTO Energy                   |
| Address:         | 3122 National Parks Hwy | Address:                | 3101 E. Greer St             |
| City, State ZIP: | Carlsbad, NM 88220      | City, State ZIP:        | Carlsbad, NM 88220           |
| Phone:           | 989-854-0852            | Email:                  | Garrett.Green@ExxonMobil.com |

|                   |                           |   |        |
|-------------------|---------------------------|---|--------|
| Project Name:     | James Ranch Unit 21 Riser | Turn Around   |        |
| Project Number:   | 0301558276                | <input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush |        |
| Project Location: | 32.35503, -103.84582      | Due Date:   | 5 days |
| Sampler's Name:   | Mariana O'Dell            | TAT starts the day received by the lab, if received by 4:30pm             |        |
| PO #:             |                           |   |        |

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/Comp | Parameters |           | Pres. Code |
|-----------------------|--------|--------------|--------------|-------|-----------|------------|-----------|------------|
|                       |        |              |              |       |           | Yes        | No        |            |
| BH01                  | S      | 10/10/23     | 10:00        | 1'    | G         | X          | TPH       |            |
| BH02                  | S      |              | 11:00        | 4'    |           |            | Chlorides |            |
| BH03                  | S      |              | 11:35        | 4'    |           |            | BTEX      |            |
| BH04                  | S      |              | 11:55        | 1'    |           |            |           |            |



890-5432 Chain of Custody

Sample Comments: Incident #: Napp 2322742848  
Cost Center: 1081711001  
Ben Belli: bbelli@ensolum.com

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Tl Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

|                              |                          |             |                              |                          |           |
|------------------------------|--------------------------|-------------|------------------------------|--------------------------|-----------|
| Relinquished by: (Signature) | Received by: (Signature) | Date/Time   | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
| <i>Mariana O'Dell</i>        | <i>u...</i>              | 10/10 15:42 |                              |                          |           |

Revised Date: 08/25/2020 Rev. 2020.2



### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5432-1

SDG Number: 03C1558276

**Login Number: 5432**

**List Number: 1**

**Creator: Bruns, Shannon**

**List Source: Eurofins Carlsbad**

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

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### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5432-1

SDG Number: 03C1558276

**Login Number: 5432**

**List Number: 2**

**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

**List Creation: 10/12/23 10:38 AM**

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

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Tacoma Morrissey  
 Ensolum  
 601 N. Marienfeld St.  
 Suite 400  
 Midland, Texas 79701

Generated 10/18/2023 10:21:28 AM

## JOB DESCRIPTION

James Ranch Unit 21 Riser  
 SDG NUMBER 03C1558276

## JOB NUMBER

890-5454-1

Eurofins Carlsbad  
 1089 N Canal St.  
 Carlsbad NM 88220



# Eurofins Carlsbad

## 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



Generated  
10/18/2023 10:21:28 AM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

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Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Laboratory Job ID: 890-5454-1  
SDG: 03C1558276

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## Definitions/Glossary

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

## Qualifiers

## GC VOA

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

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| α              | 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: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

**Job ID: 890-5454-1****Laboratory: Eurofins Carlsbad****Narrative**

**Job Narrative**  
**890-5454-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**

The samples were received on 10/12/2023 4:14 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-5454-1), FS08 (890-5454-2), SW02 (890-5454-3), FS02 (890-5454-4), FS03 (890-5454-5), FS04 (890-5454-6), FS05 (890-5454-7), FS06 (890-5454-8), FS07 (890-5454-9), FS09 (890-5454-10), FS10 (890-5454-11), FS11 (890-5454-12), SW01 (890-5454-13) and SW03 (890-5454-14).

**GC VOA**

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS02 (890-5454-4) and FS04 (890-5454-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-64759 recovered under the lower control limit for Toluene. The samples associated with this CCV were ran within 12 hours of passing CCV; therefore, the data have been reported.

(CCV 880-64759/33)

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

**GC Semi VOA**

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-64784 and analytical batch 880-64757 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (880-34436-A-21-A) and (880-34436-A-21-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: SW02 (890-5454-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-64793 and 880-64793 and analytical batch 880-64900 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.

### Case Narrative

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

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**Job ID: 890-5454-1 (Continued)**

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**Laboratory: Eurofins Carlsbad (Continued)**

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: FS01**

**Lab Sample ID: 890-5454-1**

Date Collected: 10/11/23 15:00

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result         | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00201       | U         | 0.00201 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 13:45 | 1       |
| Toluene             | <0.00201       | U         | 0.00201 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 13:45 | 1       |
| Ethylbenzene        | <0.00201       | U         | 0.00201 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 13:45 | 1       |
| m-Xylene & p-Xylene | <0.00402       | U         | 0.00402 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 13:45 | 1       |
| <b>o-Xylene</b>     | <b>0.00354</b> |           | 0.00201 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 13:45 | 1       |
| Xylenes, Total      | <0.00402       | U         | 0.00402 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 13:45 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 95        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 13:45 | 1       |
| 1,4-Difluorobenzene (Surr)  | 80        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 13:45 | 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 |   |          | 10/16/23 13:45 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.5  | U         | 50.5 | mg/Kg |   |          | 10/16/23 19:01 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 09:46 | 10/16/23 19:01 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 09:46 | 10/16/23 19:01 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 09:46 | 10/16/23 19:01 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 130       |           | 70 - 130 | 10/16/23 09:46 | 10/16/23 19:01 | 1       |
| o-Terphenyl    | 130       |           | 70 - 130 | 10/16/23 09:46 | 10/16/23 19:01 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte         | Result     | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------|------------|-----------|------|-------|---|----------|----------------|---------|
| <b>Chloride</b> | <b>150</b> |           | 5.01 | mg/Kg |   |          | 10/16/23 22:36 | 1       |

**Client Sample ID: FS08**

**Lab Sample ID: 890-5454-2**

Date Collected: 10/11/23 10:25

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:05 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:05 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:05 | 1       |
| m-Xylene & p-Xylene | <0.00401 | U         | 0.00401 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:05 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:05 | 1       |
| Xylenes, Total      | <0.00401 | U         | 0.00401 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:05 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 92        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 14:05 | 1       |

Eurofins Carlsbad

### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: FS08**

**Lab Sample ID: 890-5454-2**

Date Collected: 10/11/23 10:25

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)**

| Surrogate                  | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,4-Difluorobenzene (Surr) | 71        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 14:05 | 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 |   |          | 10/16/23 14:05 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.0  | U         | 50.0 | mg/Kg |   |          | 10/16/23 19:23 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 09:46 | 10/16/23 19:23 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 09:46 | 10/16/23 19:23 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 09:46 | 10/16/23 19:23 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 84        |           | 70 - 130 | 10/16/23 09:46 | 10/16/23 19:23 | 1       |
| o-Terphenyl    | 83        |           | 70 - 130 | 10/16/23 09:46 | 10/16/23 19:23 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 159    |           | 4.97 | mg/Kg |   |          | 10/16/23 22:42 | 1       |

**Client Sample ID: SW02**

**Lab Sample ID: 890-5454-3**

Date Collected: 10/11/23 10:45

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 0-1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:26 | 1       |
| Toluene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:26 | 1       |
| Ethylbenzene        | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:26 | 1       |
| m-Xylene & p-Xylene | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:26 | 1       |
| o-Xylene            | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:26 | 1       |
| Xylenes, Total      | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:26 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 93        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 14:26 | 1       |
| 1,4-Difluorobenzene (Surr)  | 79        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 14:26 | 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 |   |          | 10/16/23 14:26 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.6  | U         | 49.6 | mg/Kg |   |          | 10/16/23 19:45 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: SW02**

**Lab Sample ID: 890-5454-3**

Date Collected: 10/11/23 10:45

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 0-1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.6     | U         | 49.6     | mg/Kg |   | 10/16/23 09:46 | 10/16/23 19:45 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.6     | U         | 49.6     | mg/Kg |   | 10/16/23 09:46 | 10/16/23 19:45 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.6     | U         | 49.6     | mg/Kg |   | 10/16/23 09:46 | 10/16/23 19:45 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 132       | S1+       | 70 - 130 |       |   | 10/16/23 09:46 | 10/16/23 19:45 | 1       |
| o-Terphenyl                          | 131       | S1+       | 70 - 130 |       |   | 10/16/23 09:46 | 10/16/23 19:45 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 168    |           | 4.96 | mg/Kg |   |          | 10/16/23 22:49 | 1       |

**Client Sample ID: FS02**

**Lab Sample ID: 890-5454-4**

Date Collected: 10/12/23 09:20

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte                     | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Benzene                     | <0.00198  | U         | 0.00198  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:46 | 1       |
| Toluene                     | <0.00198  | U         | 0.00198  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:46 | 1       |
| Ethylbenzene                | <0.00198  | U         | 0.00198  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:46 | 1       |
| m-Xylene & p-Xylene         | <0.00396  | U         | 0.00396  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:46 | 1       |
| o-Xylene                    | <0.00198  | U         | 0.00198  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:46 | 1       |
| Xylenes, Total              | <0.00396  | U         | 0.00396  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 14:46 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 92        |           | 70 - 130 |       |   | 10/16/23 08:37 | 10/16/23 14:46 | 1       |
| 1,4-Difluorobenzene (Surr)  | 65        | S1-       | 70 - 130 |       |   | 10/16/23 08:37 | 10/16/23 14:46 | 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 |   |          | 10/16/23 14:46 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.9  | U         | 49.9 | mg/Kg |   |          | 10/16/23 15:49 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9     | U         | 49.9     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 15:49 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.9     | U         | 49.9     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 15:49 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.9     | U         | 49.9     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 15:49 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 74        |           | 70 - 130 |       |   | 10/16/23 10:59 | 10/16/23 15:49 | 1       |
| o-Terphenyl                          | 80        |           | 70 - 130 |       |   | 10/16/23 10:59 | 10/16/23 15:49 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: FS02**

**Lab Sample ID: 890-5454-4**

Date Collected: 10/12/23 09:20  
 Date Received: 10/12/23 16:14  
 Sample Depth: 1

Matrix: Solid

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 291    |           | 5.03 | mg/Kg |   |          | 10/16/23 22:55 | 1       |

**Client Sample ID: FS03**

**Lab Sample ID: 890-5454-5**

Date Collected: 10/12/23 09:25  
 Date Received: 10/12/23 16:14  
 Sample Depth: 1

Matrix: Solid

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte                     | Result           | Qualifier        | RL            | Unit  | D | Prepared        | Analyzed        | Dil Fac        |
|-----------------------------|------------------|------------------|---------------|-------|---|-----------------|-----------------|----------------|
| Benzene                     | <0.00199         | U                | 0.00199       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 16:13  | 1              |
| Toluene                     | <0.00199         | U                | 0.00199       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 16:13  | 1              |
| Ethylbenzene                | <0.00199         | U                | 0.00199       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 16:13  | 1              |
| m-Xylene & p-Xylene         | <0.00398         | U                | 0.00398       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 16:13  | 1              |
| o-Xylene                    | <0.00199         | U                | 0.00199       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 16:13  | 1              |
| Xylenes, Total              | <0.00398         | U                | 0.00398       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 16:13  | 1              |
| <b>Surrogate</b>            | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 4-Bromofluorobenzene (Surr) | 90               |                  | 70 - 130      |       |   | 10/16/23 08:37  | 10/16/23 16:13  | 1              |
| 1,4-Difluorobenzene (Surr)  | 80               |                  | 70 - 130      |       |   | 10/16/23 08:37  | 10/16/23 16:13  | 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 |   |          | 10/16/23 16:13 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.9  | U         | 49.9 | mg/Kg |   |          | 10/16/23 16:13 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result           | Qualifier        | RL            | Unit  | D | Prepared        | Analyzed        | Dil Fac        |
|--------------------------------------|------------------|------------------|---------------|-------|---|-----------------|-----------------|----------------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9            | U                | 49.9          | mg/Kg |   | 10/16/23 10:59  | 10/16/23 16:13  | 1              |
| Diesel Range Organics (Over C10-C28) | <49.9            | U                | 49.9          | mg/Kg |   | 10/16/23 10:59  | 10/16/23 16:13  | 1              |
| Oll Range Organics (Over C28-C36)    | <49.9            | U                | 49.9          | mg/Kg |   | 10/16/23 10:59  | 10/16/23 16:13  | 1              |
| <b>Surrogate</b>                     | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 1-Chlorooctane                       | 75               |                  | 70 - 130      |       |   | 10/16/23 10:59  | 10/16/23 16:13  | 1              |
| o-Terphenyl                          | 82               |                  | 70 - 130      |       |   | 10/16/23 10:59  | 10/16/23 16:13  | 1              |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 111    |           | 5.05 | mg/Kg |   |          | 10/16/23 23:02 | 1       |

### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: FS04**

**Lab Sample ID: 890-5454-6**

Date Collected: 10/12/23 09:30

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:33 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:33 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:33 | 1       |
| m-Xylene & p-Xylene | <0.00399 | U         | 0.00399 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:33 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:33 | 1       |
| Xylenes, Total      | <0.00399 | U         | 0.00399 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:33 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 98        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 16:33 | 1       |
| 1,4-Difluorobenzene (Surr)  | 60        | S1-       | 70 - 130 | 10/16/23 08:37 | 10/16/23 16:33 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00399 | U         | 0.00399 | mg/Kg |   |          | 10/16/23 16:33 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.6  | U         | 49.6 | mg/Kg |   |          | 10/16/23 16:37 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.6  | U         | 49.6 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 16:37 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.6  | U         | 49.6 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 16:37 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.6  | U         | 49.6 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 16:37 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 77        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 16:37 | 1       |
| o-Terphenyl    | 83        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 16:37 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 195    |           | 5.04 | mg/Kg |   |          | 10/16/23 23:09 | 1       |

**Client Sample ID: FS05**

**Lab Sample ID: 890-5454-7**

Date Collected: 10/12/23 09:35

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:54 | 1       |
| Toluene             | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:54 | 1       |
| Ethylbenzene        | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:54 | 1       |
| m-Xylene & p-Xylene | <0.00402 | U         | 0.00402 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:54 | 1       |
| o-Xylene            | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:54 | 1       |
| Xylenes, Total      | <0.00402 | U         | 0.00402 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 16:54 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 109       |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 16:54 | 1       |

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### Client Sample Results

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

**Client Sample ID: FS05**

**Lab Sample ID: 890-5454-7**

Date Collected: 10/12/23 09:35

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)**

| Surrogate                  | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,4-Difluorobenzene (Surr) | 118       |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 16:54 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00402 | U         | 0.00402 | mg/Kg |   |          | 10/16/23 16:54 | 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 |   |          | 10/16/23 17:01 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.3  | U         | 50.3 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 17:01 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.3  | U         | 50.3 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 17:01 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.3  | U         | 50.3 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 17:01 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 71        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 17:01 | 1       |
| o-Terphenyl    | 79        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 17:01 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 291    |           | 4.98 | mg/Kg |   |          | 10/16/23 23:15 | 1       |

**Client Sample ID: FS06**

**Lab Sample ID: 890-5454-8**

Date Collected: 10/12/23 09:40

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:14 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:14 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:14 | 1       |
| m-Xylene & p-Xylene | <0.00401 | U         | 0.00401 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:14 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:14 | 1       |
| Xylenes, Total      | <0.00401 | U         | 0.00401 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:14 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 82        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 17:14 | 1       |
| 1,4-Difluorobenzene (Surr)  | 96        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 17:14 | 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 |   |          | 10/16/23 17:14 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.5  | U         | 50.5 | mg/Kg |   |          | 10/16/23 17:25 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: FS06**

**Lab Sample ID: 890-5454-8**

Date Collected: 10/12/23 09:40

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 17:25 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 17:25 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 17:25 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 75        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 17:25 | 1       |
| o-Terphenyl    | 82        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 17:25 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 285    |           | 5.03 | mg/Kg |   |          | 10/17/23 20:45 | 1       |

**Client Sample ID: FS07**

**Lab Sample ID: 890-5454-9**

Date Collected: 10/12/23 10:15

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:35 | 1       |
| Toluene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:35 | 1       |
| Ethylbenzene        | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:35 | 1       |
| m-Xylene & p-Xylene | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:35 | 1       |
| o-Xylene            | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:35 | 1       |
| Xylenes, Total      | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 17:35 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 82        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 17:35 | 1       |
| 1,4-Difluorobenzene (Surr)  | 94        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 17:35 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00398 | U         | 0.00398 | mg/Kg |   |          | 10/16/23 17:35 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.5  | U         | 50.5 | mg/Kg |   |          | 10/16/23 18:11 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 18:11 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 18:11 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 18:11 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 82        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 18:11 | 1       |
| o-Terphenyl    | 87        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 18:11 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: FS07**

**Lab Sample ID: 890-5454-9**

Date Collected: 10/12/23 10:15  
 Date Received: 10/12/23 16:14  
 Sample Depth: 1

Matrix: Solid

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 329    |           | 5.03 | mg/Kg |   |          | 10/17/23 20:52 | 1       |

**Client Sample ID: FS09**

**Lab Sample ID: 890-5454-10**

Date Collected: 10/12/23 14:05  
 Date Received: 10/12/23 16:14  
 Sample Depth: 1

Matrix: Solid

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte                     | Result           | Qualifier        | RL            | Unit  | D | Prepared        | Analyzed        | Dil Fac        |
|-----------------------------|------------------|------------------|---------------|-------|---|-----------------|-----------------|----------------|
| Benzene                     | <0.00199         | U                | 0.00199       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 17:56  | 1              |
| Toluene                     | <0.00199         | U                | 0.00199       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 17:56  | 1              |
| Ethylbenzene                | <0.00199         | U                | 0.00199       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 17:56  | 1              |
| m-Xylene & p-Xylene         | <0.00398         | U                | 0.00398       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 17:56  | 1              |
| o-Xylene                    | <0.00199         | U                | 0.00199       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 17:56  | 1              |
| Xylenes, Total              | <0.00398         | U                | 0.00398       | mg/Kg |   | 10/16/23 08:37  | 10/16/23 17:56  | 1              |
| <b>Surrogate</b>            | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 4-Bromofluorobenzene (Surr) | 89               |                  | 70 - 130      |       |   | 10/16/23 08:37  | 10/16/23 17:56  | 1              |
| 1,4-Difluorobenzene (Surr)  | 84               |                  | 70 - 130      |       |   | 10/16/23 08:37  | 10/16/23 17:56  | 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 |   |          | 10/16/23 17:56 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.0  | U         | 50.0 | mg/Kg |   |          | 10/16/23 18:35 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result           | Qualifier        | RL            | Unit  | D | Prepared        | Analyzed        | Dil Fac        |
|--------------------------------------|------------------|------------------|---------------|-------|---|-----------------|-----------------|----------------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0            | U                | 50.0          | mg/Kg |   | 10/16/23 10:59  | 10/16/23 18:35  | 1              |
| Diesel Range Organics (Over C10-C28) | <50.0            | U                | 50.0          | mg/Kg |   | 10/16/23 10:59  | 10/16/23 18:35  | 1              |
| Oll Range Organics (Over C28-C36)    | <50.0            | U                | 50.0          | mg/Kg |   | 10/16/23 10:59  | 10/16/23 18:35  | 1              |
| <b>Surrogate</b>                     | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 1-Chlorooctane                       | 75               |                  | 70 - 130      |       |   | 10/16/23 10:59  | 10/16/23 18:35  | 1              |
| o-Terphenyl                          | 79               |                  | 70 - 130      |       |   | 10/16/23 10:59  | 10/16/23 18:35  | 1              |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 105    |           | 5.05 | mg/Kg |   |          | 10/17/23 20:58 | 1       |

### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: FS10**

**Lab Sample ID: 890-5454-11**

Date Collected: 10/12/23 14:10

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:16 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:16 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:16 | 1       |
| m-Xylene & p-Xylene | <0.00399 | U         | 0.00399 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:16 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:16 | 1       |
| Xylenes, Total      | <0.00399 | U         | 0.00399 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:16 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 82        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 18:16 | 1       |
| 1,4-Difluorobenzene (Surr)  | 96        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 18:16 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00399 | U         | 0.00399 | mg/Kg |   |          | 10/16/23 18:16 | 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 |   |          | 10/16/23 18:59 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9  | U         | 49.9 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 18:59 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.9  | U         | 49.9 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 18:59 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.9  | U         | 49.9 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 18:59 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 77        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 18:59 | 1       |
| o-Terphenyl    | 80        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 18:59 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 112    |           | 5.02 | mg/Kg |   |          | 10/17/23 21:05 | 1       |

**Client Sample ID: FS11**

**Lab Sample ID: 890-5454-12**

Date Collected: 10/12/23 14:15

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00198 | U         | 0.00198 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:37 | 1       |
| Toluene             | <0.00198 | U         | 0.00198 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:37 | 1       |
| Ethylbenzene        | <0.00198 | U         | 0.00198 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:37 | 1       |
| m-Xylene & p-Xylene | <0.00396 | U         | 0.00396 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:37 | 1       |
| o-Xylene            | <0.00198 | U         | 0.00198 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:37 | 1       |
| Xylenes, Total      | <0.00396 | U         | 0.00396 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:37 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 80        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 18:37 | 1       |

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### Client Sample Results

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

**Client Sample ID: FS11**

**Lab Sample ID: 890-5454-12**

Date Collected: 10/12/23 14:15

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)**

| Surrogate                  | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,4-Difluorobenzene (Surr) | 72        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 18:37 | 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 |   |          | 10/16/23 18:37 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.9  | U         | 49.9 | mg/Kg |   |          | 10/16/23 19:22 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9  | U         | 49.9 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 19:22 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.9  | U         | 49.9 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 19:22 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.9  | U         | 49.9 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 19:22 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 73        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 19:22 | 1       |
| o-Terphenyl    | 79        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 19:22 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 149    |           | 4.98 | mg/Kg |   |          | 10/17/23 21:12 | 1       |

**Client Sample ID: SW01**

**Lab Sample ID: 890-5454-13**

Date Collected: 10/12/23 10:25

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 0-1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:57 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:57 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:57 | 1       |
| m-Xylene & p-Xylene | <0.00401 | U         | 0.00401 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:57 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:57 | 1       |
| Xylenes, Total      | <0.00401 | U         | 0.00401 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 18:57 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 97        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 18:57 | 1       |
| 1,4-Difluorobenzene (Surr)  | 74        |           | 70 - 130 | 10/16/23 08:37 | 10/16/23 18:57 | 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 |   |          | 10/16/23 18:57 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.0  | U         | 50.0 | mg/Kg |   |          | 10/16/23 19:45 | 1       |

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### Client Sample Results

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

**Client Sample ID: SW01**

**Lab Sample ID: 890-5454-13**

Date Collected: 10/12/23 10:25

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 0-1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0     | U         | 50.0     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 19:45 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0     | U         | 50.0     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 19:45 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.0     | U         | 50.0     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 19:45 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 88        |           | 70 - 130 |       |   | 10/16/23 10:59 | 10/16/23 19:45 | 1       |
| o-Terphenyl                          | 91        |           | 70 - 130 |       |   | 10/16/23 10:59 | 10/16/23 19:45 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 119    |           | 5.00 | mg/Kg |   |          | 10/17/23 21:18 | 1       |

**Client Sample ID: SW03**

**Lab Sample ID: 890-5454-14**

Date Collected: 10/12/23 14:25

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 0-1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte                     | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Benzene                     | <0.00199  | U         | 0.00199  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 19:18 | 1       |
| Toluene                     | <0.00199  | U         | 0.00199  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 19:18 | 1       |
| Ethylbenzene                | <0.00199  | U         | 0.00199  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 19:18 | 1       |
| m-Xylene & p-Xylene         | <0.00398  | U         | 0.00398  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 19:18 | 1       |
| o-Xylene                    | <0.00199  | U         | 0.00199  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 19:18 | 1       |
| Xylenes, Total              | <0.00398  | U         | 0.00398  | mg/Kg |   | 10/16/23 08:37 | 10/16/23 19:18 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 86        |           | 70 - 130 |       |   | 10/16/23 08:37 | 10/16/23 19:18 | 1       |
| 1,4-Difluorobenzene (Surr)  | 87        |           | 70 - 130 |       |   | 10/16/23 08:37 | 10/16/23 19:18 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00398 | U         | 0.00398 | mg/Kg |   |          | 10/16/23 19:18 | 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 |   |          | 10/16/23 20:09 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.1     | U         | 50.1     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 20:09 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.1     | U         | 50.1     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 20:09 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.1     | U         | 50.1     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 20:09 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 75        |           | 70 - 130 |       |   | 10/16/23 10:59 | 10/16/23 20:09 | 1       |
| o-Terphenyl                          | 80        |           | 70 - 130 |       |   | 10/16/23 10:59 | 10/16/23 20:09 | 1       |

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### Client Sample Results

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

**Client Sample ID: SW03**

**Lab Sample ID: 890-5454-14**

Date Collected: 10/12/23 14:25

Matrix: Solid

Date Received: 10/12/23 16:14

Sample Depth: 0-1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 84.7   |           | 5.00 | mg/Kg |   |          | 10/17/23 21:25 | 1       |

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## Surrogate Summary

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

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

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                   |
|--------------------|------------------------|--|-------------------|
|                    |                        | BFB1<br>(70-130)                               | DFBZ1<br>(70-130) |
| 890-5454-1         | FS01                   | 95   | 80                |
| 890-5454-2         | FS08                   | 92   | 71                |
| 890-5454-3         | SW02                   | 93   | 79                |
| 890-5454-4         | FS02                   | 92   | 65 S1-            |
| 890-5454-5         | FS03                   | 90   | 80                |
| 890-5454-6         | FS04                   | 98   | 60 S1-            |
| 890-5454-7         | FS05                   | 109  | 118               |
| 890-5454-8         | FS06                   | 82   | 96                |
| 890-5454-9         | FS07                   | 82   | 94                |
| 890-5454-10        | FS09                   | 89   | 84                |
| 890-5454-11        | FS10                   | 82   | 96                |
| 890-5454-12        | FS11                   | 80   | 72                |
| 890-5454-13        | SW01                   | 97   | 74                |
| 890-5454-14        | SW03                   | 86   | 87                |
| 890-5455-A-1-A MS  | Matrix Spike           | 119  | 94                |
| 890-5455-A-1-B MSD | Matrix Spike Duplicate | 113  | 113               |
| LCS 880-64769/1-A  | Lab Control Sample     | 119  | 112               |
| LCS 880-64769/2-A  | Lab Control Sample Dup | 112  | 114               |
| MB 880-64769/5-A   | Method Blank           | 78   | 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

| Lab Sample ID        | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                   |
|----------------------|------------------------|--|-------------------|
|                      |                        | 1CO1<br>(70-130)                               | OTPH1<br>(70-130) |
| 880-34436-A-21-B MS  | Matrix Spike           | 128  | 115               |
| 880-34436-A-21-C MSD | Matrix Spike Duplicate | 136 S1+  | 121               |
| 890-5454-1           | FS01                   | 130  | 130               |
| 890-5454-2           | FS08                   | 84   | 83                |
| 890-5454-3           | SW02                   | 132 S1+  | 131 S1+           |
| 890-5454-4           | FS02                   | 74   | 80                |
| 890-5454-5           | FS03                   | 75   | 82                |
| 890-5454-6           | FS04                   | 77   | 83                |
| 890-5454-7           | FS05                   | 71   | 79                |
| 890-5454-8           | FS06                   | 75   | 82                |
| 890-5454-9           | FS07                   | 82   | 87                |
| 890-5454-10          | FS09                   | 75   | 79                |
| 890-5454-11          | FS10                   | 77   | 80                |
| 890-5454-12          | FS11                   | 73   | 79                |
| 890-5454-13          | SW01                   | 88   | 91                |
| 890-5454-14          | SW03                   | 75   | 80                |
| 890-5457-A-1-F MS    | Matrix Spike           | 82   | 72                |
| 890-5457-A-1-G MSD   | Matrix Spike Duplicate | 82   | 71                |
| LCS 880-64784/2-A    | Lab Control Sample     | 104  | 102               |
| LCS 880-64788/2-A    | Lab Control Sample     | 97   | 99                |

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### Surrogate Summary

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

**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<br>(70-130) | OTPH1<br>(70-130) |
|--------------------|------------------------|------------------|-------------------|
| LCSD 880-64784/3-A | Lab Control Sample Dup | 121              | 119               |
| LCSD 880-64788/3-A | Lab Control Sample Dup | 99               | 93                |
| MB 880-64784/1-A   | Method Blank           | 67 S1-           | 71                |
| MB 880-64788/1-A   | Method Blank           | 93               | 98                |

**Surrogate Legend**

1CO = 1-Chlorooctane  
OTPH = o-Terphenyl

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- 13
- 14

### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

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

Lab Sample ID: MB 880-64769/5-A  
 Matrix: Solid  
 Analysis Batch: 64759

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 64769

| Analyte             | MB Result | MB Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|-----------|--------------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 11:20 | 1       |
| Toluene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 11:20 | 1       |
| Ethylbenzene        | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 11:20 | 1       |
| m-Xylene & p-Xylene | <0.00400  | U            | 0.00400 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 11:20 | 1       |
| o-Xylene            | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 11:20 | 1       |
| Xylenes, Total      | <0.00400  | U            | 0.00400 | mg/Kg |   | 10/16/23 08:37 | 10/16/23 11:20 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 78           |              | 70 - 130 | 10/16/23 08:37 | 10/16/23 11:20 | 1       |
| 1,4-Difluorobenzene (Surr)  | 90           |              | 70 - 130 | 10/16/23 08:37 | 10/16/23 11:20 | 1       |

Lab Sample ID: LCS 880-64769/1-A  
 Matrix: Solid  
 Analysis Batch: 64759

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 64769

| Analyte             | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------------------|-------------|------------|---------------|-------|---|------|-------------|
| Benzene             | 0.100       | 0.09322    |               | mg/Kg |   | 93   | 70 - 130    |
| Toluene             | 0.100       | 0.09263    |               | mg/Kg |   | 93   | 70 - 130    |
| Ethylbenzene        | 0.100       | 0.1010     |               | mg/Kg |   | 101  | 70 - 130    |
| m-Xylene & p-Xylene | 0.200       | 0.2221     |               | mg/Kg |   | 111  | 70 - 130    |
| o-Xylene            | 0.100       | 0.1104     |               | mg/Kg |   | 110  | 70 - 130    |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 119           |               | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 112           |               | 70 - 130 |

Lab Sample ID: LCSD 880-64769/2-A  
 Matrix: Solid  
 Analysis Batch: 64759

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 64769

| Analyte             | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | Limit |
|---------------------|-------------|-------------|----------------|-------|---|------|-------------|-----|-------|
| Benzene             | 0.100       | 0.09816     |                | mg/Kg |   | 98   | 70 - 130    | 5   | 35    |
| Toluene             | 0.100       | 0.09206     |                | mg/Kg |   | 92   | 70 - 130    | 1   | 35    |
| Ethylbenzene        | 0.100       | 0.09430     |                | mg/Kg |   | 94   | 70 - 130    | 7   | 35    |
| m-Xylene & p-Xylene | 0.200       | 0.2044      |                | mg/Kg |   | 102  | 70 - 130    | 8   | 35    |
| o-Xylene            | 0.100       | 0.1021      |                | mg/Kg |   | 102  | 70 - 130    | 8   | 35    |

| Surrogate                   | LCSD %Recovery | LCSD Qualifier | Limits   |
|-----------------------------|----------------|----------------|----------|
| 4-Bromofluorobenzene (Surr) | 112            |                | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 114            |                | 70 - 130 |

Lab Sample ID: 890-5455-A-1-A MS  
 Matrix: Solid  
 Analysis Batch: 64759

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 64769

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Benzene | <0.00201      | U                | 0.0998      | 0.1041    |              | mg/Kg |   | 104  | 70 - 130    |
| Toluene | <0.00201      | U                | 0.0998      | 0.1002    |              | mg/Kg |   | 100  | 70 - 130    |

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### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

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

Lab Sample ID: 890-5455-A-1-A MS  
 Matrix: Solid  
 Analysis Batch: 64759

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 64769

| Analyte             | Sample   | Sample    | Spike  | MS     | MS        | Unit  | D | %Rec | %Rec     |
|---------------------|----------|-----------|--------|--------|-----------|-------|---|------|----------|
|                     | Result   | Qualifier |        | Result | Qualifier |       |   |      |          |
| Ethylbenzene        | <0.00201 | U         | 0.0998 | 0.1051 |           | mg/Kg |   | 105  | 70 - 130 |
| m-Xylene & p-Xylene | <0.00402 | U         | 0.200  | 0.2264 |           | mg/Kg |   | 113  | 70 - 130 |
| o-Xylene            | <0.00201 | U         | 0.0998 | 0.1122 |           | mg/Kg |   | 112  | 70 - 130 |

| Surrogate                   | MS        | MS        | Limits   |
|-----------------------------|-----------|-----------|----------|
|                             | %Recovery | Qualifier |          |
| 4-Bromofluorobenzene (Surr) | 119       |           | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 94        |           | 70 - 130 |

Lab Sample ID: 890-5455-A-1-B MSD  
 Matrix: Solid  
 Analysis Batch: 64759

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA  
 Prep Batch: 64769

| Analyte             | Sample   | Sample    | Spike | MSD     | MSD       | Unit  | D | %Rec | %Rec     | RPD | Limit |
|---------------------|----------|-----------|-------|---------|-----------|-------|---|------|----------|-----|-------|
|                     | Result   | Qualifier |       | Result  | Qualifier |       |   |      |          |     |       |
| Benzene             | <0.00201 | U         | 0.100 | 0.08916 |           | mg/Kg |   | 89   | 70 - 130 | 15  | 35    |
| Toluene             | <0.00201 | U         | 0.100 | 0.08403 |           | mg/Kg |   | 84   | 70 - 130 | 18  | 35    |
| Ethylbenzene        | <0.00201 | U         | 0.100 | 0.08680 |           | mg/Kg |   | 87   | 70 - 130 | 19  | 35    |
| m-Xylene & p-Xylene | <0.00402 | U         | 0.200 | 0.1859  |           | mg/Kg |   | 93   | 70 - 130 | 20  | 35    |
| o-Xylene            | <0.00201 | U         | 0.100 | 0.09348 |           | mg/Kg |   | 93   | 70 - 130 | 18  | 35    |

| Surrogate                   | MSD       | MSD       | Limits   |
|-----------------------------|-----------|-----------|----------|
|                             | %Recovery | Qualifier |          |
| 4-Bromofluorobenzene (Surr) | 113       |           | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 113       |           | 70 - 130 |

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

Lab Sample ID: MB 880-64784/1-A  
 Matrix: Solid  
 Analysis Batch: 64757

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 64784

| Analyte                              | MB     | MB        | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
|                                      | Result | Qualifier |      |       |   |                |                |         |
| Gasoline Range Organics (GRO)-C6-C10 | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 08:00 | 10/16/23 09:06 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 08:00 | 10/16/23 09:06 | 1       |
| Oll Range Organics (Over C28-C36)    | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 08:00 | 10/16/23 09:06 | 1       |

| Surrogate      | MB        | MB        | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
|                | %Recovery | Qualifier |          |                |                |         |
| 1-Chlorooctane | 67        | S1-       | 70 - 130 | 10/16/23 08:00 | 10/16/23 09:06 | 1       |
| o-Terphenyl    | 71        |           | 70 - 130 | 10/16/23 08:00 | 10/16/23 09:06 | 1       |

Lab Sample ID: LCS 880-64784/2-A  
 Matrix: Solid  
 Analysis Batch: 64757

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 64784

| Analyte                              | Spike | LCS   | LCS | Unit  | D | %Rec | %Rec     |
|--------------------------------------|-------|-------|-----|-------|---|------|----------|
|                                      |       |       |     |       |   |      |          |
| Gasoline Range Organics (GRO)-C6-C10 | 1000  | 849.3 |     | mg/Kg |   | 85   | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | 1000  | 828.2 |     | mg/Kg |   | 83   | 70 - 130 |

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### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

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

Lab Sample ID: LCS 880-64784/2-A  
 Matrix: Solid  
 Analysis Batch: 64757

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 64784

| Surrogate      | LCS       |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 104       |           | 70 - 130 |
| o-Terphenyl    | 102       |           | 70 - 130 |

Lab Sample ID: LCSD 880-64784/3-A  
 Matrix: Solid  
 Analysis Batch: 64757

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 64784

| Analyte                              | Spike Added | LCSD   |           | Unit  | D | %Rec | %Rec     |     | RPD | Limit |
|--------------------------------------|-------------|--------|-----------|-------|---|------|----------|-----|-----|-------|
|                                      |             | Result | Qualifier |       |   |      | Limits   | RPD |     |       |
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 915.9  |           | mg/Kg |   | 92   | 70 - 130 | 8   | 20  |       |
| Diesel Range Organics (Over C10-C28) | 1000        | 932.8  |           | mg/Kg |   | 93   | 70 - 130 | 12  | 20  |       |

| Surrogate      | LCSD      |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 121       |           | 70 - 130 |
| o-Terphenyl    | 119       |           | 70 - 130 |

Lab Sample ID: 880-34436-A-21-B MS  
 Matrix: Solid  
 Analysis Batch: 64757

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 64784

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MS     |           | Unit  | D | %Rec | %Rec     |     |
|--------------------------------------|---------------|------------------|-------------|--------|-----------|-------|---|------|----------|-----|
|                                      |               |                  |             | Result | Qualifier |       |   |      | Limits   | RPD |
| Gasoline Range Organics (GRO)-C6-C10 | <49.9         | U                | 993         | 1229   |           | mg/Kg |   | 122  | 70 - 130 |     |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 993         | 1181   |           | mg/Kg |   | 115  | 70 - 130 |     |

| Surrogate      | MS        |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 128       |           | 70 - 130 |
| o-Terphenyl    | 115       |           | 70 - 130 |

Lab Sample ID: 880-34436-A-21-C MSD  
 Matrix: Solid  
 Analysis Batch: 64757

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA  
 Prep Batch: 64784

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MSD    |           | Unit  | D | %Rec | %Rec     |     | RPD | Limit |
|--------------------------------------|---------------|------------------|-------------|--------|-----------|-------|---|------|----------|-----|-----|-------|
|                                      |               |                  |             | Result | Qualifier |       |   |      | Limits   | RPD |     |       |
| Gasoline Range Organics (GRO)-C6-C10 | <49.9         | U                | 993         | 1179   |           | mg/Kg |   | 117  | 70 - 130 | 4   | 20  |       |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 993         | 1255   |           | mg/Kg |   | 122  | 70 - 130 | 6   | 20  |       |

| Surrogate      | MSD       |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 136       | S1+       | 70 - 130 |
| o-Terphenyl    | 121       |           | 70 - 130 |

### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

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

Lab Sample ID: MB 880-64788/1-A  
 Matrix: Solid  
 Analysis Batch: 64753

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 64788

| Analyte                              | MB MB  |           | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
|                                      | Result | Qualifier |      |       |   |                |                |         |
| Gasoline Range Organics (GRO)-C6-C10 | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 08:00 | 10/16/23 08:49 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 08:00 | 10/16/23 08:49 | 1       |
| Oll Range Organics (Over C28-C36)    | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 08:00 | 10/16/23 08:49 | 1       |

| Surrogate      | MB MB     |           | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
|                | %Recovery | Qualifier |          |                |                |         |
| 1-Chlorooctane | 93        |           | 70 - 130 | 10/16/23 08:00 | 10/16/23 08:49 | 1       |
| o-Terphenyl    | 98        |           | 70 - 130 | 10/16/23 08:00 | 10/16/23 08:49 | 1       |

Lab Sample ID: LCS 880-64788/2-A  
 Matrix: Solid  
 Analysis Batch: 64753

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 64788

| Analyte                              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|--------------------------------------|-------------|------------|---------------|-------|---|------|-------------|
|                                      |             |            |               |       |   |      |             |
| Diesel Range Organics (Over C10-C28) | 1000        | 915.4      |               | mg/Kg |   | 92   | 70 - 130    |

| Surrogate      | LCS LCS   |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 97        |           | 70 - 130 |
| o-Terphenyl    | 99        |           | 70 - 130 |

Lab Sample ID: LCSD 880-64788/3-A  
 Matrix: Solid  
 Analysis Batch: 64753

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 64788

| Analyte                              | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD |       |
|--------------------------------------|-------------|-------------|----------------|-------|---|------|-------------|-----|-------|
|                                      |             |             |                |       |   |      |             | RPD | Limit |
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 866.4       |                | mg/Kg |   | 87   | 70 - 130    | 2   | 20    |
| Diesel Range Organics (Over C10-C28) | 1000        | 877.5       |                | mg/Kg |   | 88   | 70 - 130    | 4   | 20    |

| Surrogate      | LCSD LCSD |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 99        |           | 70 - 130 |
| o-Terphenyl    | 93        |           | 70 - 130 |

Lab Sample ID: 890-5457-A-1-F MS  
 Matrix: Solid  
 Analysis Batch: 64753

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 64788

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|--------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
|                                      |               |                  |             |           |              |       |   |      |             |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 991         | 703.9     |              | mg/Kg |   | 71   | 70 - 130    |

### QC Sample Results

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

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

Lab Sample ID: 890-5457-A-1-F MS  
Matrix: Solid  
Analysis Batch: 64753

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 64788

| Surrogate      | %Recovery | MS MS<br>Qualifier | Limits   |
|----------------|-----------|--------------------|----------|
| 1-Chlorooctane | 82        |                    | 70 - 130 |
| o-Terphenyl    | 72        |                    | 70 - 130 |

Lab Sample ID: 890-5457-A-1-G MSD  
Matrix: Solid  
Analysis Batch: 64753

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 64788

| 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                | 991         | 733.4      |               | mg/Kg |   | 71   | 70 - 130    | 0   | 20        |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 991         | 712.2      |               | mg/Kg |   | 72   | 70 - 130    | 1   | 20        |

| Surrogate      | %Recovery | MSD MSD<br>Qualifier | Limits   |
|----------------|-----------|----------------------|----------|
| 1-Chlorooctane | 82        |                      | 70 - 130 |
| o-Terphenyl    | 71        |                      | 70 - 130 |

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-64791/1-A  
Matrix: Solid  
Analysis Batch: 64856

Client Sample ID: Method Blank  
Prep Type: Soluble

| Analyte  | MB Result | MB Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|-----------|--------------|------|-------|---|----------|----------------|---------|
| Chloride | <5.00     | U            | 5.00 | mg/Kg |   |          | 10/16/23 19:57 | 1       |

Lab Sample ID: LCS 880-64791/2-A  
Matrix: Solid  
Analysis Batch: 64856

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|-------|---|------|-------------|
| Chloride | 250         | 246.1      |               | mg/Kg |   | 98   | 90 - 110    |

Lab Sample ID: LCSD 880-64791/3-A  
Matrix: Solid  
Analysis Batch: 64856

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

| Analyte  | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|-------|---|------|-------------|-----|-----------|
| Chloride | 250         | 246.3       |                | mg/Kg |   | 99   | 90 - 110    | 0   | 20        |

Lab Sample ID: 890-5453-A-5-B MS  
Matrix: Solid  
Analysis Batch: 64856

Client Sample ID: Matrix Spike  
Prep Type: Soluble

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Chloride | 3720          |                  | 2500        | 6184      |              | mg/Kg |   | 99   | 90 - 110    |

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### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Method: 300.0 - Anions, Ion Chromatography (Continued)**

**Lab Sample ID: 890-5453-A-5-C MSD**  
**Matrix: Solid**  
**Analysis Batch: 64856**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Soluble**

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Chloride | 3720          |                  | 2500        | 6188       |               | mg/Kg |   | 99   | 90 - 110    | 0   | 20        |

**Lab Sample ID: MB 880-64793/1-A**  
**Matrix: Solid**  
**Analysis Batch: 64900**

**Client Sample ID: Method Blank**  
**Prep Type: Soluble**

| Analyte  | MB Result | MB Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|-----------|--------------|------|-------|---|----------|----------------|---------|
| Chloride | <5.00     | U            | 5.00 | mg/Kg |   |          | 10/17/23 18:05 | 1       |

**Lab Sample ID: LCS 880-64793/2-A**  
**Matrix: Solid**  
**Analysis Batch: 64900**

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

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|-------|---|------|-------------|
| Chloride | 250         | 231.8      |               | mg/Kg |   | 93   | 90 - 110    |

**Lab Sample ID: LCSD 880-64793/3-A**  
**Matrix: Solid**  
**Analysis Batch: 64900**

**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         | 231.8       |                | mg/Kg |   | 93   | 90 - 110    | 0   | 20        |

**Lab Sample ID: 880-34434-A-1-B MS**  
**Matrix: Solid**  
**Analysis Batch: 64900**

**Client Sample ID: Matrix Spike**  
**Prep Type: Soluble**

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Chloride | 384           | F1               | 251         | 604.7     | F1           | mg/Kg |   | 88   | 90 - 110    |

**Lab Sample ID: 880-34434-A-1-C MSD**  
**Matrix: Solid**  
**Analysis Batch: 64900**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Soluble**

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Chloride | 384           | F1               | 251         | 605.7      | F1            | mg/Kg |   | 88   | 90 - 110    | 0   | 20        |

### QC Association Summary

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

#### GC VOA

##### Analysis Batch: 64759

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-5454-1         | FS01                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-2         | FS08                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-3         | SW02                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-4         | FS02                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-5         | FS03                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-6         | FS04                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-7         | FS05                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-8         | FS06                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-9         | FS07                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-10        | FS09                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-11        | FS10                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-12        | FS11                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-13        | SW01                   | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5454-14        | SW03                   | Total/NA  | Solid  | 8021B  | 64769      |
| MB 880-64769/5-A   | Method Blank           | Total/NA  | Solid  | 8021B  | 64769      |
| LCS 880-64769/1-A  | Lab Control Sample     | Total/NA  | Solid  | 8021B  | 64769      |
| LCSD 880-64769/2-A | Lab Control Sample Dup | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5455-A-1-A MS  | Matrix Spike           | Total/NA  | Solid  | 8021B  | 64769      |
| 890-5455-A-1-B MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8021B  | 64769      |

##### Prep Batch: 64769

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-5454-1         | FS01                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-2         | FS08                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-3         | SW02                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-4         | FS02                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-5         | FS03                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-6         | FS04                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-7         | FS05                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-8         | FS06                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-9         | FS07                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-10        | FS09                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-11        | FS10                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-12        | FS11                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-13        | SW01                   | Total/NA  | Solid  | 5035   |            |
| 890-5454-14        | SW03                   | Total/NA  | Solid  | 5035   |            |
| MB 880-64769/5-A   | Method Blank           | Total/NA  | Solid  | 5035   |            |
| LCS 880-64769/1-A  | Lab Control Sample     | Total/NA  | Solid  | 5035   |            |
| LCSD 880-64769/2-A | Lab Control Sample Dup | Total/NA  | Solid  | 5035   |            |
| 890-5455-A-1-A MS  | Matrix Spike           | Total/NA  | Solid  | 5035   |            |
| 890-5455-A-1-B MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 5035   |            |

##### Analysis Batch: 64831

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method     | Prep Batch |
|---------------|------------------|-----------|--------|------------|------------|
| 890-5454-1    | FS01             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-2    | FS08             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-3    | SW02             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-4    | FS02             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-5    | FS03             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-6    | FS04             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-7    | FS05             | Total/NA  | Solid  | Total BTEX |            |

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## QC Association Summary

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

## GC VOA (Continued)

## Analysis Batch: 64831 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method     | Prep Batch |
|---------------|------------------|-----------|--------|------------|------------|
| 890-5454-8    | FS06             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-9    | FS07             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-10   | FS09             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-11   | FS10             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-12   | FS11             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-13   | SW01             | Total/NA  | Solid  | Total BTEX |            |
| 890-5454-14   | SW03             | Total/NA  | Solid  | Total BTEX |            |

## GC Semi VOA

## Analysis Batch: 64753

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|--------------------|------------------------|-----------|--------|----------|------------|
| 890-5454-4         | FS02                   | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5454-5         | FS03                   | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5454-6         | FS04                   | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5454-7         | FS05                   | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5454-8         | FS06                   | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5454-9         | FS07                   | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5454-10        | FS09                   | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5454-11        | FS10                   | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5454-12        | FS11                   | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5454-13        | SW01                   | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5454-14        | SW03                   | Total/NA  | Solid  | 8015B NM | 64788      |
| MB 880-64788/1-A   | Method Blank           | Total/NA  | Solid  | 8015B NM | 64788      |
| LCS 880-64788/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8015B NM | 64788      |
| LCSD 880-64788/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5457-A-1-F MS  | Matrix Spike           | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5457-A-1-G MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015B NM | 64788      |

## Analysis Batch: 64757

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|----------------------|------------------------|-----------|--------|----------|------------|
| 890-5454-1           | FS01                   | Total/NA  | Solid  | 8015B NM | 64784      |
| 890-5454-2           | FS08                   | Total/NA  | Solid  | 8015B NM | 64784      |
| 890-5454-3           | SW02                   | Total/NA  | Solid  | 8015B NM | 64784      |
| MB 880-64784/1-A     | Method Blank           | Total/NA  | Solid  | 8015B NM | 64784      |
| LCS 880-64784/2-A    | Lab Control Sample     | Total/NA  | Solid  | 8015B NM | 64784      |
| LCSD 880-64784/3-A   | Lab Control Sample Dup | Total/NA  | Solid  | 8015B NM | 64784      |
| 880-34436-A-21-B MS  | Matrix Spike           | Total/NA  | Solid  | 8015B NM | 64784      |
| 880-34436-A-21-C MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015B NM | 64784      |

## Prep Batch: 64784

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method      | Prep Batch |
|----------------------|------------------------|-----------|--------|-------------|------------|
| 890-5454-1           | FS01                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-2           | FS08                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-3           | SW02                   | Total/NA  | Solid  | 8015NM Prep |            |
| MB 880-64784/1-A     | Method Blank           | Total/NA  | Solid  | 8015NM Prep |            |
| LCS 880-64784/2-A    | Lab Control Sample     | Total/NA  | Solid  | 8015NM Prep |            |
| LCSD 880-64784/3-A   | Lab Control Sample Dup | Total/NA  | Solid  | 8015NM Prep |            |
| 880-34436-A-21-B MS  | Matrix Spike           | Total/NA  | Solid  | 8015NM Prep |            |
| 880-34436-A-21-C MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015NM Prep |            |

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## QC Association Summary

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

## GC Semi VOA

## Prep Batch: 64788

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method      | Prep Batch |
|--------------------|------------------------|-----------|--------|-------------|------------|
| 890-5454-4         | FS02                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-5         | FS03                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-6         | FS04                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-7         | FS05                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-8         | FS06                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-9         | FS07                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-10        | FS09                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-11        | FS10                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-12        | FS11                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-13        | SW01                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5454-14        | SW03                   | Total/NA  | Solid  | 8015NM Prep |            |
| MB 880-64788/1-A   | Method Blank           | Total/NA  | Solid  | 8015NM Prep |            |
| LCS 880-64788/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8015NM Prep |            |
| LCSD 880-64788/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5457-A-1-F MS  | Matrix Spike           | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5457-A-1-G MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015NM Prep |            |

## Analysis Batch: 64872

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method  | Prep Batch |
|---------------|------------------|-----------|--------|---------|------------|
| 890-5454-1    | FS01             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-2    | FS08             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-3    | SW02             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-4    | FS02             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-5    | FS03             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-6    | FS04             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-7    | FS05             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-8    | FS06             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-9    | FS07             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-10   | FS09             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-11   | FS10             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-12   | FS11             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-13   | SW01             | Total/NA  | Solid  | 8015 NM |            |
| 890-5454-14   | SW03             | Total/NA  | Solid  | 8015 NM |            |

## HPLC/IC

## Leach Batch: 64791

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|--------------------|------------------------|-----------|--------|----------|------------|
| 890-5454-1         | FS01                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-2         | FS08                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-3         | SW02                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-4         | FS02                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-5         | FS03                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-6         | FS04                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-7         | FS05                   | Soluble   | Solid  | DI Leach |            |
| MB 880-64791/1-A   | Method Blank           | Soluble   | Solid  | DI Leach |            |
| LCS 880-64791/2-A  | Lab Control Sample     | Soluble   | Solid  | DI Leach |            |
| LCSD 880-64791/3-A | Lab Control Sample Dup | Soluble   | Solid  | DI Leach |            |
| 890-5453-A-5-B MS  | Matrix Spike           | Soluble   | Solid  | DI Leach |            |
| 890-5453-A-5-C MSD | Matrix Spike Duplicate | Soluble   | Solid  | DI Leach |            |

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### QC Association Summary

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

#### HPLC/IC

##### Leach Batch: 64793

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|---------------------|------------------------|-----------|--------|----------|------------|
| 890-5454-8          | FS06                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-9          | FS07                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-10         | FS09                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-11         | FS10                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-12         | FS11                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-13         | SW01                   | Soluble   | Solid  | DI Leach |            |
| 890-5454-14         | SW03                   | Soluble   | Solid  | DI Leach |            |
| MB 880-64793/1-A    | Method Blank           | Soluble   | Solid  | DI Leach |            |
| LCS 880-64793/2-A   | Lab Control Sample     | Soluble   | Solid  | DI Leach |            |
| LCSD 880-64793/3-A  | Lab Control Sample Dup | Soluble   | Solid  | DI Leach |            |
| 880-34434-A-1-B MS  | Matrix Spike           | Soluble   | Solid  | DI Leach |            |
| 880-34434-A-1-C MSD | Matrix Spike Duplicate | Soluble   | Solid  | DI Leach |            |

##### Analysis Batch: 64856

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-5454-1         | FS01                   | Soluble   | Solid  | 300.0  | 64791      |
| 890-5454-2         | FS08                   | Soluble   | Solid  | 300.0  | 64791      |
| 890-5454-3         | SW02                   | Soluble   | Solid  | 300.0  | 64791      |
| 890-5454-4         | FS02                   | Soluble   | Solid  | 300.0  | 64791      |
| 890-5454-5         | FS03                   | Soluble   | Solid  | 300.0  | 64791      |
| 890-5454-6         | FS04                   | Soluble   | Solid  | 300.0  | 64791      |
| 890-5454-7         | FS05                   | Soluble   | Solid  | 300.0  | 64791      |
| MB 880-64791/1-A   | Method Blank           | Soluble   | Solid  | 300.0  | 64791      |
| LCS 880-64791/2-A  | Lab Control Sample     | Soluble   | Solid  | 300.0  | 64791      |
| LCSD 880-64791/3-A | Lab Control Sample Dup | Soluble   | Solid  | 300.0  | 64791      |
| 890-5453-A-5-B MS  | Matrix Spike           | Soluble   | Solid  | 300.0  | 64791      |
| 890-5453-A-5-C MSD | Matrix Spike Duplicate | Soluble   | Solid  | 300.0  | 64791      |

##### Analysis Batch: 64900

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 890-5454-8          | FS06                   | Soluble   | Solid  | 300.0  | 64793      |
| 890-5454-9          | FS07                   | Soluble   | Solid  | 300.0  | 64793      |
| 890-5454-10         | FS09                   | Soluble   | Solid  | 300.0  | 64793      |
| 890-5454-11         | FS10                   | Soluble   | Solid  | 300.0  | 64793      |
| 890-5454-12         | FS11                   | Soluble   | Solid  | 300.0  | 64793      |
| 890-5454-13         | SW01                   | Soluble   | Solid  | 300.0  | 64793      |
| 890-5454-14         | SW03                   | Soluble   | Solid  | 300.0  | 64793      |
| MB 880-64793/1-A    | Method Blank           | Soluble   | Solid  | 300.0  | 64793      |
| LCS 880-64793/2-A   | Lab Control Sample     | Soluble   | Solid  | 300.0  | 64793      |
| LCSD 880-64793/3-A  | Lab Control Sample Dup | Soluble   | Solid  | 300.0  | 64793      |
| 880-34434-A-1-B MS  | Matrix Spike           | Soluble   | Solid  | 300.0  | 64793      |
| 880-34434-A-1-C MSD | Matrix Spike Duplicate | Soluble   | Solid  | 300.0  | 64793      |

### Lab Chronicle

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: FS01**

**Lab Sample ID: 890-5454-1**

Date Collected: 10/11/23 15:00

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 13:45       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 13:45       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 19:01       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.90 g         | 10 mL        | 64784        | 10/16/23 09:46       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64757        | 10/16/23 19:01       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.99 g         | 50 mL        | 64791        | 10/16/23 11:44       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64856        | 10/16/23 22:36       | CH      | EET MID |

**Client Sample ID: FS08**

**Lab Sample ID: 890-5454-2**

Date Collected: 10/11/23 10:25

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 14:05       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 14:05       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 19:23       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.01 g        | 10 mL        | 64784        | 10/16/23 09:46       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64757        | 10/16/23 19:23       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.03 g         | 50 mL        | 64791        | 10/16/23 11:44       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64856        | 10/16/23 22:42       | CH      | EET MID |

**Client Sample ID: SW02**

**Lab Sample ID: 890-5454-3**

Date Collected: 10/11/23 10:45

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 14:26       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 14:26       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 19:45       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.09 g        | 10 mL        | 64784        | 10/16/23 09:46       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64757        | 10/16/23 19:45       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.04 g         | 50 mL        | 64791        | 10/16/23 11:44       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64856        | 10/16/23 22:49       | CH      | EET MID |

**Client Sample ID: FS02**

**Lab Sample ID: 890-5454-4**

Date Collected: 10/12/23 09:20

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 14:46       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 14:46       | SM      | EET MID |

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### Lab Chronicle

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: FS02**

**Lab Sample ID: 890-5454-4**

Date Collected: 10/12/23 09:20

Matrix: Solid

Date Received: 10/12/23 16:14

| 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          |                |              | 64872        | 10/16/23 15:49       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.02 g        | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 15:49       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.97 g         | 50 mL        | 64791        | 10/16/23 11:44       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64856        | 10/16/23 22:55       | CH      | EET MID |

**Client Sample ID: FS03**

**Lab Sample ID: 890-5454-5**

Date Collected: 10/12/23 09:25

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 16:13       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 16:13       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 16:13       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.03 g        | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 16:13       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.95 g         | 50 mL        | 64791        | 10/16/23 11:44       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64856        | 10/16/23 23:02       | CH      | EET MID |

**Client Sample ID: FS04**

**Lab Sample ID: 890-5454-6**

Date Collected: 10/12/23 09:30

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 16:33       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 16:33       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 16:37       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.08 g        | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 16:37       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.96 g         | 50 mL        | 64791        | 10/16/23 11:44       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64856        | 10/16/23 23:09       | CH      | EET MID |

**Client Sample ID: FS05**

**Lab Sample ID: 890-5454-7**

Date Collected: 10/12/23 09:35

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 16:54       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 16:54       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 17:01       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.94 g         | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 17:01       | SM      | EET MID |

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### Lab Chronicle

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: FS05**

**Lab Sample ID: 890-5454-7**

Date Collected: 10/12/23 09:35

Matrix: Solid

Date Received: 10/12/23 16:14

| 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        | 64791        | 10/16/23 11:44       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64856        | 10/16/23 23:15       | CH      | EET MID |

**Client Sample ID: FS06**

**Lab Sample ID: 890-5454-8**

Date Collected: 10/12/23 09:40

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 17:14       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 17:14       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 17:25       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.91 g         | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 17:25       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.97 g         | 50 mL        | 64793        | 10/16/23 11:48       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64900        | 10/17/23 20:45       | CH      | EET MID |

**Client Sample ID: FS07**

**Lab Sample ID: 890-5454-9**

Date Collected: 10/12/23 10:15

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 17:35       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 17:35       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 18:11       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.90 g         | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 18:11       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.97 g         | 50 mL        | 64793        | 10/16/23 11:48       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64900        | 10/17/23 20:52       | CH      | EET MID |

**Client Sample ID: FS09**

**Lab Sample ID: 890-5454-10**

Date Collected: 10/12/23 14:05

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 17:56       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 17:56       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 18:35       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.00 g        | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 18:35       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.95 g         | 50 mL        | 64793        | 10/16/23 11:48       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64900        | 10/17/23 20:58       | CH      | EET MID |

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### Lab Chronicle

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

**Client Sample ID: FS10**

**Lab Sample ID: 890-5454-11**

Date Collected: 10/12/23 14:10

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 18:16       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 18:16       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 18:59       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.02 g        | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 18:59       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.98 g         | 50 mL        | 64793        | 10/16/23 11:48       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64900        | 10/17/23 21:05       | CH      | EET MID |

**Client Sample ID: FS11**

**Lab Sample ID: 890-5454-12**

Date Collected: 10/12/23 14:15

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 18:37       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 18:37       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 19:22       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.03 g        | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 19:22       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.02 g         | 50 mL        | 64793        | 10/16/23 11:48       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64900        | 10/17/23 21:12       | CH      | EET MID |

**Client Sample ID: SW01**

**Lab Sample ID: 890-5454-13**

Date Collected: 10/12/23 10:25

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 18:57       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 18:57       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64872        | 10/16/23 19:45       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.00 g        | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 19:45       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5 g            | 50 mL        | 64793        | 10/16/23 11:48       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64900        | 10/17/23 21:18       | CH      | EET MID |

**Client Sample ID: SW03**

**Lab Sample ID: 890-5454-14**

Date Collected: 10/12/23 14:25

Matrix: Solid

Date Received: 10/12/23 16:14

| 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         | 64769        | 10/16/23 08:37       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64759        | 10/16/23 19:18       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 64831        | 10/16/23 19:18       | SM      | EET MID |

Eurofins Carlsbad

### Lab Chronicle

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
 SDG: 03C1558276

**Client Sample ID: SW03**

**Lab Sample ID: 890-5454-14**

Date Collected: 10/12/23 14:25

Matrix: Solid

Date Received: 10/12/23 16:14

| 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          |                |              | 64872        | 10/16/23 20:09       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.99 g         | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 20:09       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5 g            | 50 mL        | 64793        | 10/16/23 11:48       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64900        | 10/17/23 21:25       | CH      | EET MID |

**Laboratory References:**

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

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### Accreditation/Certification Summary

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

#### 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 |

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### Method Summary

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

| 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: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5454-1  
SDG: 03C1558276

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Depth |
|---------------|------------------|--------|----------------|----------------|-------|
| 890-5454-1    | FS01             | Solid  | 10/11/23 15:00 | 10/12/23 16:14 | 1     |
| 890-5454-2    | FS08             | Solid  | 10/11/23 10:25 | 10/12/23 16:14 | 1     |
| 890-5454-3    | SW02             | Solid  | 10/11/23 10:45 | 10/12/23 16:14 | 0-1   |
| 890-5454-4    | FS02             | Solid  | 10/12/23 09:20 | 10/12/23 16:14 | 1     |
| 890-5454-5    | FS03             | Solid  | 10/12/23 09:25 | 10/12/23 16:14 | 1     |
| 890-5454-6    | FS04             | Solid  | 10/12/23 09:30 | 10/12/23 16:14 | 1     |
| 890-5454-7    | FS05             | Solid  | 10/12/23 09:35 | 10/12/23 16:14 | 1     |
| 890-5454-8    | FS06             | Solid  | 10/12/23 09:40 | 10/12/23 16:14 | 1     |
| 890-5454-9    | FS07             | Solid  | 10/12/23 10:15 | 10/12/23 16:14 | 1     |
| 890-5454-10   | FS09             | Solid  | 10/12/23 14:05 | 10/12/23 16:14 | 1     |
| 890-5454-11   | FS10             | Solid  | 10/12/23 14:10 | 10/12/23 16:14 | 1     |
| 890-5454-12   | FS11             | Solid  | 10/12/23 14:15 | 10/12/23 16:14 | 1     |
| 890-5454-13   | SW01             | Solid  | 10/12/23 10:25 | 10/12/23 16:14 | 0-1   |
| 890-5454-14   | SW03             | Solid  | 10/12/23 14:25 | 10/12/23 16:14 | 0-1   |

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
 El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199



Environment Testing

Work Order No.

www.xenco.com Page 1 of 2

|                  |                         |                         |                              |
|------------------|-------------------------|-------------------------|------------------------------|
| Project Manager: | Ben Belli               | Bill to: (if different) | Garrett Green                |
| Company Name:    | Ensolum, LLC            | Company Name:           | XTO Energy                   |
| Address:         | 3122 National Parks Hwy | Address:                | 3104 E. Greene St            |
| City, State ZIP: | Carlsbad, NM 88220      | City, State ZIP:        | Carlsbad, NM 88220           |
| Phone:           | 989-854-0852            | Email:                  | Garrett.Green@ExxonMobil.com |

|                   |                           |   |                               |
|-------------------|---------------------------|---|-------------------------------|
| Project Name:     | James Ranch Unit 21 Piser | Turn Around   |                               |
| Project Number:   | 0361558270                | <input checked="" type="checkbox"/> Routine                   | <input type="checkbox"/> Rush |
| Project Location: | 32.35505, -103.84600      | Due Date:   | 5 days                        |
| Sampler's Name:   | Mariah Odell              | TAT starts the day received by the lab, if received by 4:30pm |                               |
| PO #:             |                           |   |                               |

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/Comp | # of Cont | Parameters |    | Pres. Code |
|-----------------------|--------|--------------|--------------|-------|-----------|-----------|------------|----|------------|
|                       |        |              |              |       |           |           | Yes        | No |            |
| FS01                  | S      | 10/11/23     | 15:00        | 1'    | C         | 1         |            |    |            |
| FS08                  |        | 10/11/23     | 10:25        | 1'    |           | 1         |            |    |            |
| SW02                  |        | 10/11/23     | 10:45        | 0-1'  |           | 1         |            |    |            |
| FS02                  |        | 10/12/23     | 9:20         | 1'    |           | 1         |            |    |            |
| FS03                  |        |              | 9:25         | 1'    |           | 1         |            |    |            |
| FS04                  |        |              | 9:30         |       |           | 1         |            |    |            |
| FS05                  |        |              | 9:35         |       |           | 1         |            |    |            |
| FS06                  |        |              | 9:40         |       |           | 1         |            |    |            |
| FS07                  |        |              | 10:15        |       |           | 1         |            |    |            |
| FS09                  |        |              | 14:05        |       |           | 1         |            |    |            |

Total 200.77 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed TCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

|                              |                          |           |           |
|------------------------------|--------------------------|-----------|-----------|
| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Date/Time |
| <i>[Signature]</i>           | <i>[Signature]</i>       | 10/12     | 16:14     |



890-5454 Chain of Custody

Chlorides  
 TPH  
 BTEX

Sample Comments  
 INCIDENT #:  
 NADP 2322742848  
 COST CENTER:  
 108111001  
 Ben Belli  
 bbelli@ensolum.com





### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5454-1

SDG Number: 03C1558276

**Login Number: 5454**

**List Number: 1**

**Creator: Lopez, Abraham**

**List Source: Eurofins Carlsbad**

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

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### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5454-1

SDG Number: 03C1558276

Login Number: 5454

List Source: Eurofins Midland

List Number: 2

List Creation: 10/16/23 08:35 AM

Creator: Rodriguez, Leticia

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

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Ben Belill  
Ensolum

601 N. Marienfeld St.  
Suite 400

Midland, Texas 79701

Generated 10/19/2023 3:09:34 PM

## JOB DESCRIPTION

James Ranch Unit 21 Riser  
SDG NUMBER 03C1558276

## JOB NUMBER

890-5456-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220



# Eurofins Carlsbad

## 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



Generated  
10/19/2023 3:09:34 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

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Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Laboratory Job ID: 890-5456-1  
SDG: 03C1558276

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## Definitions/Glossary

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

### Qualifiers

#### GC VOA

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

#### GC Semi VOA

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

#### HPLC/IC

| Qualifier | Qualifier Description                                    |
|-----------|--|
| 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.                                 |
|----------------|---|
| α              | 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: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

**Job ID: 890-5456-1**

**Laboratory: Eurofins Carlsbad**

**Narrative****Job Narrative  
890-5456-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**

The samples were received on 10/13/2023 1:42 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: FS12 (890-5456-1), FS13 (890-5456-2), FS14 (890-5456-3), FS15 (890-5456-4), SW04 (890-5456-5), SW05 (890-5456-6), SW06 (890-5456-7) and SW07 (890-5456-8).

**GC VOA**

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS12 (890-5456-1), FS14 (890-5456-3) and SW04 (890-5456-5). 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: SW05 (890-5456-6), SW06 (890-5456-7) and SW07 (890-5456-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-64934 recovered above the upper control limit for m-Xylene & p-Xylene 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 880-64934/33).

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

**GC Semi VOA**

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-64861 and analytical batch 880-64850 was outside the upper control limits.

Method 8015MOD\_NM: The method blank for preparation batch 880-64861 and analytical batch 880-64850 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-64795 and analytical batch 880-64889 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: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

**Client Sample ID: FS12**

**Lab Sample ID: 890-5456-1**

Date Collected: 10/13/23 06:40

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:31 | 1       |
| Toluene             | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:31 | 1       |
| Ethylbenzene        | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:31 | 1       |
| m-Xylene & p-Xylene | <0.00402 | U         | 0.00402 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:31 | 1       |
| o-Xylene            | <0.00201 | U         | 0.00201 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:31 | 1       |
| Xylenes, Total      | <0.00402 | U         | 0.00402 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:31 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 85        |           | 70 - 130 | 10/16/23 10:08 | 10/18/23 14:31 | 1       |
| 1,4-Difluorobenzene (Surr)  | 69        | S1-       | 70 - 130 | 10/16/23 10:08 | 10/18/23 14:31 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00402 | U         | 0.00402 | mg/Kg |   |          | 10/18/23 14:31 | 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 |   |          | 10/16/23 20:33 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.1  | U         | 50.1 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 20:33 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.1  | U         | 50.1 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 20:33 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.1  | U         | 50.1 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 20:33 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 84        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 20:33 | 1       |
| o-Terphenyl    | 87        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 20:33 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 455    |           | 5.00 | mg/Kg |   |          | 10/18/23 00:18 | 1       |

**Client Sample ID: FS13**

**Lab Sample ID: 890-5456-2**

Date Collected: 10/13/23 07:40

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:51 | 1       |
| Toluene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:51 | 1       |
| Ethylbenzene        | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:51 | 1       |
| m-Xylene & p-Xylene | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:51 | 1       |
| o-Xylene            | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:51 | 1       |
| Xylenes, Total      | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 14:51 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 85        |           | 70 - 130 | 10/16/23 10:08 | 10/18/23 14:51 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

**Client Sample ID: FS13**

**Lab Sample ID: 890-5456-2**

Date Collected: 10/13/23 07:40

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 4'

**Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)**

| Surrogate                  | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,4-Difluorobenzene (Surr) | 83        |           | 70 - 130 | 10/16/23 10:08 | 10/18/23 14:51 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00398 | U         | 0.00398 | mg/Kg |   |          | 10/18/23 14:51 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.5  | U         | 50.5 | mg/Kg |   |          | 10/16/23 20:56 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 20:56 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 20:56 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.5  | U         | 50.5 | mg/Kg |   | 10/16/23 10:59 | 10/16/23 20:56 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 85        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 20:56 | 1       |
| o-Terphenyl    | 88        |           | 70 - 130 | 10/16/23 10:59 | 10/16/23 20:56 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 290    |           | 4.99 | mg/Kg |   |          | 10/18/23 00:38 | 1       |

**Client Sample ID: FS14**

**Lab Sample ID: 890-5456-3**

Date Collected: 10/13/23 11:00

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:12 | 1       |
| Toluene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:12 | 1       |
| Ethylbenzene        | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:12 | 1       |
| m-Xylene & p-Xylene | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:12 | 1       |
| o-Xylene            | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:12 | 1       |
| Xylenes, Total      | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:12 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 90        |           | 70 - 130 | 10/16/23 10:08 | 10/18/23 15:12 | 1       |
| 1,4-Difluorobenzene (Surr)  | 62        | S1-       | 70 - 130 | 10/16/23 10:08 | 10/18/23 15:12 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00398 | U         | 0.00398 | mg/Kg |   |          | 10/18/23 15:12 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.9  | U         | 49.9 | mg/Kg |   |          | 10/16/23 21:20 | 1       |

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### Client Sample Results

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

**Client Sample ID: FS14**

**Lab Sample ID: 890-5456-3**

Date Collected: 10/13/23 11:00

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 4'

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9     | U         | 49.9     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 21:20 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.9     | U         | 49.9     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 21:20 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.9     | U         | 49.9     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 21:20 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 84        |           | 70 - 130 |       |   | 10/16/23 10:59 | 10/16/23 21:20 | 1       |
| o-Terphenyl                          | 86        |           | 70 - 130 |       |   | 10/16/23 10:59 | 10/16/23 21:20 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 217    |           | 4.98 | mg/Kg |   |          | 10/18/23 00:45 | 1       |

**Client Sample ID: FS15**

**Lab Sample ID: 890-5456-4**

Date Collected: 10/13/23 11:45

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte                     | Result    | Qualifier | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
| Benzene                     | <0.00200  | U         | 0.00200  | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:32 | 1       |
| Toluene                     | <0.00200  | U         | 0.00200  | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:32 | 1       |
| Ethylbenzene                | <0.00200  | U         | 0.00200  | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:32 | 1       |
| m-Xylene & p-Xylene         | <0.00399  | U         | 0.00399  | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:32 | 1       |
| o-Xylene                    | <0.00200  | U         | 0.00200  | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:32 | 1       |
| Xylenes, Total              | <0.00399  | U         | 0.00399  | mg/Kg |   | 10/16/23 10:08 | 10/18/23 15:32 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 86        |           | 70 - 130 |       |   | 10/16/23 10:08 | 10/18/23 15:32 | 1       |
| 1,4-Difluorobenzene (Surr)  | 73        |           | 70 - 130 |       |   | 10/16/23 10:08 | 10/18/23 15:32 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00399 | U         | 0.00399 | mg/Kg |   |          | 10/18/23 15:32 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.7  | U         | 49.7 | mg/Kg |   |          | 10/16/23 21:45 | 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 | <49.7     | U         | 49.7     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 21:45 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.7     | U         | 49.7     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 21:45 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.7     | U         | 49.7     | mg/Kg |   | 10/16/23 10:59 | 10/16/23 21:45 | 1       |
| Surrogate                            | %Recovery | Qualifier | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
| 1-Chlorooctane                       | 79        |           | 70 - 130 |       |   | 10/16/23 10:59 | 10/16/23 21:45 | 1       |
| o-Terphenyl                          | 83        |           | 70 - 130 |       |   | 10/16/23 10:59 | 10/16/23 21:45 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

**Client Sample ID: FS15**

**Lab Sample ID: 890-5456-4**

Date Collected: 10/13/23 11:45

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 4'

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 180    |           | 5.04 | mg/Kg |   |          | 10/18/23 00:52 | 1       |

**Client Sample ID: SW04**

**Lab Sample ID: 890-5456-5**

Date Collected: 10/13/23 11:05

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 0-4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte                     | Result           | Qualifier        | RL            | Unit  | D | Prepared        | Analyzed        | Dil Fac        |
|-----------------------------|------------------|------------------|---------------|-------|---|-----------------|-----------------|----------------|
| Benzene                     | <0.00200         | U                | 0.00200       | mg/Kg |   | 10/16/23 10:08  | 10/18/23 15:53  | 1              |
| Toluene                     | <0.00200         | U                | 0.00200       | mg/Kg |   | 10/16/23 10:08  | 10/18/23 15:53  | 1              |
| Ethylbenzene                | <0.00200         | U                | 0.00200       | mg/Kg |   | 10/16/23 10:08  | 10/18/23 15:53  | 1              |
| m-Xylene & p-Xylene         | <0.00401         | U                | 0.00401       | mg/Kg |   | 10/16/23 10:08  | 10/18/23 15:53  | 1              |
| o-Xylene                    | <0.00200         | U                | 0.00200       | mg/Kg |   | 10/16/23 10:08  | 10/18/23 15:53  | 1              |
| Xylenes, Total              | <0.00401         | U                | 0.00401       | mg/Kg |   | 10/16/23 10:08  | 10/18/23 15:53  | 1              |
| <b>Surrogate</b>            | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 4-Bromofluorobenzene (Surr) | 97               |                  | 70 - 130      |       |   | 10/16/23 10:08  | 10/18/23 15:53  | 1              |
| 1,4-Difluorobenzene (Surr)  | 65               | S1-              | 70 - 130      |       |   | 10/16/23 10:08  | 10/18/23 15:53  | 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 |   |          | 10/18/23 15:53 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <49.9  | U         | 49.9 | mg/Kg |   |          | 10/17/23 21:17 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result           | Qualifier        | RL            | Unit  | D | Prepared        | Analyzed        | Dil Fac        |
|--------------------------------------|------------------|------------------|---------------|-------|---|-----------------|-----------------|----------------|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9            | U                | 49.9          | mg/Kg |   | 10/17/23 08:47  | 10/17/23 21:17  | 1              |
| Diesel Range Organics (Over C10-C28) | <49.9            | U                | 49.9          | mg/Kg |   | 10/17/23 08:47  | 10/17/23 21:17  | 1              |
| Oll Range Organics (Over C28-C36)    | <49.9            | U                | 49.9          | mg/Kg |   | 10/17/23 08:47  | 10/17/23 21:17  | 1              |
| <b>Surrogate</b>                     | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 1-Chlorooctane                       | 100              |                  | 70 - 130      |       |   | 10/17/23 08:47  | 10/17/23 21:17  | 1              |
| o-Terphenyl                          | 105              |                  | 70 - 130      |       |   | 10/17/23 08:47  | 10/17/23 21:17  | 1              |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 275    |           | 5.02 | mg/Kg |   |          | 10/18/23 00:58 | 1       |

### Client Sample Results

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

**Client Sample ID: SW05**

**Lab Sample ID: 890-5456-6**

Date Collected: 10/13/23 11:25

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 0-4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 17:41 | 1       |
| Toluene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 17:41 | 1       |
| Ethylbenzene        | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 17:41 | 1       |
| m-Xylene & p-Xylene | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 17:41 | 1       |
| o-Xylene            | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 17:41 | 1       |
| Xylenes, Total      | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 17:41 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 92        |           | 70 - 130 | 10/16/23 10:08 | 10/18/23 17:41 | 1       |
| 1,4-Difluorobenzene (Surr)  | 66        | S1-       | 70 - 130 | 10/16/23 10:08 | 10/18/23 17:41 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00398 | U         | 0.00398 | mg/Kg |   |          | 10/18/23 17:41 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.3  | U         | 50.3 | mg/Kg |   |          | 10/17/23 22:23 | 1       |

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.3  | U         | 50.3 | mg/Kg |   | 10/17/23 08:47 | 10/17/23 22:23 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.3  | U         | 50.3 | mg/Kg |   | 10/17/23 08:47 | 10/17/23 22:23 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.3  | U         | 50.3 | mg/Kg |   | 10/17/23 08:47 | 10/17/23 22:23 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 108       |           | 70 - 130 | 10/17/23 08:47 | 10/17/23 22:23 | 1       |
| o-Terphenyl    | 115       |           | 70 - 130 | 10/17/23 08:47 | 10/17/23 22:23 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 199    |           | 5.00 | mg/Kg |   |          | 10/18/23 01:05 | 1       |

**Client Sample ID: SW06**

**Lab Sample ID: 890-5456-7**

Date Collected: 10/13/23 11:35

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 0-4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:01 | 1       |
| Toluene             | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:01 | 1       |
| Ethylbenzene        | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:01 | 1       |
| m-Xylene & p-Xylene | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:01 | 1       |
| o-Xylene            | <0.00199 | U         | 0.00199 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:01 | 1       |
| Xylenes, Total      | <0.00398 | U         | 0.00398 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:01 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 93        |           | 70 - 130 | 10/16/23 10:08 | 10/18/23 18:01 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

**Client Sample ID: SW06**

**Lab Sample ID: 890-5456-7**

Date Collected: 10/13/23 11:35

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 0-4'

**Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)**

| Surrogate                  | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,4-Difluorobenzene (Surr) | 67        | S1-       | 70 - 130 | 10/16/23 10:08 | 10/18/23 18:01 | 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 |   |          | 10/18/23 18:01 | 1       |

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

| Analyte   | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Total TPH | <50.5  | U         | 50.5 | mg/Kg |   |          | 10/17/23 22:45 | 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 | <50.5  | U         | 50.5 | mg/Kg |   | 10/17/23 08:47 | 10/17/23 22:45 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.5  | U         | 50.5 | mg/Kg |   | 10/17/23 08:47 | 10/17/23 22:45 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.5  | U         | 50.5 | mg/Kg |   | 10/17/23 08:47 | 10/17/23 22:45 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 118       |           | 70 - 130 | 10/17/23 08:47 | 10/17/23 22:45 | 1       |
| o-Terphenyl    | 124       |           | 70 - 130 | 10/17/23 08:47 | 10/17/23 22:45 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 370    |           | 4.97 | mg/Kg |   |          | 10/18/23 01:11 | 1       |

**Client Sample ID: SW07**

**Lab Sample ID: 890-5456-8**

Date Collected: 10/13/23 11:40

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 0-4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:22 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:22 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:22 | 1       |
| m-Xylene & p-Xylene | <0.00399 | U         | 0.00399 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:22 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:22 | 1       |
| Xylenes, Total      | <0.00399 | U         | 0.00399 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 18:22 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 90        |           | 70 - 130 | 10/16/23 10:08 | 10/18/23 18:22 | 1       |
| 1,4-Difluorobenzene (Surr)  | 61        | S1-       | 70 - 130 | 10/16/23 10:08 | 10/18/23 18:22 | 1       |

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00399 | U         | 0.00399 | mg/Kg |   |          | 10/18/23 18:22 | 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 |   |          | 10/17/23 23:07 | 1       |

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### Client Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

**Client Sample ID: SW07**

**Lab Sample ID: 890-5456-8**

Date Collected: 10/13/23 11:40

Matrix: Solid

Date Received: 10/13/23 13:42

Sample Depth: 0-4'

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

| Analyte                              | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <50.1  | U         | 50.1 | mg/Kg |   | 10/17/23 08:47 | 10/17/23 23:07 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.1  | U         | 50.1 | mg/Kg |   | 10/17/23 08:47 | 10/17/23 23:07 | 1       |
| Oll Range Organics (Over C28-C36)    | <50.1  | U         | 50.1 | mg/Kg |   | 10/17/23 08:47 | 10/17/23 23:07 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 104       |           | 70 - 130 | 10/17/23 08:47 | 10/17/23 23:07 | 1       |
| o-Terphenyl    | 113       |           | 70 - 130 | 10/17/23 08:47 | 10/17/23 23:07 | 1       |

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 244    |           | 4.95 | mg/Kg |   |          | 10/18/23 01:18 | 1       |

## Surrogate Summary

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

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

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                   |
|--------------------|------------------------|--|-------------------|
|                    |                        | BFB1<br>(70-130)                               | DFBZ1<br>(70-130) |
| 890-5456-1         | FS12                   | 85   | 69 S1-            |
| 890-5456-1 MS      | FS12                   | 127  | 110               |
| 890-5456-1 MSD     | FS12                   | 125  | 107               |
| 890-5456-2         | FS13                   | 85   | 83                |
| 890-5456-3         | FS14                   | 90   | 62 S1-            |
| 890-5456-4         | FS15                   | 86   | 73                |
| 890-5456-5         | SW04                   | 97   | 65 S1-            |
| 890-5456-6         | SW05                   | 92   | 66 S1-            |
| 890-5456-7         | SW06                   | 93   | 67 S1-            |
| 890-5456-8         | SW07                   | 90   | 61 S1-            |
| LCS 880-64787/1-A  | Lab Control Sample     | 122  | 106               |
| LCSD 880-64787/2-A | Lab Control Sample Dup | 124  | 112               |
| MB 880-64787/5-A   | Method Blank           | 77   | 80                |

**Surrogate Legend**

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

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

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                   |
|--------------------|------------------------|--|-------------------|
|                    |                        | 1CO1<br>(70-130)                               | OTPH1<br>(70-130) |
| 890-5456-1         | FS12                   | 84   | 87                |
| 890-5456-2         | FS13                   | 85   | 88                |
| 890-5456-3         | FS14                   | 84   | 86                |
| 890-5456-4         | FS15                   | 79   | 83                |
| 890-5456-5         | SW04                   | 100  | 105               |
| 890-5456-5 MS      | SW04                   | 117  | 111               |
| 890-5456-5 MSD     | SW04                   | 116  | 108               |
| 890-5456-6         | SW05                   | 108  | 115               |
| 890-5456-7         | SW06                   | 118  | 124               |
| 890-5456-8         | SW07                   | 104  | 113               |
| 890-5457-A-1-F MS  | Matrix Spike           | 82   | 72                |
| 890-5457-A-1-G MSD | Matrix Spike Duplicate | 82   | 71                |
| LCS 880-64788/2-A  | Lab Control Sample     | 97   | 99                |
| LCS 880-64861/2-A  | Lab Control Sample     | 85   | 87                |
| LCSD 880-64788/3-A | Lab Control Sample Dup | 99   | 93                |
| LCSD 880-64861/3-A | Lab Control Sample Dup | 85   | 87                |
| MB 880-64788/1-A   | Method Blank           | 93   | 98                |
| MB 880-64861/1-A   | Method Blank           | 143 S1+  | 153 S1+           |

**Surrogate Legend**

1CO = 1-Chlorooctane  
OTPH = o-Terphenyl

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### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

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

Lab Sample ID: MB 880-64787/5-A  
 Matrix: Solid  
 Analysis Batch: 64934

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 64787

| Analyte             | MB Result | MB Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|-----------|--------------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 11:35 | 1       |
| Toluene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 11:35 | 1       |
| Ethylbenzene        | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 11:35 | 1       |
| m-Xylene & p-Xylene | <0.00400  | U            | 0.00400 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 11:35 | 1       |
| o-Xylene            | <0.00200  | U            | 0.00200 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 11:35 | 1       |
| Xylenes, Total      | <0.00400  | U            | 0.00400 | mg/Kg |   | 10/16/23 10:08 | 10/18/23 11:35 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 77           |              | 70 - 130 | 10/16/23 10:08 | 10/18/23 11:35 | 1       |
| 1,4-Difluorobenzene (Surr)  | 80           |              | 70 - 130 | 10/16/23 10:08 | 10/18/23 11:35 | 1       |

Lab Sample ID: LCS 880-64787/1-A  
 Matrix: Solid  
 Analysis Batch: 64934

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 64787

| Analyte             | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------------------|-------------|------------|---------------|-------|---|------|-------------|
| Benzene             | 0.100       | 0.1128     |               | mg/Kg |   | 113  | 70 - 130    |
| Toluene             | 0.100       | 0.1093     |               | mg/Kg |   | 109  | 70 - 130    |
| Ethylbenzene        | 0.100       | 0.1129     |               | mg/Kg |   | 113  | 70 - 130    |
| m-Xylene & p-Xylene | 0.200       | 0.2488     |               | mg/Kg |   | 124  | 70 - 130    |
| o-Xylene            | 0.100       | 0.1241     |               | mg/Kg |   | 124  | 70 - 130    |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 122           |               | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 106           |               | 70 - 130 |

Lab Sample ID: LCSD 880-64787/2-A  
 Matrix: Solid  
 Analysis Batch: 64934

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 64787

| Analyte             | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | Limit |
|---------------------|-------------|-------------|----------------|-------|---|------|-------------|-----|-------|
| Benzene             | 0.100       | 0.1041      |                | mg/Kg |   | 104  | 70 - 130    | 8   | 35    |
| Toluene             | 0.100       | 0.09921     |                | mg/Kg |   | 99   | 70 - 130    | 10  | 35    |
| Ethylbenzene        | 0.100       | 0.1040      |                | mg/Kg |   | 104  | 70 - 130    | 8   | 35    |
| m-Xylene & p-Xylene | 0.200       | 0.2295      |                | mg/Kg |   | 115  | 70 - 130    | 8   | 35    |
| o-Xylene            | 0.100       | 0.1149      |                | mg/Kg |   | 115  | 70 - 130    | 8   | 35    |

| Surrogate                   | LCSD %Recovery | LCSD Qualifier | Limits   |
|-----------------------------|----------------|----------------|----------|
| 4-Bromofluorobenzene (Surr) | 124            |                | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 112            |                | 70 - 130 |

Lab Sample ID: 890-5456-1 MS  
 Matrix: Solid  
 Analysis Batch: 64934

Client Sample ID: FS12  
 Prep Type: Total/NA  
 Prep Batch: 64787

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Benzene | <0.00201      | U                | 0.0998      | 0.1005    |              | mg/Kg |   | 101  | 70 - 130    |
| Toluene | <0.00201      | U                | 0.0998      | 0.09718   |              | mg/Kg |   | 97   | 70 - 130    |

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### QC Sample Results

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

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

Lab Sample ID: 890-5456-1 MS  
Matrix: Solid  
Analysis Batch: 64934

Client Sample ID: FS12  
Prep Type: Total/NA  
Prep Batch: 64787

| Analyte             | Sample   | Sample    | Spike Added | MS     | MS        | Unit  | D | %Rec | %Rec Limits |
|---------------------|----------|-----------|-------------|--------|-----------|-------|---|------|-------------|
|                     | Result   | Qualifier |             | Result | Qualifier |       |   |      |             |
| Ethylbenzene        | <0.00201 | U         | 0.0998      | 0.1087 |           | mg/Kg |   | 109  | 70 - 130    |
| m-Xylene & p-Xylene | <0.00402 | U         | 0.200       | 0.2322 |           | mg/Kg |   | 116  | 70 - 130    |
| o-Xylene            | <0.00201 | U         | 0.0998      | 0.1151 |           | mg/Kg |   | 115  | 70 - 130    |

| Surrogate                   | MS        | MS        | Limits   |
|-----------------------------|-----------|-----------|----------|
|                             | %Recovery | Qualifier |          |
| 4-Bromofluorobenzene (Surr) | 127       |           | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 110       |           | 70 - 130 |

Lab Sample ID: 890-5456-1 MSD  
Matrix: Solid  
Analysis Batch: 64934

Client Sample ID: FS12  
Prep Type: Total/NA  
Prep Batch: 64787

| Analyte             | Sample   | Sample    | Spike Added | MSD     | MSD       | Unit  | D | %Rec | %Rec Limits | RPD | Limit |
|---------------------|----------|-----------|-------------|---------|-----------|-------|---|------|-------------|-----|-------|
|                     | Result   | Qualifier |             | Result  | Qualifier |       |   |      |             |     |       |
| Benzene             | <0.00201 | U         | 0.0996      | 0.09711 |           | mg/Kg |   | 98   | 70 - 130    | 3   | 35    |
| Toluene             | <0.00201 | U         | 0.0996      | 0.09323 |           | mg/Kg |   | 94   | 70 - 130    | 4   | 35    |
| Ethylbenzene        | <0.00201 | U         | 0.0996      | 0.09923 |           | mg/Kg |   | 100  | 70 - 130    | 9   | 35    |
| m-Xylene & p-Xylene | <0.00402 | U         | 0.199       | 0.2167  |           | mg/Kg |   | 109  | 70 - 130    | 7   | 35    |
| o-Xylene            | <0.00201 | U         | 0.0996      | 0.1073  |           | mg/Kg |   | 108  | 70 - 130    | 7   | 35    |

| Surrogate                   | MSD       | MSD       | Limits   |
|-----------------------------|-----------|-----------|----------|
|                             | %Recovery | Qualifier |          |
| 4-Bromofluorobenzene (Surr) | 125       |           | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 107       |           | 70 - 130 |

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

Lab Sample ID: MB 880-64788/1-A  
Matrix: Solid  
Analysis Batch: 64753

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 64788

| Analyte                              | MB     | MB        | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|
|                                      | Result | Qualifier |      |       |   |                |                |         |
| Gasoline Range Organics (GRO)-C6-C10 | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 08:00 | 10/16/23 08:49 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 08:00 | 10/16/23 08:49 | 1       |
| Oll Range Organics (Over C28-C36)    | <50.0  | U         | 50.0 | mg/Kg |   | 10/16/23 08:00 | 10/16/23 08:49 | 1       |

| Surrogate      | MB        | MB        | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
|                | %Recovery | Qualifier |          |                |                |         |
| 1-Chlorooctane | 93        |           | 70 - 130 | 10/16/23 08:00 | 10/16/23 08:49 | 1       |
| o-Terphenyl    | 98        |           | 70 - 130 | 10/16/23 08:00 | 10/16/23 08:49 | 1       |

Lab Sample ID: LCS 880-64788/2-A  
Matrix: Solid  
Analysis Batch: 64753

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 64788

| Analyte                              | Spike Added | LCS    | LCS       | Unit  | D | %Rec | %Rec Limits |
|--------------------------------------|-------------|--------|-----------|-------|---|------|-------------|
|                                      |             | Result | Qualifier |       |   |      |             |
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 881.8  |           | mg/Kg |   | 88   | 70 - 130    |
| Diesel Range Organics (Over C10-C28) | 1000        | 915.4  |           | mg/Kg |   | 92   | 70 - 130    |

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### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

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

**Lab Sample ID: LCS 880-64788/2-A**  
**Matrix: Solid**  
**Analysis Batch: 64753**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 64788**

| Surrogate      | LCS       |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 97        |           | 70 - 130 |
| o-Terphenyl    | 99        |           | 70 - 130 |

**Lab Sample ID: LCSD 880-64788/3-A**  
**Matrix: Solid**  
**Analysis Batch: 64753**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 64788**

| Analyte                              | Spike Added | LCSD   |           | Unit  | D | %Rec | %Rec     |     | RPD | Limit |
|--------------------------------------|-------------|--------|-----------|-------|---|------|----------|-----|-----|-------|
|                                      |             | Result | Qualifier |       |   |      | Limits   | RPD |     |       |
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 866.4  |           | mg/Kg |   | 87   | 70 - 130 | 2   | 20  |       |
| Diesel Range Organics (Over C10-C28) | 1000        | 877.5  |           | mg/Kg |   | 88   | 70 - 130 | 4   | 20  |       |

| Surrogate      | LCSD      |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 99        |           | 70 - 130 |
| o-Terphenyl    | 93        |           | 70 - 130 |

**Lab Sample ID: 890-5457-A-1-F MS**  
**Matrix: Solid**  
**Analysis Batch: 64753**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 64788**

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MS     |           | Unit  | D | %Rec | %Rec     |     |
|--------------------------------------|---------------|------------------|-------------|--------|-----------|-------|---|------|----------|-----|
|                                      |               |                  |             | Result | Qualifier |       |   |      | Limits   | RPD |
| Gasoline Range Organics (GRO)-C6-C10 | <49.9         | U                | 991         | 734.8  |           | mg/Kg |   | 72   | 70 - 130 |     |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 991         | 703.9  |           | mg/Kg |   | 71   | 70 - 130 |     |

| Surrogate      | MS        |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 82        |           | 70 - 130 |
| o-Terphenyl    | 72        |           | 70 - 130 |

**Lab Sample ID: 890-5457-A-1-G MSD**  
**Matrix: Solid**  
**Analysis Batch: 64753**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 64788**

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MSD    |           | Unit  | D | %Rec | %Rec     |     | RPD | Limit |
|--------------------------------------|---------------|------------------|-------------|--------|-----------|-------|---|------|----------|-----|-----|-------|
|                                      |               |                  |             | Result | Qualifier |       |   |      | Limits   | RPD |     |       |
| Gasoline Range Organics (GRO)-C6-C10 | <49.9         | U                | 991         | 733.4  |           | mg/Kg |   | 71   | 70 - 130 | 0   | 20  |       |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 991         | 712.2  |           | mg/Kg |   | 72   | 70 - 130 | 1   | 20  |       |

| Surrogate      | MSD       |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 82        |           | 70 - 130 |
| o-Terphenyl    | 71        |           | 70 - 130 |

### QC Sample Results

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

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

Lab Sample ID: MB 880-64861/1-A  
 Matrix: Solid  
 Analysis Batch: 64850

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 64861

| Analyte                              | MB MB     |           | RL       | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------------|-----------|-----------|----------|-------|---|----------------|----------------|---------|
|                                      | Result    | Qualifier |          |       |   |                |                |         |
| Gasoline Range Organics (GRO)-C6-C10 | <50.0     | U         | 50.0     | mg/Kg |   | 10/17/23 08:47 | 10/17/23 20:10 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0     | U         | 50.0     | mg/Kg |   | 10/17/23 08:47 | 10/17/23 20:10 | 1       |
| Oll Range Organics (Over C28-C36)    | <50.0     | U         | 50.0     | mg/Kg |   | 10/17/23 08:47 | 10/17/23 20:10 | 1       |
| Surrogate                            | MB MB     |           | Limits   |       |   | Prepared       | Analyzed       | Dil Fac |
|                                      | %Recovery | Qualifier |          |       |   |                |                |         |
| 1-Chlorooctane                       | 143       | S1+       | 70 - 130 |       |   | 10/17/23 08:47 | 10/17/23 20:10 | 1       |
| o-Terphenyl                          | 153       | S1+       | 70 - 130 |       |   | 10/17/23 08:47 | 10/17/23 20:10 | 1       |

Lab Sample ID: LCS 880-64861/2-A  
 Matrix: Solid  
 Analysis Batch: 64850

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 64861

| Analyte                              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|--------------------------------------|-------------|------------|---------------|-------|---|------|-------------|
|                                      |             |            |               |       |   |      |             |
| Diesel Range Organics (Over C10-C28) | 1000        | 978.9      |               | mg/Kg |   | 98   | 70 - 130    |
| Surrogate                            | LCS LCS     |            | Limits        |       |   |      |             |
|                                      | %Recovery   | Qualifier  |               |       |   |      |             |
| 1-Chlorooctane                       | 85          |            | 70 - 130      |       |   |      |             |
| o-Terphenyl                          | 87          |            | 70 - 130      |       |   |      |             |

Lab Sample ID: LCSD 880-64861/3-A  
 Matrix: Solid  
 Analysis Batch: 64850

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 64861

| Analyte                              | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD |       |
|--------------------------------------|-------------|-------------|----------------|-------|---|------|-------------|-----|-------|
|                                      |             |             |                |       |   |      |             | RPD | Limit |
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 968.9       |                | mg/Kg |   | 97   | 70 - 130    | 1   | 20    |
| Diesel Range Organics (Over C10-C28) | 1000        | 927.1       |                | mg/Kg |   | 93   | 70 - 130    | 5   | 20    |
| Surrogate                            | LCSD LCSD   |             | Limits         |       |   |      |             |     |       |
|                                      | %Recovery   | Qualifier   |                |       |   |      |             |     |       |
| 1-Chlorooctane                       | 85          |             | 70 - 130       |       |   |      |             |     |       |
| o-Terphenyl                          | 87          |             | 70 - 130       |       |   |      |             |     |       |

Lab Sample ID: 890-5456-5 MS  
 Matrix: Solid  
 Analysis Batch: 64850

Client Sample ID: SW04  
 Prep Type: Total/NA  
 Prep Batch: 64861

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|--------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
|                                      |               |                  |             |           |              |       |   |      |             |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 991         | 1054      |              | mg/Kg |   | 104  | 70 - 130    |

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### QC Sample Results

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

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

Lab Sample ID: 890-5456-5 MS  
Matrix: Solid  
Analysis Batch: 64850

Client Sample ID: SW04  
Prep Type: Total/NA  
Prep Batch: 64861

| Surrogate      | %Recovery | MS MS<br>Qualifier | Limits   |
|----------------|-----------|--------------------|----------|
| 1-Chlorooctane | 117       |                    | 70 - 130 |
| o-Terphenyl    | 111       |                    | 70 - 130 |

Lab Sample ID: 890-5456-5 MSD  
Matrix: Solid  
Analysis Batch: 64850

Client Sample ID: SW04  
Prep Type: Total/NA  
Prep Batch: 64861

| 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                | 991         | 914.8      |               | mg/Kg |   | 89   | 70 - 130    | 0   | 20        |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 991         | 1058       |               | mg/Kg |   | 104  | 70 - 130    | 0   | 20        |

| Surrogate      | %Recovery | MSD MSD<br>Qualifier | Limits   |
|----------------|-----------|----------------------|----------|
| 1-Chlorooctane | 116       |                      | 70 - 130 |
| o-Terphenyl    | 108       |                      | 70 - 130 |

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-64795/1-A  
Matrix: Solid  
Analysis Batch: 64889

Client Sample ID: Method Blank  
Prep Type: Soluble

| Analyte  | MB Result | MB Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|-----------|--------------|------|-------|---|----------|----------------|---------|
| Chloride | <5.00     | U            | 5.00 | mg/Kg |   |          | 10/17/23 21:58 | 1       |

Lab Sample ID: LCS 880-64795/2-A  
Matrix: Solid  
Analysis Batch: 64889

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|-------|---|------|-------------|
| Chloride | 250         | 235.5      |               | mg/Kg |   | 94   | 90 - 110    |

Lab Sample ID: LCSD 880-64795/3-A  
Matrix: Solid  
Analysis Batch: 64889

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         | 235.4       |                | mg/Kg |   | 94   | 90 - 110    | 0   | 20        |

Lab Sample ID: 880-34442-A-1-C MS  
Matrix: Solid  
Analysis Batch: 64889

Client Sample ID: Matrix Spike  
Prep Type: Soluble

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|-------------|
| Chloride | 136           | F1               | 248         | 353.3     | F1           | mg/Kg |   | 88   | 90 - 110    |

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### QC Sample Results

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

#### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-34442-A-1-D MSD  
Matrix: Solid  
Analysis Batch: 64889

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Soluble

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|-------------|-----|-----------|
| Chloride | 136           | F1               | 248         | 354.4      | F1            | mg/Kg |   | 88   | 90 - 110    | 0   | 20        |

- 1
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- 14

### QC Association Summary

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

#### GC VOA

##### Prep Batch: 64787

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-5456-1         | FS12                   | Total/NA  | Solid  | 5035   |            |
| 890-5456-2         | FS13                   | Total/NA  | Solid  | 5035   |            |
| 890-5456-3         | FS14                   | Total/NA  | Solid  | 5035   |            |
| 890-5456-4         | FS15                   | Total/NA  | Solid  | 5035   |            |
| 890-5456-5         | SW04                   | Total/NA  | Solid  | 5035   |            |
| 890-5456-6         | SW05                   | Total/NA  | Solid  | 5035   |            |
| 890-5456-7         | SW06                   | Total/NA  | Solid  | 5035   |            |
| 890-5456-8         | SW07                   | Total/NA  | Solid  | 5035   |            |
| MB 880-64787/5-A   | Method Blank           | Total/NA  | Solid  | 5035   |            |
| LCS 880-64787/1-A  | Lab Control Sample     | Total/NA  | Solid  | 5035   |            |
| LCSD 880-64787/2-A | Lab Control Sample Dup | Total/NA  | Solid  | 5035   |            |
| 890-5456-1 MS      | FS12                   | Total/NA  | Solid  | 5035   |            |
| 890-5456-1 MSD     | FS12                   | Total/NA  | Solid  | 5035   |            |

##### Analysis Batch: 64934

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-5456-1         | FS12                   | Total/NA  | Solid  | 8021B  | 64787      |
| 890-5456-2         | FS13                   | Total/NA  | Solid  | 8021B  | 64787      |
| 890-5456-3         | FS14                   | Total/NA  | Solid  | 8021B  | 64787      |
| 890-5456-4         | FS15                   | Total/NA  | Solid  | 8021B  | 64787      |
| 890-5456-5         | SW04                   | Total/NA  | Solid  | 8021B  | 64787      |
| 890-5456-6         | SW05                   | Total/NA  | Solid  | 8021B  | 64787      |
| 890-5456-7         | SW06                   | Total/NA  | Solid  | 8021B  | 64787      |
| 890-5456-8         | SW07                   | Total/NA  | Solid  | 8021B  | 64787      |
| MB 880-64787/5-A   | Method Blank           | Total/NA  | Solid  | 8021B  | 64787      |
| LCS 880-64787/1-A  | Lab Control Sample     | Total/NA  | Solid  | 8021B  | 64787      |
| LCSD 880-64787/2-A | Lab Control Sample Dup | Total/NA  | Solid  | 8021B  | 64787      |
| 890-5456-1 MS      | FS12                   | Total/NA  | Solid  | 8021B  | 64787      |
| 890-5456-1 MSD     | FS12                   | Total/NA  | Solid  | 8021B  | 64787      |

##### Analysis Batch: 65083

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method     | Prep Batch |
|---------------|------------------|-----------|--------|------------|------------|
| 890-5456-1    | FS12             | Total/NA  | Solid  | Total BTEX |            |
| 890-5456-2    | FS13             | Total/NA  | Solid  | Total BTEX |            |
| 890-5456-3    | FS14             | Total/NA  | Solid  | Total BTEX |            |
| 890-5456-4    | FS15             | Total/NA  | Solid  | Total BTEX |            |
| 890-5456-5    | SW04             | Total/NA  | Solid  | Total BTEX |            |
| 890-5456-6    | SW05             | Total/NA  | Solid  | Total BTEX |            |
| 890-5456-7    | SW06             | Total/NA  | Solid  | Total BTEX |            |
| 890-5456-8    | SW07             | Total/NA  | Solid  | Total BTEX |            |

#### GC Semi VOA

##### Analysis Batch: 64753

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method   | Prep Batch |
|-------------------|--------------------|-----------|--------|----------|------------|
| 890-5456-1        | FS12               | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5456-2        | FS13               | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5456-3        | FS14               | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5456-4        | FS15               | Total/NA  | Solid  | 8015B NM | 64788      |
| MB 880-64788/1-A  | Method Blank       | Total/NA  | Solid  | 8015B NM | 64788      |
| LCS 880-64788/2-A | Lab Control Sample | Total/NA  | Solid  | 8015B NM | 64788      |

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### QC Association Summary

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

#### GC Semi VOA (Continued)

##### Analysis Batch: 64753 (Continued)

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|--------------------|------------------------|-----------|--------|----------|------------|
| LCSD 880-64788/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5457-A-1-F MS  | Matrix Spike           | Total/NA  | Solid  | 8015B NM | 64788      |
| 890-5457-A-1-G MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015B NM | 64788      |

##### Prep Batch: 64788

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method      | Prep Batch |
|--------------------|------------------------|-----------|--------|-------------|------------|
| 890-5456-1         | FS12                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5456-2         | FS13                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5456-3         | FS14                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5456-4         | FS15                   | Total/NA  | Solid  | 8015NM Prep |            |
| MB 880-64788/1-A   | Method Blank           | Total/NA  | Solid  | 8015NM Prep |            |
| LCS 880-64788/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8015NM Prep |            |
| LCSD 880-64788/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5457-A-1-F MS  | Matrix Spike           | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5457-A-1-G MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015NM Prep |            |

##### Analysis Batch: 64850

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|--------------------|------------------------|-----------|--------|----------|------------|
| 890-5456-5         | SW04                   | Total/NA  | Solid  | 8015B NM | 64861      |
| 890-5456-6         | SW05                   | Total/NA  | Solid  | 8015B NM | 64861      |
| 890-5456-7         | SW06                   | Total/NA  | Solid  | 8015B NM | 64861      |
| 890-5456-8         | SW07                   | Total/NA  | Solid  | 8015B NM | 64861      |
| MB 880-64861/1-A   | Method Blank           | Total/NA  | Solid  | 8015B NM | 64861      |
| LCS 880-64861/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8015B NM | 64861      |
| LCSD 880-64861/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8015B NM | 64861      |
| 890-5456-5 MS      | SW04                   | Total/NA  | Solid  | 8015B NM | 64861      |
| 890-5456-5 MSD     | SW04                   | Total/NA  | Solid  | 8015B NM | 64861      |

##### Prep Batch: 64861

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method      | Prep Batch |
|--------------------|------------------------|-----------|--------|-------------|------------|
| 890-5456-5         | SW04                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5456-6         | SW05                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5456-7         | SW06                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5456-8         | SW07                   | Total/NA  | Solid  | 8015NM Prep |            |
| MB 880-64861/1-A   | Method Blank           | Total/NA  | Solid  | 8015NM Prep |            |
| LCS 880-64861/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8015NM Prep |            |
| LCSD 880-64861/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5456-5 MS      | SW04                   | Total/NA  | Solid  | 8015NM Prep |            |
| 890-5456-5 MSD     | SW04                   | Total/NA  | Solid  | 8015NM Prep |            |

##### Analysis Batch: 64873

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method  | Prep Batch |
|---------------|------------------|-----------|--------|---------|------------|
| 890-5456-1    | FS12             | Total/NA  | Solid  | 8015 NM |            |
| 890-5456-2    | FS13             | Total/NA  | Solid  | 8015 NM |            |
| 890-5456-3    | FS14             | Total/NA  | Solid  | 8015 NM |            |
| 890-5456-4    | FS15             | Total/NA  | Solid  | 8015 NM |            |
| 890-5456-5    | SW04             | Total/NA  | Solid  | 8015 NM |            |
| 890-5456-6    | SW05             | Total/NA  | Solid  | 8015 NM |            |
| 890-5456-7    | SW06             | Total/NA  | Solid  | 8015 NM |            |
| 890-5456-8    | SW07             | Total/NA  | Solid  | 8015 NM |            |

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### QC Association Summary

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

#### HPLC/IC

##### Leach Batch: 64795

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|---------------------|------------------------|-----------|--------|----------|------------|
| 890-5456-1          | FS12                   | Soluble   | Solid  | DI Leach |            |
| 890-5456-2          | FS13                   | Soluble   | Solid  | DI Leach |            |
| 890-5456-3          | FS14                   | Soluble   | Solid  | DI Leach |            |
| 890-5456-4          | FS15                   | Soluble   | Solid  | DI Leach |            |
| 890-5456-5          | SW04                   | Soluble   | Solid  | DI Leach |            |
| 890-5456-6          | SW05                   | Soluble   | Solid  | DI Leach |            |
| 890-5456-7          | SW06                   | Soluble   | Solid  | DI Leach |            |
| 890-5456-8          | SW07                   | Soluble   | Solid  | DI Leach |            |
| MB 880-64795/1-A    | Method Blank           | Soluble   | Solid  | DI Leach |            |
| LCS 880-64795/2-A   | Lab Control Sample     | Soluble   | Solid  | DI Leach |            |
| LCSD 880-64795/3-A  | Lab Control Sample Dup | Soluble   | Solid  | DI Leach |            |
| 880-34442-A-1-C MS  | Matrix Spike           | Soluble   | Solid  | DI Leach |            |
| 880-34442-A-1-D MSD | Matrix Spike Duplicate | Soluble   | Solid  | DI Leach |            |

##### Analysis Batch: 64889

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 890-5456-1          | FS12                   | Soluble   | Solid  | 300.0  | 64795      |
| 890-5456-2          | FS13                   | Soluble   | Solid  | 300.0  | 64795      |
| 890-5456-3          | FS14                   | Soluble   | Solid  | 300.0  | 64795      |
| 890-5456-4          | FS15                   | Soluble   | Solid  | 300.0  | 64795      |
| 890-5456-5          | SW04                   | Soluble   | Solid  | 300.0  | 64795      |
| 890-5456-6          | SW05                   | Soluble   | Solid  | 300.0  | 64795      |
| 890-5456-7          | SW06                   | Soluble   | Solid  | 300.0  | 64795      |
| 890-5456-8          | SW07                   | Soluble   | Solid  | 300.0  | 64795      |
| MB 880-64795/1-A    | Method Blank           | Soluble   | Solid  | 300.0  | 64795      |
| LCS 880-64795/2-A   | Lab Control Sample     | Soluble   | Solid  | 300.0  | 64795      |
| LCSD 880-64795/3-A  | Lab Control Sample Dup | Soluble   | Solid  | 300.0  | 64795      |
| 880-34442-A-1-C MS  | Matrix Spike           | Soluble   | Solid  | 300.0  | 64795      |
| 880-34442-A-1-D MSD | Matrix Spike Duplicate | Soluble   | Solid  | 300.0  | 64795      |

### Lab Chronicle

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

**Client Sample ID: FS12**

**Lab Sample ID: 890-5456-1**

Date Collected: 10/13/23 06:40

Matrix: Solid

Date Received: 10/13/23 13:42

| 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         | 64787        | 10/16/23 10:08       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64934        | 10/18/23 14:31       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 65083        | 10/18/23 14:31       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64873        | 10/16/23 20:33       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.98 g         | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 20:33       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5 g            | 50 mL        | 64795        | 10/16/23 11:51       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64889        | 10/18/23 00:18       | CH      | EET MID |

**Client Sample ID: FS13**

**Lab Sample ID: 890-5456-2**

Date Collected: 10/13/23 07:40

Matrix: Solid

Date Received: 10/13/23 13:42

| 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         | 64787        | 10/16/23 10:08       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64934        | 10/18/23 14:51       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 65083        | 10/18/23 14:51       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64873        | 10/16/23 20:56       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.90 g         | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 20:56       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.01 g         | 50 mL        | 64795        | 10/16/23 11:51       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64889        | 10/18/23 00:38       | CH      | EET MID |

**Client Sample ID: FS14**

**Lab Sample ID: 890-5456-3**

Date Collected: 10/13/23 11:00

Matrix: Solid

Date Received: 10/13/23 13:42

| 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         | 64787        | 10/16/23 10:08       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64934        | 10/18/23 15:12       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 65083        | 10/18/23 15:12       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64873        | 10/16/23 21:20       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.03 g        | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 21:20       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.02 g         | 50 mL        | 64795        | 10/16/23 11:51       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64889        | 10/18/23 00:45       | CH      | EET MID |

**Client Sample ID: FS15**

**Lab Sample ID: 890-5456-4**

Date Collected: 10/13/23 11:45

Matrix: Solid

Date Received: 10/13/23 13:42

| 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         | 64787        | 10/16/23 10:08       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64934        | 10/18/23 15:32       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 65083        | 10/18/23 15:32       | SM      | EET MID |

Eurofins Carlsbad

### Lab Chronicle

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

**Client Sample ID: FS15**

**Lab Sample ID: 890-5456-4**

Date Collected: 10/13/23 11:45

Matrix: Solid

Date Received: 10/13/23 13:42

| 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          |                |              | 64873        | 10/16/23 21:45       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.07 g        | 10 mL        | 64788        | 10/16/23 10:59       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64753        | 10/16/23 21:45       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.96 g         | 50 mL        | 64795        | 10/16/23 11:51       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64889        | 10/18/23 00:52       | CH      | EET MID |

**Client Sample ID: SW04**

**Lab Sample ID: 890-5456-5**

Date Collected: 10/13/23 11:05

Matrix: Solid

Date Received: 10/13/23 13:42

| 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         | 64787        | 10/16/23 10:08       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64934        | 10/18/23 15:53       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 65083        | 10/18/23 15:53       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64873        | 10/17/23 21:17       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 10.02 g        | 10 mL        | 64861        | 10/17/23 08:47       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64850        | 10/17/23 21:17       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 4.98 g         | 50 mL        | 64795        | 10/16/23 11:51       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64889        | 10/18/23 00:58       | CH      | EET MID |

**Client Sample ID: SW05**

**Lab Sample ID: 890-5456-6**

Date Collected: 10/13/23 11:25

Matrix: Solid

Date Received: 10/13/23 13:42

| 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         | 64787        | 10/16/23 10:08       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64934        | 10/18/23 17:41       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 65083        | 10/18/23 17:41       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64873        | 10/17/23 22:23       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.94 g         | 10 mL        | 64861        | 10/17/23 08:47       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64850        | 10/17/23 22:23       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5 g            | 50 mL        | 64795        | 10/16/23 11:51       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64889        | 10/18/23 01:05       | CH      | EET MID |

**Client Sample ID: SW06**

**Lab Sample ID: 890-5456-7**

Date Collected: 10/13/23 11:35

Matrix: Solid

Date Received: 10/13/23 13:42

| 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         | 64787        | 10/16/23 10:08       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64934        | 10/18/23 18:01       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 65083        | 10/18/23 18:01       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64873        | 10/17/23 22:45       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.90 g         | 10 mL        | 64861        | 10/17/23 08:47       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64850        | 10/17/23 22:45       | SM      | EET MID |

Eurofins Carlsbad

### Lab Chronicle

Client: Ensolum  
 Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
 SDG: 03C1558276

**Client Sample ID: SW06**

**Lab Sample ID: 890-5456-7**

Date Collected: 10/13/23 11:35

Matrix: Solid

Date Received: 10/13/23 13:42

| 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        | 64795        | 10/16/23 11:51       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64889        | 10/18/23 01:11       | CH      | EET MID |

**Client Sample ID: SW07**

**Lab Sample ID: 890-5456-8**

Date Collected: 10/13/23 11:40

Matrix: Solid

Date Received: 10/13/23 13:42

| 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         | 64787        | 10/16/23 10:08       | MNR     | EET MID |
| Total/NA  | Analysis   | 8021B        |     | 1          | 5 mL           | 5 mL         | 64934        | 10/18/23 18:22       | MNR     | EET MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1          |                |              | 65083        | 10/18/23 18:22       | SM      | EET MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1          |                |              | 64873        | 10/17/23 23:07       | SM      | EET MID |
| Total/NA  | Prep       | 8015NM Prep  |     |            | 9.99 g         | 10 mL        | 64861        | 10/17/23 08:47       | TKC     | EET MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1          | 1 uL           | 1 uL         | 64850        | 10/17/23 23:07       | SM      | EET MID |
| Soluble   | Leach      | DI Leach     |     |            | 5.05 g         | 50 mL        | 64795        | 10/16/23 11:51       | SMC     | EET MID |
| Soluble   | Analysis   | 300.0        |     | 1          |                |              | 64889        | 10/18/23 01:18       | CH      | EET MID |

**Laboratory References:**

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

### Accreditation/Certification Summary

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

#### 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 |

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### Method Summary

Client: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

| 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: Ensolum  
Project/Site: James Ranch Unit 21 Riser

Job ID: 890-5456-1  
SDG: 03C1558276

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Depth |
|---------------|------------------|--------|----------------|----------------|-------|
| 890-5456-1    | FS12             | Solid  | 10/13/23 06:40 | 10/13/23 13:42 | 4'    |
| 890-5456-2    | FS13             | Solid  | 10/13/23 07:40 | 10/13/23 13:42 | 4'    |
| 890-5456-3    | FS14             | Solid  | 10/13/23 11:00 | 10/13/23 13:42 | 4'    |
| 890-5456-4    | FS15             | Solid  | 10/13/23 11:45 | 10/13/23 13:42 | 4'    |
| 890-5456-5    | SW04             | Solid  | 10/13/23 11:05 | 10/13/23 13:42 | 0-4'  |
| 890-5456-6    | SW05             | Solid  | 10/13/23 11:25 | 10/13/23 13:42 | 0-4'  |
| 890-5456-7    | SW06             | Solid  | 10/13/23 11:35 | 10/13/23 13:42 | 0-4'  |
| 890-5456-8    | SW07             | Solid  | 10/13/23 11:40 | 10/13/23 13:42 | 0-4'  |

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
EC 1850, TX (915) 365-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

## Environment Testing



Work Order No. \_\_\_\_\_

www.xenoco.com Page 1 of 1

|                  |                         |                         |                              |
|------------------|-------------------------|-------------------------|------------------------------|
| Project Manager: | Ben Beilli              | Bill to: (if different) | Garrett Green                |
| Company Name:    | Ensolum, LLC            | Company Name:           | XTO Energy                   |
| Address:         | 3122 National Parks Hwy | Address:                | 3104 E. Greer St             |
| City, State ZIP: | Carlsbad, NM 88220      | City, State ZIP:        | Carlsbad, NM 88220           |
| Phone:           | 505-854-0852            | Email:                  | Garrett.Green@ExxonMobil.com |

|                   |                         |   |        |
|-------------------|-------------------------|---|--------|
| Project Name:     | James Ranch Unit 21 P55 | Turn Around   |        |
| Project Number:   | 0361558270              | <input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush |        |
| Project Location: | 32.35505, -103.84582    | Due Date:   | 5 days |
| Sampler's Name:   | Mariana O'Dell          | TAT starts the day received by the lab, if received by 4:30pm             |        |
| PO #:             |                         |   |        |

| SAMPLE RECEIPT           | Temp Blank: |    | Wet Ice: |    | Parameters |  |
|--------------------------|-------------|----|----------|----|------------|--|
|                          | Yes         | No | Yes      | No | Pres. Code |  |
| Samples Received Intact: | Yes         | No | Yes      | No |            |  |
| Cooler Custody Seals:    | Yes         | No | N/A      |    |            |  |
| Sample Custody Seals:    | Yes         | No | N/A      |    |            |  |
| Total Containers:        |             |    |          |    |            |  |

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/Comp | # of Cont |
|-----------------------|--------|--------------|--------------|-------|-----------|-----------|
| FS12                  | S      | 10/13/23     | 0:40         | 4'    | G         | 1         |
| FS13                  | S      |              | 7:40         | 4'    | G         | 1         |
| FS14                  | S      |              | 11:00        | 4'    |           |           |
| FS15                  | S      |              | 11:45        | 4'    |           |           |
| SW04                  | S      |              | 11:05        | 0-4'  |           |           |
| SW05                  | S      |              | 11:25        | 0-4'  |           |           |
| SW09                  | S      |              | 11:35        | 0-4'  |           |           |
| SW07                  | S      |              | 11:40        | 0-4'  |           |           |

Total 200.7/6010 200.8/6020 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed TCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg. 1631/245.1/7470 /7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

|                              |                          |           |                              |           |
|------------------------------|--------------------------|-----------|------------------------------|-----------|
| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Date/Time |
| <i>M. O'Dell</i>             | <i>A. Suresh</i>         | 10/13     | <i>[Signature]</i>           | 1342      |



ANALYSIS REQUEST

Preservative Codes: None: NO, DI Water: H<sub>2</sub>O, Cool: Cool, MeOH: Me, ICL: HC, HNO<sub>3</sub>: HN, I<sub>2</sub>: SO<sub>4</sub>: H<sub>2</sub>, NaHSO<sub>4</sub>: HP, NaHSO<sub>4</sub>: NABIS, Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>: NaSO<sub>3</sub>, Zn Acetate+NaOH: Zn, NaOH+Ascorbic Acid: SACP

Sample Comments: Incident #, NAPP 2322742840, COST center: 1081711001, Ben Beilli: bio@ill@ensolum.com



### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5456-1

SDG Number: 03C1558276

**Login Number: 5456**

**List Source: Eurofins Carlsbad**

**List Number: 1**

**Creator: Bruns, Shannon**

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

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### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5456-1

SDG Number: 03C1558276

**Login Number: 5456**

**List Number: 2**

**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

**List Creation: 10/16/23 08:35 AM**

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

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## APPENDIX E

### NMOCD Notifications

---

## Collins, Melanie

---

**From:** OCDOnline@state.nm.us  
**Sent:** Tuesday, August 15, 2023 12:54 PM  
**To:** Collins, Melanie  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 252241

**External Email - Think Before You Click**

To whom it may concern (c/o Melanie Collins for XTO ENERGY, INC),

The OCD has accepted the submitted *Notification of a release* (NOR), for incident ID (n#) nAPP2322742848, with the following conditions:

- **When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.**

Please reference nAPP2322742848, on all subsequent C-141 submissions and communications regarding the remediation of this release.

**NOTE:** As of December 2019, NMOCD has discontinued the use of the "RP" number.

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

ocd.enviro@state.nm.us

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

**From:** [Collins, Melanie](#)  
**To:** [ocd.enviro \(ocd.enviro@emnrd.nm.gov\)](mailto:ocd.enviro@emnrd.nm.gov); [spills@slo.state.nm.us](mailto:spills@slo.state.nm.us)  
**Cc:** [Green, Garrett J](#); [Ben Bellil](#); [Tacoma Morrissey](#); [DelawareSpills /SM](#); [Lambert, Tommee L](#)  
**Subject:** XTO - Sampling Notification (Week of 10/9/23 - 10/13/23)  
**Date:** Thursday, October 5, 2023 12:31:34 PM  
**Attachments:** [image001.png](#)

---

[ \*\*EXTERNAL EMAIL\*\* ]

All,

XTO plans to complete final sampling activities at the sites listed below for the week of October 9, 2023.

Tuesday

- Corral Canyon Expansion / NRM2021833146
- James Ranch Unit 21 Riser / Napp2322742848

Wednesday

- James Ranch Unit 21 Riser / Napp2322742848
- Corral Canyon Expansion / NRM2021833146

Thursday

- James Ranch Unit 21 Riser / Napp2322742848
- JRU DI 11 Ekalaka 823H / NAPP2224527297 (SLO)
- PLU 23 Dog Town Draw 154H / nAPP2316446382

Friday

- JRU 108H / nAPP2217931599
- PLU 18 TWR Sat Battery / nAPP2230551957

Thank you,

*Melanie Collins*



Environmental Technician

[melanie.collins@exxonmobil.com](mailto:melanie.collins@exxonmobil.com)

432-556-3756

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 562609

**QUESTIONS**

|   |  |
|---|--|
| Operator:<br>XTO ENERGY, INC<br>3617 North Big Spring Street<br>Midland, TX 79705 | OGRID:<br>5380   |
|   | Action Number:<br>562609   |
|   | Action Type:<br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

**QUESTIONS**

|                      |   |
|----------------------|---|
| <b>Prerequisites</b> |   |
| Incident ID (n#)     | nAPP2322742848  |
| Incident Name        | NAPP2322742848 JAMES RANCH UNIT 21 RISER @ A-35-22S-30E |
| Incident Type        | Produced Water Release                                  |
| Incident Status      | Reclamation Report Received                             |

|   |                           |
|---|---------------------------|
| <b>Location of Release Source</b>                     |                           |
| <i>Please answer all the questions in this group.</i> |                           |
| Site Name   | JAMES RANCH UNIT 21 RISER |
| Date Release Discovered                               | 08/10/2023                |
| Surface Owner   | Federal                   |

|  |                        |
|--|------------------------|
| <b>Incident Details</b>  |                        |
| <i>Please answer all the questions in this group.</i>  |                        |
| Incident Type  | Produced Water Release |
| Did this release result in a fire or is the result of a fire   | No                     |
| Did this release result in any injuries  | No                     |
| Has this release reached or does it have a reasonable probability of reaching a watercourse          | No                     |
| Has this release endangered or does it have a reasonable probability of endangering public health    | No                     |
| Has this release substantially damaged or will it substantially damage property or the environment   | No                     |
| Is this release of a volume that is or may with reasonable probability be detrimental to fresh water | No                     |

|   |   |
|---|---|
| <b>Nature and Volume of Release</b>   |   |
| <i>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.</i> |   |
| Crude Oil Released (bbls) Details   | Not answered.   |
| Produced Water Released (bbls) Details  | Cause: Corrosion   Valve   Produced Water   Released: 6 BBL   Recovered: 1 BBL   Lost: 5 BBL. |
| Is the concentration of chloride in the produced water >10,000 mg/l   | Yes   |
| Condensate Released (bbls) Details  | Not answered.   |
| Natural Gas Vented (Mcf) Details  | Not answered.   |
| Natural Gas Flared (Mcf) Details  | Not answered.   |
| Other Released Details  | Not answered.   |
| Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)  | Not answered.   |

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QUESTIONS, Page 2

Action 562609

**QUESTIONS (continued)**

|   |  |
|---|--|
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**QUESTIONS**

|   |  |
|---|--|
| <b>Nature and Volume of Release (continued)</b>   |  |
| Is this a gas only submission (i.e. only significant Mcf values reported)               | <b>No, according to supplied volumes this does not appear to be a "gas only" report.</b> |
| Was this a major release as defined by Subsection A of 19.15.29.7 NMAC                  | <b>No</b>  |
| Reasons why this would be considered a submission for a notification of a major release | <i>Unavailable.</i>  |

*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   | <b>True</b>          |
| The impacted area has been secured to protect human health and the environment                                     | <b>True</b>          |
| Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices | <b>True</b>          |
| All free liquids and recoverable materials have been removed and managed appropriately                             | <b>True</b>          |
| If all the actions described above have not been undertaken, explain why   | <i>Not answered.</i> |

*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: Richard Kotzur<br>Title: Senior Project Manager<br>Email: NMEEnvNotifications@exxonmobil.com<br>Date: 03/12/2026 |
|--|--|

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QUESTIONS, Page 3

Action 562609

**QUESTIONS (continued)**

|   |  |
|---|--|
| Operator:<br><br>XTO ENERGY, INC<br>3617 North Big Spring Street<br>Midland, TX 79705 | OGRID:<br>5380   |
|   | Action Number:<br>562609   |
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**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 100 and 500 (ft.)            |
| What method was used to determine the depth to ground water  | NM OSE iWaters Database Search       |
| Did this release impact groundwater or surface water   | No                                   |
| <b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>   |                                      |
| 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)  | Greater than 5 (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 ½ and 1 (mi.)                |
| Any other fresh water well or spring   | Between 1 and 5 (mi.)                |
| Incorporated municipal boundaries or a defined municipal fresh water well field  | Greater than 5 (mi.)                 |
| A wetland  | Between 1 and 5 (mi.)                |
| A subsurface mine  | Between 1 and 5 (mi.)                |
| An (non-karst) unstable area   | Zero feet, overlying, or within area |
| Categorize the risk of this well / site being in a karst geology   | Medium                               |
| A 100-year floodplain  | Between 1 and 5 (mi.)                |
| Did the release impact areas not on an exploration, development, production, or storage site                               | Yes                                  |

**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 |
| <i>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.</i> |     |
| 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)         | 455  |
| TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M) | 50.5 |
| GRO+DRO (EPA SW-846 Method 8015M)           | 50.5 |
| 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                        | 09/16/2023 |
| On what date will (or did) the final sampling or liner inspection occur     | 10/11/2023 |
| On what date will (or was) the remediation complete(d)                      | 10/11/2023 |
| What is the estimated surface area (in square feet) that will be reclaimed  | 2520       |
| What is the estimated volume (in cubic yards) that will be reclaimed        | 160        |
| What is the estimated surface area (in square feet) that will be remediated | 2520       |
| What is the estimated volume (in cubic yards) that will be remediated       | 160        |

*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, Page 4

Action 562609

**QUESTIONS (continued)**

|   |  |
|---|--|
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|   | Action Number:<br>562609   |
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**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 <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.) | Yes  |
| Which OCD approved facility will be used for <b>off-site</b> disposal                 | fEEM0112334510 HALFWAY DISPOSAL AND LANDFILL |
| <b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal     | Not answered.                                |
| <b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state              | Not answered.                                |
| <b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility          | Not answered.                                |
| (Ex Situ) Excavation and <b>on-site</b> 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: Richard Kotzur<br>Title: Senior Project Manager<br>Email: NMEnvNotifications@exxonmobil.com<br>Date: 03/12/2026 |
|--|---|

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, Page 5

Action 562609

**QUESTIONS (continued)**

|   |  |
|---|--|
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|   | Action Number:<br>562609   |
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**QUESTIONS**

|   |    |
|---|----|
| <b>Deferral Requests Only</b>   |    |
| <i>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.</i> |    |
| Requesting a deferral of the remediation closure due date with the approval of this submission  | No |

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QUESTIONS, Page 6

Action 562609

**QUESTIONS (continued)**

|   |  |
|---|--|
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|   | Action Number:<br>562609   |
|   | Action Type:<br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

**QUESTIONS**

| <b>Sampling Event Information</b>   |                   |
|---|-------------------|
| Last sampling notification (C-141N) recorded  | <b>562723</b>     |
| Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC | <b>06/19/2025</b> |
| What was the (estimated) number of samples that were to be gathered                             | <b>1</b>          |
| What was the sampling surface area in square feet   | <b>2520</b>       |

**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  | 2520   |
| What was the total volume (cubic yards) remediated   | 160  |
| 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   | 2520   |
| What was the total volume (in cubic yards) reclaimed   | 160  |
| Summarize any additional remediation activities not included by answers (above)  | Site assessment, delineation, and excavation activities were conducted at the Site to address the August 2023 release of produced water. Laboratory analytical results for all excavation soil samples collected from the final excavation extent indicated all COC concentrations were compliant with the reclamation requirement. This includes confirmation sidewall soil samples SW01 through SW07, which confirms the lateral definition of the release extent area. Based on the soil sample analytical results, no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing Site conditions. The pasture area affected by the release will be reseeded with an approved BLM seed mixture. Excavation of impacted soil has mitigated impacts at this Site. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number NAPP2322742848. |

*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: Richard Kotzur<br>Title: Senior Project Manager<br>Email: NMEnvNotifications@exxonmobil.com<br>Date: 03/12/2026 |
|--|---|

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QUESTIONS, Page 7

Action 562609

**QUESTIONS (continued)**

|   |  |
|---|--|
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|   | Action Number:<br><br>562609   |
|   | Action Type:<br><br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

**QUESTIONS**

|  |  |
|--|--|
| <b>Reclamation Report</b>  |  |
| <i>Only answer the questions in this group if all reclamation steps have been completed.</i>   |  |
| Requesting a reclamation approval with this submission   | Yes  |
| What was the total reclamation surface area (in square feet) for this site   | 2520   |
| What was the total volume of replacement material (in cubic yards) for this site   | 160  |
| <i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a 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.</i>  |  |
| Is the soil top layer complete and is it suitable material to establish vegetation   | Yes  |
| On what (estimated) date will (or was) the reseeded commence(d)  | 04/01/2026   |
| Summarize any additional reclamation activities not included by answers (above)  | Following backfill activities, the disturbed area was contoured to match the surrounding topography and the surface was prepared for seeding. Upon confirmation that the excavation was backfilled with non-waste containing material, the disturbed pasture area will be seeded with a certified weed-free seed mix. The BLM Seed Mix #2 will be used to seed the Site. The seed mix will be applied via drill seeding. The Site will be monitored for vegetation growth to ensure that reclamation activities were successful. |
| <i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeded plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.</i>  |  |
| 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: Richard Kotzur<br>Title: Senior Project Manager<br>Email: NMEnvNotifications@exxonmobil.com<br>Date: 03/12/2026  |

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QUESTIONS, Page 8

Action 562609

**QUESTIONS (continued)**

|   |  |
|---|--|
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|   | Action Number:<br>562609   |
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**QUESTIONS**

|   |    |
|---|----|
| <b>Revegetation Report</b>  |    |
| <i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>   |    |
| Requesting a restoration complete approval with this submission   | No |
| <i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i> |    |

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CONDITIONS

Action 562609

**CONDITIONS**

|   |  |
|---|--|
| Operator:<br>XTO ENERGY, INC<br>3617 North Big Spring Street<br>Midland, TX 79705 | OGRID:<br>5380   |
|   | Action Number:<br>562609   |
|   | Action Type:<br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

**CONDITIONS**

| Created By | Condition  | Condition Date |
|------------|--|----------------|
| rhamlet    | We have received your Reclamation Report for Incident #NAPP2322742848 JAMES RANCH UNIT 21 RISER, thank you. This Reclamation Report is approved. | 3/20/2026      |