

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NAPP2315133557
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Garrett Green	Contact Telephone 575-200-0729
Contact email garrett.green@exxonmobil.com	Incident # (assigned by OCD)
Contact mailing address 3104 E. Greene Street, Carlsbad, New Mexico, 88220	

Location of Release Source

Latitude 32.24083 Longitude -103.91910
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Poker Lake Unit 183Q	Site Type Production Well
Date Release Discovered 05/15/2023	API# (if applicable)

Unit Letter	Section	Township	Range	County
O	06	24S	30E	Eddy

Surface Owner: State Federal Tribal Private (Name: _____)

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 3.29	Volume Recovered (bbls) 1.90
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 14.02	Volume Recovered (bbls) 8.10
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release External corrosion caused a flowline to release fluids to the soil. Vac truck recovered free fluids. A third-party contractor has been retained for remediation purposes.


State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why: NA
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Garrett Green</u> Title: <u>SSHE Coordinator</u> Signature: <u></u> Date: <u>5/25/2023</u> email: <u>garrett.green@exxonmobil.com</u> Telephone: <u>575-200-0729</u>
<u>OCD Only</u>
Received by: _____ Date: _____

Location:	PLU 183Q	
Spill Date:	5/15/2023	
Area 1		
Approximate Area =	721.00	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	1.96	bbls
Total Produced Water =	8.36	bbls
Area 2		
Approximate Area =	1176.00	sq. ft.
Average Saturation (or depth) of spill =	4.00	inches
Average Porosity Factor =	0.10	
VOLUME OF LEAK		
Total Crude Oil =	1.33	bbls
Total Produced Water =	5.66	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	3.29	bbls
Total Produced Water =	14.02	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil =	1.90	bbls
Total Produced Water =	8.10	bbls

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 222192

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 222192
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	None	6/2/2023

Incident ID	NAPP2315133557
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Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

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

Printed Name: Garrett Green Title: Environmental Coordinator

Signature:  Date: 8/11/2023

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: Shelly Wells Date: 8/11/2023

Incident ID	NAPP2315133557
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Closure


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

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

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

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

Printed Name: Garrett Green Title: Environmental Coordinator

Signature:  Date: 8/11/2023

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: Shelly Wells Date: 8/11/2023

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



August 11, 2023

New Mexico Oil Conservation Division

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

**Re: Closure Request
Poker Lake Unit 183Q
Incident Number NAPP2315133557
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, excavation, and soil sampling activities at the Poker Lake Unit 183Q (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to assess for the presence or absence of impacts to soil following a produced water and crude oil release at the Site. Based on excavation activities and soil sample laboratory analytical results, XTO is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2315133557.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit O, Section 6, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.24083°, -103.91910°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On May 15, 2023, external corrosion on a surface flowline caused approximately 3.29 barrels (bbls) of crude oil and 14.02 bbls of produced water to release along the edge of an access road and pasture area, and onto a pipeline right-of-way (ROW). A vacuum truck was immediately dispatched and recovered approximately 1.9 bbls of crude oil and 8.1 bbls of produced water. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on May 25, 2023. The release was assigned Incident Number NAPP2315133557.

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. Potential Site receptors are identified on Figure 1.

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 with depth to groundwater data is the New Mexico Office of the State Engineer (OSE) well C-4526, located approximately 0.27 miles north of the Site. The groundwater well has a reported total depth of greater than 105 feet bgs drilled via hollow stem auger. The borehole was drilled in May 2021 and no groundwater was encountered. The Well Record and Log is included in Appendix A. All wells used to determine depth to groundwater are depicted on Figure 1.

XTO Energy, Inc
Closure Request
Poker Lake Unit 183Q

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 4,108 feet northwest 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 from 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 (low potential karst designation area).

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/ROW area of where the release extent occurred, per 19.15.29.13.D (1) NMAC.

SITE ASSESSMENT ACTIVITIES

On July 7, 2023, Site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Three delineation soil samples (SS01 through SS03) were collected within the release extent at a depth of 0.5 feet bgs to assess for the presence of absence of soil impacted soil. 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 soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photo documentation was conducted during the Site visits and a photographic log is included in Appendix B.

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 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 Celcius required for shipment and long term storage, but are considered to have been received in acceptable condition by the laboratory.

Laboratory analytical results for delineation samples SS01 through SS03 indicated TPH and chloride concentrations exceeded the Site Closure Criteria and/or reclamation requirement. Based on the presence of impacted soil, additional delineation and excavation activities were warranted.

DELINEATION AND EXCAVATION ACTIVITIES

From June 26, through June 29, 2023, Ensolum personnel returned to the Site to oversee additional delineation and excavation of impacted soil. Three potholes (PH01 through PH03) were advanced by

XTO Energy, Inc
Closure Request
Poker Lake Unit 183Q

use of heavy equipment at the locations of delineation samples SS01 through SS03, respectively. Discrete delineation soil samples were collected from each pothole at the terminal depth, which ranged from 3 feet to 6 feet bgs. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs and are included in Appendix C. The delineation soil samples were field screened, handled, and analyzed as described above. The delineation soil sample locations are depicted on Figure 2.

TPH- and chloride-impacted soil was excavated from the release area. Excavation activities were performed utilizing a backhoe and transport vehicles. To direct excavation activities, soil was field screened for VOCs and chloride.

Following removal of the impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls 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. Confirmation soil samples FS01 through FS10 were collected from the floor of the excavation at depths ranging from 2 feet to 6 feet bgs. Confirmation soil samples SW01 through SW09 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 6 feet bgs. All excavation confirmation soil samples collected were handled and analyzed following the same procedures as described above. The excavation extent and excavation confirmation soil sample locations are presented on Figure 3. Photographic documentation of the excavation is included in Appendix B.

Laboratory analytical results indicated the presence of elevated chloride concentrations at confirmation soil samples SW01 and SW02. On July 18, 2023, additional excavation activities were conducted in those locations. Following the removal of impacted soil, confirmation composite soil samples SW10 and SW11 were collected. Soil sample locations for SW10 and SW11 are presented on Figure 3.

The final excavation extent measured approximately 1,385 square feet. A total of approximately 260 cubic yards of impacted soil was removed during excavation activities. The impacted soil was transported and properly disposed of at R360 Landfill Disposal Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation area was secured with fencing.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for excavation confirmation soil samples collected from the final excavation extent (FS01 through FS10 and SW03 through SW11) indicated all COC concentrations were compliant with the Site Closure Criteria and/or the reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix D. Notification of sampling events are included in Appendix E.

CLOSURE REQUEST


Site assessment, delineation, and excavation activities were conducted at the Site to address the May 15, 2023 release of crude oil and produced water. Laboratory analytical results for all excavation soil samples collected from the final excavation extent indicated all COC concentrations were compliant with the Site Closure Criteria and/or reclamation requirement. Based on laboratory analytical results, no further remediation was required. The release is fully defined laterally through the collection of composite sidewall samples SW03 through SW11, and vertically through the collection of delineation soil samples PH01 through PH03 and composite floor samples FS01 through FS10. XTO will backfill the excavation with topsoil material and recontour the Site to match pre-existing Site conditions. Following backfill completion, the disturbed area will be re-seeded with the recommended BLM Seed Mixture Type.

XTO Energy, Inc
Closure Request
Poker Lake Unit 183Q

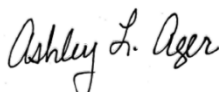
Excavation of soil has mitigated impacts at this Site. Depth to groundwater is confirmed to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number NAPP2315133557.

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

Sincerely,
Ensolum, LLC



Benjamin J. Belill
Project Geologist



Ashley L. Ager, MS, PG
Principal

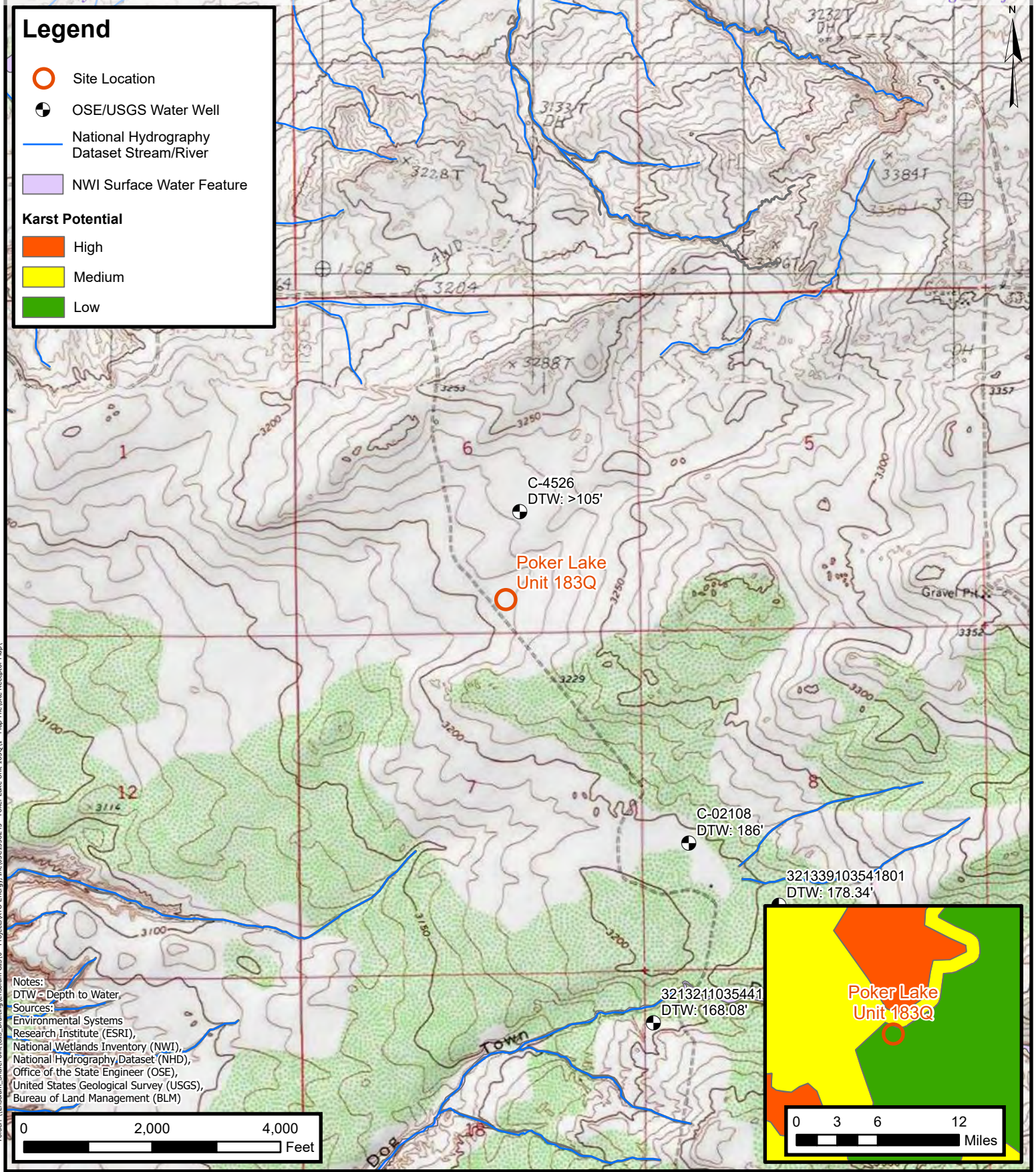
cc: Garrett Green, XTO
Shelby Pennington, XTO
BLM

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 Photographic Log
- Appendix C Lithology Soil Sampling Logs
- Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation
- Appendix E NMOCD Notifications/Correspondence



FIGURES



Folder: \\Ensolum_SharePoint\GIS - Projects\XTO Energy, Inc\03C1558243 - Poker Lake Unit 183Q\1 - Map File\Site Receptor Map






Site Receptor Map

XTO Energy, Inc
 Poker Lake Unit 183Q
 Incident Number: nAPP2315133557
 Unit O, Sec 6, T24S, R30E
 Eddy County, New Mexico

FIGURE

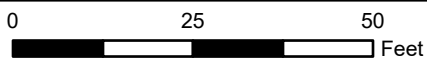
1

Legend

-  Point of Release (POR)
-  Release Extent
-  Delineation soil sample with concentrations previously exceeding closure criteria



Notes:
 Sample ID @ Depth Below Ground Surface.
 Samples in bold indicate sample exceeded applicable closure criteria
 Samples in grey indicate samples were removed during excavation activities.



Sources: Environmental Systems Research Institute (ESRI)



Delineation Soil Sample Locations

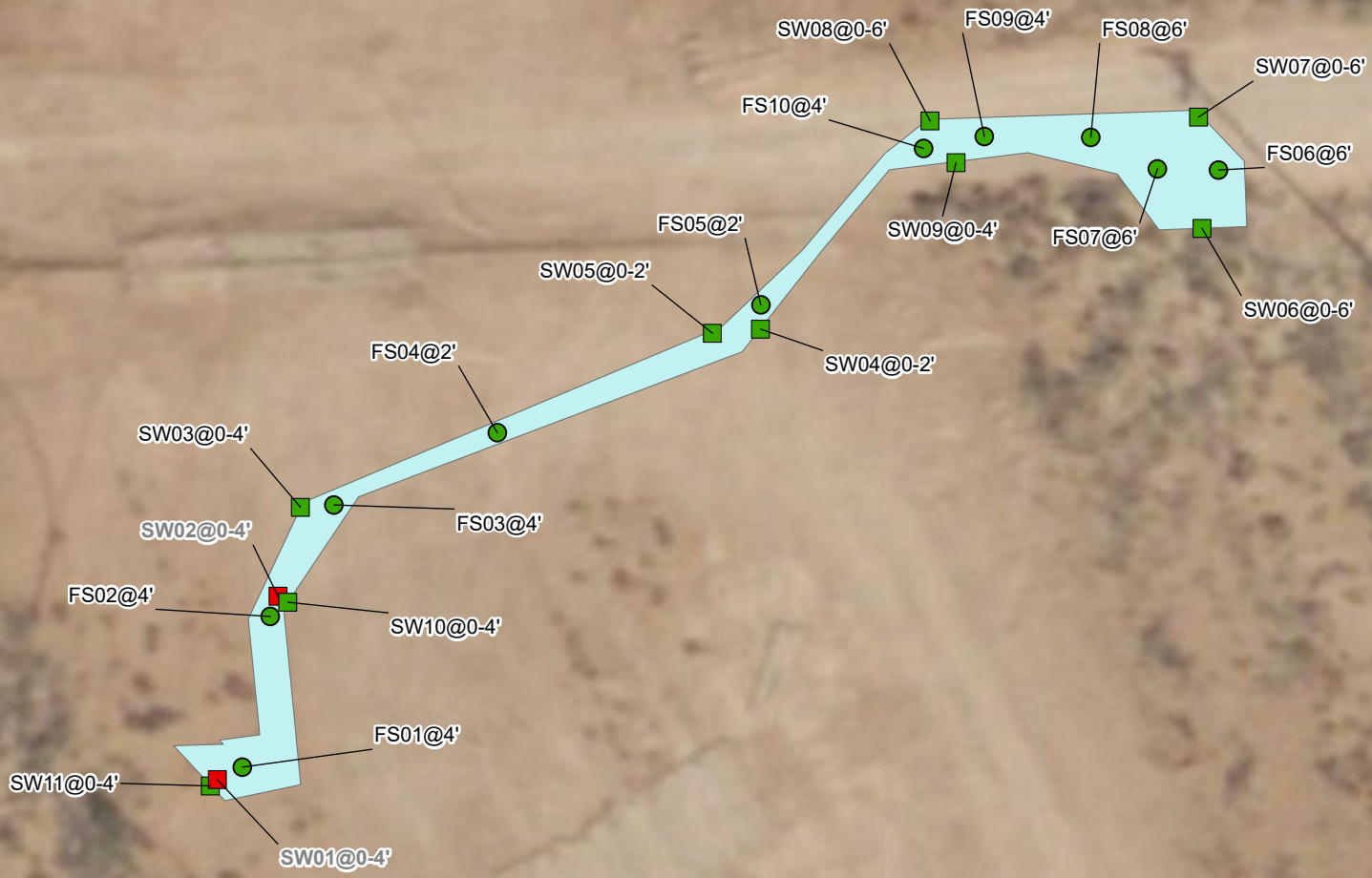
XTO Energy, Inc
 Poker Lake Unit 183Q
 Incident Number: nAPP2315133557
 Unit O, Sec 6, T24S, R30E
 Eddy County, New Mexico

FIGURE

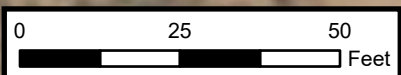
2

Legend

- Excavation Extent
- Excavation sidewall soil sample concentrations exceed Closure Criteria
- Excavation sidewall soil sample in compliance with Closure Criteria
- Excavation floor soil sample in compliance with Closure Criteria



Notes:
 Sample ID @ Depth Below Ground Surface.
 Samples in bold indicate sample exceeded applicable closure criteria
 Samples in grey indicate samples were removed during excavation activities.



Sources: Environmental Systems Research Institute (ESRI)



Excavation Soil Sample Locations

XTO Energy, Inc
 Poker Lake Unit 183Q
 Incident Number: nAPP2315133557
 Unit O, Sec 6, T24S, R30E
 Eddy County, New Mexico

FIGURE

3



TABLES

**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Poker Lake Unit 183Q
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)
NMOCOD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples										
SS01	06/06/2023	0-5	<0.00202	0.263	<25.0	3,980	<25.0	3,980	3,980	3,110
PH01	06/23/2023	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	529
PH01A	06/23/2023	4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	272
SS02	06/06/2023	0-5	<0.00198	<0.00396	<49.9	639	<49.9	639	639	365
PH02	06/26/2023	3	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	138
SS03	06/06/2023	0-5	<0.00200	<0.401	<50.0	533	<50.0	533	533	48,600
PH03	06/27/2023	6	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	14,800
Confirmation Soil Samples										
FS01	06/26/2023	4	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	68.0
FS02	06/26/2023	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	94.0
FS03	06/26/2023	4	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	136
FS04	06/26/2023	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	57.7
FS05	06/26/2023	2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	84.3
FS06	06/27/2023	6	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	10,600
FS07	06/27/2023	6	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	15,500
FS08	06/29/2023	6	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	8,540
FS09	06/29/2023	4	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	74.4
FS10	06/29/2023	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	71.2
SW01	06/26/2023	0-4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	1,480
SW02	06/26/2023	0-4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	737
SW03	06/26/2023	0 - 4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	133
SW04	06/26/2023	0 - 2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	39.1
SW05	06/26/2023	0 - 2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	50.3
SW06	06/29/2023	0 - 6	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	149
SW07	06/29/2023	0 - 6	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	477
SW08	06/29/2023	0 - 6	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	53.3
SW09	06/29/2023	0 - 4	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	178
SW10	07/18/2023	0 - 4	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	69.2
SW11	07/18/2023	0 - 4	<0.00202	<0.00404	<50.4	<50.4	<50.4	<50.4	<50.4	70.3

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCOD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCOD 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



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER


www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (MW-1)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4526			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES 32°		MINUTES 14'	SECONDS 42.15"	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84		
		LATITUDE		N				
LONGITUDE		103°		55'		6.20" W		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NW NE Sec. 06 T24S R30E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 05/14/2021		DRILLING ENDED 05/14/2021	DEPTH OF COMPLETED WELL (FT) temporary well material		BORE HOLE DEPTH (FT) 105	DEPTH WATER FIRST ENCOUNTERED (FT) 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) n/a		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	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	105	±6.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	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						

FOR OSE INTERNAL USE				WR-20 WELL RECORD & LOG (Version 06/30/17)			
FILE NO.	C-4526	POD NO.	1	TRN NO.	692109		
LOCATION	Expl	24S.30E.6.414	WELL TAG ID NO.	0210010201	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	4	4	SAND, poorly graded, fine-very grained, Reddish-brown, dry	Y ✓ N	
	4	12	8	CALICHE, poorly-mod. consolidated, tan-off white, dry	Y ✓ N	
	12	19	7	SAND, poorly graded, fine-very grained, some caliche gravel, Tan, dry	Y ✓ N	
	19	24	5	SAND, poorly graded, fine-very grained, some caliche gravel, Light- Brown, dry	Y ✓ N	
	24	72	48	SAND, poorly graded, fine-very grained, Reddish Brown, moist	Y ✓ N	
	72	92	20	SAND, poorly graded, fine-very grained, some silt, Reddish Brown, moist	Y ✓ N	
	92	102	10	SILTY SAND, poorly graded, fine-very grained, Reddish Brown, moist	Y ✓ N	
	102	105	3	SILTY SAND, poorly graded, fine-very grained, Reddish Brown, dry	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
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					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): 0.00	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:						

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:	Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:	Shane Eldridge, Carmelo Trevino, Cameron Pruitt

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 Jackie D. Atkins	06/09/2021
	SIGNATURE OF DRILLER / PRINT SIGNEE NAME	DATE

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/2017)	
FILE NO.	C-4526	POD NO.	1
LOCATION		TRN NO.	U92109
		WELL TAG ID NO.	PAGE 2 OF 2

OSE DT JUN 10 2021 12:47



APPENDIX B

Photographic Log



Photographic Log
XTO Energy, Inc
Poker Lake Unit 183Q
Incident Number NAPP2315133557



Photograph 1 Date: 6/6/2023
Description: Site assessment activities, release extent.
View: West

Photograph 2 Date: 6/6/2023
Description: Site assessment activities, release extent.
View: Northeast



Photograph 3 Date: 6/26/2023
Description: Excavation activities, near SS02/PH02.
View: West

Photograph 4 Date: 6/29/2023
Description: Excavation activities, near SS01/PH01.
View: East



Photographic Log
 XTO Energy, Inc
 Poker Lake Unit 183Q
 Incident Number NAPP2315133557

Date & Time: Thu, Jun 29, 2023 at 10:05:46 MDT
 Position: +032.2467717, -103.618967, 4415.710
 Altitude: 3274ft 1521.0ft
 Bearing: 303.6°
 Azimuth: 303.6°
 Elevation Angle: -30.2°
 Horizontal Angle: 101.5°
 Zoom: 1.0X
 Location: Excavation on
 Mariana OPA



Date & Time: Thu, Jul 18, 2023 at 10:59:06 MDT
 Position: +032.2466277, -103.617967, 4416.416
 Altitude: 3274ft 1521.0ft
 Bearing: 303.6°
 Azimuth: 303.6°
 Elevation Angle: -32.3°
 Horizontal Angle: 91.5°
 Zoom: 1.0X
 Location: PLU 183Q, excavation at west end of release looking southeast




Photograph 5 Date: 6/29/2023
 Description: Excavation activities, near release point.
 View: West


Photograph 6 Date: 7/18/2023
 Description: Excavation activities, near SS01/PH01.
 View: Northeast




APPENDIX C

Lithologic Soil Sampling Logs

					Sample Name: PH01		Date: 06/23/2023	
					Site Name: Poker Lake Unit 183Q			
					Incident Number: nAPP2315133557			
					Job Number: 03C1588243			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: Mariaha O'Dell		Method: Backhoe	
Coordinates: 32.240539, -103.919519					Hole Diameter: N/A		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 measurements done 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
M	2,402	527.8	Y	SS01	0.5	0		
D	5,365	56.1	N	PH01	1	1	SW	Reddish brown Sand, vf-f grained, well graded
D	3,293	29.7	N		2	2		
D	<179	36.6	N		3	3		
D	<179	0.0	N	PH01A	4	4	SW	Reddish brown Sand, vf-f grained, well graded Trace CCHE
TD @ 4' bgs								

							Sample Name: PH02		Date: 06/26/2023	
							Site Name: Poker Lake Unit 183Q			
							Incident Number: nAPP2315133557			
							Job Number: 03C1588243			
LITHOLOGIC / SOIL SAMPLING LOG							Logged By: Mariaha O'Dell		Method: Backhoe	
Coordinates: 32.240684, -103.919406							Hole Diameter: N/A		Total Depth: 3'	
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 measurements done 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		
M	364	39.6	Y	SS02	0.5	0		Reddish brown Sand, vf-f grained, well graded. DRY		
D	<179	0.0	N		1	1	SW			
D	<179	6.6	N		2	2				
D	<179	1.9	N	PH02	3	3				
TD @ 3' bgs										

					Sample Name: PH03		Date: 06/27/2023	
					Site Name: Poker Lake Unit 183Q			
					Incident Number: nAPP2315133557			
					Job Number: 03C1588243			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: Mariaha O'Dell		Method: Backhoe	
Coordinates: 32.240816, -103.919048					Hole Diameter: N/A		Total Depth: 6'	
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 measurements done 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
M	17,466	224.6	Y	SS03	0.5	0	SW	Reddish brown Sand, vf-f grained, well graded. DRY
D	6,821	1,695	N		1	1		
D	8,014	93.7	N		2	2		
D	4,553	5.4	N		3	3		
D	17,466	0.6	N		4	4		
D	26,768	0.0	N		5			
D	13,233	0.0	N	PH03	6	6		
TD @ 6' bgs.								



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/13/2023 11:58:56 AM

JOB DESCRIPTION

Poker Lake Unit 183Q
 SDG NUMBER 03C1588243

JOB NUMBER

890-4787-1

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
6/13/2023 11:58:56 AM

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

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Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Laboratory Job ID: 890-4787-1
SDG: 03C1588243

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Definitions/Glossary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

Job ID: 890-4787-1

Laboratory: Eurofins Carlsbad**Narrative**

**Job Narrative
890-4787-1**

Receipt

The samples were received on 6/6/2023 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 2.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4787-1), SS02 (890-4787-2) and SS03 (890-4787-3).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-55034 and analytical batch 880-55086 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS01 (890-4787-1). 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: (LCSD 880-55034/2-A). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-55158/2-A) and (LCSD 880-55158/3-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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



Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

Client Sample ID: SS01

Lab Sample ID: 890-4787-1

Date Collected: 06/06/23 09:50

Matrix: Solid

Date Received: 06/06/23 15:42

Sample Depth: 0.5'

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		06/08/23 12:22	06/10/23 13:25	1
Toluene	0.0168		0.00202	mg/Kg		06/08/23 12:22	06/10/23 13:25	1
Ethylbenzene	0.0567		0.00202	mg/Kg		06/08/23 12:22	06/10/23 13:25	1
m-Xylene & p-Xylene	0.0525		0.00403	mg/Kg		06/08/23 12:22	06/10/23 13:25	1
o-Xylene	0.137		0.00202	mg/Kg		06/08/23 12:22	06/10/23 13:25	1
Xylenes, Total	0.190		0.00403	mg/Kg		06/08/23 12:22	06/10/23 13:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	229	S1+	70 - 130			06/08/23 12:22	06/10/23 13:25	1
1,4-Difluorobenzene (Surr)	100		70 - 130			06/08/23 12:22	06/10/23 13:25	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.263		0.00403	mg/Kg			06/10/23 18:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3980		250	mg/Kg			06/13/23 12:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		06/09/23 14:01	06/13/23 07:19	5
Diesel Range Organics (Over C10-C28)	3980		250	mg/Kg		06/09/23 14:01	06/13/23 07:19	5
Oil Range Organics (Over C28-C36)	<250	U	250	mg/Kg		06/09/23 14:01	06/13/23 07:19	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			06/09/23 14:01	06/13/23 07:19	5
o-Terphenyl	101		70 - 130			06/09/23 14:01	06/13/23 07:19	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3110		24.8	mg/Kg			06/09/23 13:00	5

Client Sample ID: SS02

Lab Sample ID: 890-4787-2

Date Collected: 06/06/23 09:55

Matrix: Solid

Date Received: 06/06/23 15:42

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		06/08/23 12:22	06/10/23 14:22	1
Toluene	<0.00198	U	0.00198	mg/Kg		06/08/23 12:22	06/10/23 14:22	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		06/08/23 12:22	06/10/23 14:22	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		06/08/23 12:22	06/10/23 14:22	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		06/08/23 12:22	06/10/23 14:22	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		06/08/23 12:22	06/10/23 14:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130			06/08/23 12:22	06/10/23 14:22	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

Client Sample ID: SS02

Lab Sample ID: 890-4787-2

Date Collected: 06/06/23 09:55

Matrix: Solid

Date Received: 06/06/23 15:42

Sample Depth: 0.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	115		70 - 130	06/08/23 12:22	06/10/23 14:22	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			06/10/23 18:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	639		49.9	mg/Kg			06/13/23 12:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/09/23 14:01	06/13/23 07:42	1
Diesel Range Organics (Over C10-C28)	639		49.9	mg/Kg		06/09/23 14:01	06/13/23 07:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/09/23 14:01	06/13/23 07:42	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	94		70 - 130	06/09/23 14:01	06/13/23 07:42	1		
o-Terphenyl	101		70 - 130	06/09/23 14:01	06/13/23 07:42	1		

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	365		4.95	mg/Kg			06/09/23 13:05	1

Client Sample ID: SS03

Lab Sample ID: 890-4787-3

Date Collected: 06/06/23 10:00

Matrix: Solid

Date Received: 06/06/23 15:42

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		06/08/23 12:22	06/10/23 14:42	1
Toluene	0.00743		0.00200	mg/Kg		06/08/23 12:22	06/10/23 14:42	1
Ethylbenzene	0.0215		0.00200	mg/Kg		06/08/23 12:22	06/10/23 14:42	1
m-Xylene & p-Xylene	0.0499		0.00400	mg/Kg		06/08/23 12:22	06/10/23 14:42	1
o-Xylene	0.0221		0.00200	mg/Kg		06/08/23 12:22	06/10/23 14:42	1
Xylenes, Total	0.0720		0.00400	mg/Kg		06/08/23 12:22	06/10/23 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	06/08/23 12:22	06/10/23 14:42	1
1,4-Difluorobenzene (Surr)	99		70 - 130	06/08/23 12:22	06/10/23 14:42	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.101		0.00400	mg/Kg			06/10/23 18:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	533		50.0	mg/Kg			06/13/23 12:05	1

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Client Sample Results

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
 SDG: 03C1588243

Client Sample ID: SS03

Lab Sample ID: 890-4787-3

Date Collected: 06/06/23 10:00

Matrix: Solid

Date Received: 06/06/23 15:42

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	<50.0	U	50.0	mg/Kg		06/09/23 14:01	06/13/23 08:05	1
Diesel Range Organics (Over C10-C28)	533		50.0	mg/Kg		06/09/23 14:01	06/13/23 08:05	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/09/23 14:01	06/13/23 08:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			06/09/23 14:01	06/13/23 08:05	1
o-Terphenyl	95		70 - 130			06/09/23 14:01	06/13/23 08:05	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18600		101	mg/Kg			06/09/23 13:11	20

Surrogate Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-29060-A-8-C MS	Matrix Spike	86	113
880-29060-A-8-D MSD	Matrix Spike Duplicate	110	102
890-4787-1	SS01	229 S1+	100
890-4787-2	SS02	89	115
890-4787-3	SS03	118	99
LCS 880-55034/1-A	Lab Control Sample	100	114
LCSD 880-55034/2-A	Lab Control Sample Dup	66 S1-	109
MB 880-54980/5-A	Method Blank	73	94
MB 880-55034/5-A	Method Blank	76	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-29311-A-121-C MS	Matrix Spike	99	94
880-29311-A-121-D MSD	Matrix Spike Duplicate	101	95
890-4787-1	SS01	98	101
890-4787-2	SS02	94	101
890-4787-3	SS03	92	95
LCS 880-55158/2-A	Lab Control Sample	24 S1-	20 S1-
LCSD 880-55158/3-A	Lab Control Sample Dup	24 S1-	19 S1-
MB 880-55158/1-A	Method Blank	97	118

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-54980/5-A
Matrix: Solid
Analysis Batch: 55086

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54980

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/07/23 13:56	06/09/23 21:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/07/23 13:56	06/09/23 21:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/07/23 13:56	06/09/23 21:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/07/23 13:56	06/09/23 21:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/07/23 13:56	06/09/23 21:41	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/07/23 13:56	06/09/23 21:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130	06/07/23 13:56	06/09/23 21:41	1
1,4-Difluorobenzene (Surr)	94		70 - 130	06/07/23 13:56	06/09/23 21:41	1

Lab Sample ID: MB 880-55034/5-A
Matrix: Solid
Analysis Batch: 55086

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 55034

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/08/23 12:22	06/10/23 08:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/08/23 12:22	06/10/23 08:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/08/23 12:22	06/10/23 08:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/08/23 12:22	06/10/23 08:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/08/23 12:22	06/10/23 08:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/08/23 12:22	06/10/23 08:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	06/08/23 12:22	06/10/23 08:16	1
1,4-Difluorobenzene (Surr)	94		70 - 130	06/08/23 12:22	06/10/23 08:16	1

Lab Sample ID: LCS 880-55034/1-A
Matrix: Solid
Analysis Batch: 55086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 55034

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1259		mg/Kg		126	70 - 130
Toluene	0.100	0.09996		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.09424		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.1846		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09812		mg/Kg		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	114		70 - 130

Lab Sample ID: LCSD 880-55034/2-A
Matrix: Solid
Analysis Batch: 55086

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 55034

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1283		mg/Kg		128	70 - 130	2	35

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

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

Lab Sample ID: LCSD 880-55034/2-A
Matrix: Solid
Analysis Batch: 55086

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 55034

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Toluene	0.100	0.09461		mg/Kg		95	70 - 130	5	35	
Ethylbenzene	0.100	0.08192		mg/Kg		82	70 - 130	14	35	
m-Xylene & p-Xylene	0.200	0.1503		mg/Kg		75	70 - 130	21	35	
o-Xylene	0.100	0.07379		mg/Kg		74	70 - 130	28	35	
		LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	66	S1-	70 - 130							
1,4-Difluorobenzene (Surr)	109		70 - 130							

Lab Sample ID: 880-29060-A-8-C MS
Matrix: Solid
Analysis Batch: 55086

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 55034

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Benzene	<0.00198	U F1	0.101	0.1356	F1	mg/Kg		134	70 - 130			
Toluene	<0.00198	U	0.101	0.1031		mg/Kg		102	70 - 130			
Ethylbenzene	<0.00198	U	0.101	0.08981		mg/Kg		89	70 - 130			
m-Xylene & p-Xylene	<0.00396	U	0.202	0.1747		mg/Kg		86	70 - 130			
o-Xylene	<0.00198	U	0.101	0.08688		mg/Kg		86	70 - 130			
		MS	MS									
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	86		70 - 130									
1,4-Difluorobenzene (Surr)	113		70 - 130									

Lab Sample ID: 880-29060-A-8-D MSD
Matrix: Solid
Analysis Batch: 55086

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 55034

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Benzene	<0.00198	U F1	0.0994	0.1273		mg/Kg		128	70 - 130	6	35	
Toluene	<0.00198	U	0.0994	0.1097		mg/Kg		110	70 - 130	6	35	
Ethylbenzene	<0.00198	U	0.0994	0.1087		mg/Kg		109	70 - 130	19	35	
m-Xylene & p-Xylene	<0.00396	U	0.199	0.2205		mg/Kg		111	70 - 130	23	35	
o-Xylene	<0.00198	U	0.0994	0.1103		mg/Kg		111	70 - 130	24	35	
		MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	110		70 - 130									
1,4-Difluorobenzene (Surr)	102		70 - 130									

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

Lab Sample ID: MB 880-55158/1-A
Matrix: Solid
Analysis Batch: 55236

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 55158

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		06/09/23 14:01	06/12/23 23:24	1

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

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

Lab Sample ID: MB 880-55158/1-A
Matrix: Solid
Analysis Batch: 55236

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 55158

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/09/23 14:01	06/12/23 23:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/09/23 14:01	06/12/23 23:24	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	97		70 - 130	06/09/23 14:01	06/12/23 23:24	1
o-Terphenyl	118		70 - 130	06/09/23 14:01	06/12/23 23:24	1

Lab Sample ID: LCS 880-55158/2-A
Matrix: Solid
Analysis Batch: 55236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 55158

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	982.0		mg/Kg		98	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1-Chlorooctane	24	S1-	70 - 130
o-Terphenyl	20	S1-	70 - 130

Lab Sample ID: LCSD 880-55158/3-A
Matrix: Solid
Analysis Batch: 55236

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 55158

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	890.2		mg/Kg		89	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	970.1		mg/Kg		97	70 - 130	1	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1-Chlorooctane	24	S1-	70 - 130
o-Terphenyl	19	S1-	70 - 130

Lab Sample ID: 880-29311-A-121-C MS
Matrix: Solid
Analysis Batch: 55236

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 55158

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1017		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1088		mg/Kg		107	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1-Chlorooctane	99		70 - 130
o-Terphenyl	94		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

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

Lab Sample ID: 880-29311-A-121-D MSD
Matrix: Solid
Analysis Batch: 55236

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 55158

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1035		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1101		mg/Kg		108	70 - 130	1	20
Surrogate	%Recovery	MSD Qualifier	MSD	Limits							
1-Chlorooctane	101			70 - 130							
o-Terphenyl	95			70 - 130							

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-55022/1-A
Matrix: Solid
Analysis Batch: 55120

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			06/09/23 10:37	1

Lab Sample ID: LCS 880-55022/2-A
Matrix: Solid
Analysis Batch: 55120

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	248.0		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-55022/3-A
Matrix: Solid
Analysis Batch: 55120

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	250.6		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 890-4784-A-1-C MS
Matrix: Solid
Analysis Batch: 55120

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	254		1250	1506		mg/Kg		100	90 - 110

Lab Sample ID: 890-4784-A-1-D MSD
Matrix: Solid
Analysis Batch: 55120

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	254		1250	1511		mg/Kg		100	90 - 110	0	20

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4786-A-2-C MS
Matrix: Solid
Analysis Batch: 55120

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	284		249	538.7		mg/Kg		102	90 - 110

Lab Sample ID: 890-4786-A-2-D MSD
Matrix: Solid
Analysis Batch: 55120

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	284		249	535.5		mg/Kg		101	90 - 110	1	20

- 1
- 2
- 3
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- 10
- 11
- 12
- 13
- 14

QC Association Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

GC VOA

Prep Batch: 54980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-54980/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 55034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4787-1	SS01	Total/NA	Solid	5035	
890-4787-2	SS02	Total/NA	Solid	5035	
890-4787-3	SS03	Total/NA	Solid	5035	
MB 880-55034/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-55034/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-55034/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-29060-A-8-C MS	Matrix Spike	Total/NA	Solid	5035	
880-29060-A-8-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 55086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4787-1	SS01	Total/NA	Solid	8021B	55034
890-4787-2	SS02	Total/NA	Solid	8021B	55034
890-4787-3	SS03	Total/NA	Solid	8021B	55034
MB 880-54980/5-A	Method Blank	Total/NA	Solid	8021B	54980
MB 880-55034/5-A	Method Blank	Total/NA	Solid	8021B	55034
LCS 880-55034/1-A	Lab Control Sample	Total/NA	Solid	8021B	55034
LCSD 880-55034/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	55034
880-29060-A-8-C MS	Matrix Spike	Total/NA	Solid	8021B	55034
880-29060-A-8-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	55034

Analysis Batch: 55220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4787-1	SS01	Total/NA	Solid	Total BTEX	
890-4787-2	SS02	Total/NA	Solid	Total BTEX	
890-4787-3	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 55158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4787-1	SS01	Total/NA	Solid	8015NM Prep	
890-4787-2	SS02	Total/NA	Solid	8015NM Prep	
890-4787-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-55158/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-55158/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-55158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-29311-A-121-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-29311-A-121-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 55236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4787-1	SS01	Total/NA	Solid	8015B NM	55158
890-4787-2	SS02	Total/NA	Solid	8015B NM	55158
890-4787-3	SS03	Total/NA	Solid	8015B NM	55158
MB 880-55158/1-A	Method Blank	Total/NA	Solid	8015B NM	55158
LCS 880-55158/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	55158

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QC Association Summary

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
 SDG: 03C1588243

GC Semi VOA (Continued)

Analysis Batch: 55236 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-55158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	55158
880-29311-A-121-C MS	Matrix Spike	Total/NA	Solid	8015B NM	55158
880-29311-A-121-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	55158

Analysis Batch: 55418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4787-1	SS01	Total/NA	Solid	8015 NM	
890-4787-2	SS02	Total/NA	Solid	8015 NM	
890-4787-3	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 55022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4787-1	SS01	Soluble	Solid	DI Leach	
890-4787-2	SS02	Soluble	Solid	DI Leach	
890-4787-3	SS03	Soluble	Solid	DI Leach	
MB 880-55022/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-55022/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-55022/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4784-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4784-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-4786-A-2-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4786-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 55120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4787-1	SS01	Soluble	Solid	300.0	55022
890-4787-2	SS02	Soluble	Solid	300.0	55022
890-4787-3	SS03	Soluble	Solid	300.0	55022
MB 880-55022/1-A	Method Blank	Soluble	Solid	300.0	55022
LCS 880-55022/2-A	Lab Control Sample	Soluble	Solid	300.0	55022
LCSD 880-55022/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	55022
890-4784-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	55022
890-4784-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	55022
890-4786-A-2-C MS	Matrix Spike	Soluble	Solid	300.0	55022
890-4786-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	55022

Lab Chronicle

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

Client Sample ID: SS01

Lab Sample ID: 890-4787-1

Date Collected: 06/06/23 09:50

Matrix: Solid

Date Received: 06/06/23 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			4.96 g	5 mL	55034	06/08/23 12:22	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55086	06/10/23 13:25	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55220	06/10/23 18:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55418	06/13/23 12:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	55158	06/09/23 14:01	AJ	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	55236	06/13/23 07:19	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		5			55120	06/09/23 13:00	CH	EET MID

Client Sample ID: SS02

Lab Sample ID: 890-4787-2

Date Collected: 06/06/23 09:55

Matrix: Solid

Date Received: 06/06/23 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			5.05 g	5 mL	55034	06/08/23 12:22	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55086	06/10/23 14:22	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55220	06/10/23 18:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55418	06/13/23 12:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	55158	06/09/23 14:01	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55236	06/13/23 07:42	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		1			55120	06/09/23 13:05	CH	EET MID

Client Sample ID: SS03

Lab Sample ID: 890-4787-3

Date Collected: 06/06/23 10:00

Matrix: Solid

Date Received: 06/06/23 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			5.00 g	5 mL	55034	06/08/23 12:22	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55086	06/10/23 14:42	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55220	06/10/23 18:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55418	06/13/23 12:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	55158	06/09/23 14:01	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55236	06/13/23 08:05	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		20			55120	06/09/23 13:11	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

- 1
- 2
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Method Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

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: Poker Lake Unit 183Q

Job ID: 890-4787-1
SDG: 03C1588243

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4787-1	SS01	Solid	06/06/23 09:50	06/06/23 15:42	0.5'
890-4787-2	SS02	Solid	06/06/23 09:55	06/06/23 15:42	0.5'
890-4787-3	SS03	Solid	06/06/23 10:00	06/06/23 15:42	0.5'

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Environment Testing
Xenco

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

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different):	Garret Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garret.Green@ExxonMobil.com

Project Name:	Poker Lake Unit 183Q	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03C1588243	Due Date:	5 days		
Project Location:	32.24083, -103.9191	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Marilaha O'Dell				
PO #:					

Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	11W-207
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.3
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:	2.30
Total Containers:		Corrected Temperature:	2.0

Parameters	CHLORIDES (EPA: 300.0)		
	TPH (8015)		
	BTEX (8021)		



ANALYSIS REQUEST					
Preservative Codes	None: NO	DI Water: H ₂ O			
	Cool: Cool	MeOH: Me			
	HCL: HC	HNO ₃ : HN			
	H ₂ SO ₄ : H ₂	NaOH: Na			
	H ₃ PO ₄ : HP				
	NaHSO ₄ : NABIS				
	Na ₂ S ₂ O ₃ : NASO ₃				
	Zn Acetate+NaOH: Zn				
	NaOH+Ascorbic Acid: SAPC				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS01	S	6/6/2023	9:50	0.5'	G	1				
SS02	S	6/6/2023	9:55	0.5'	G	1				
SS03	S	6/6/2023	10:00	0.5'	G	1				

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 SiO₂ Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sp 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>[Signature]</i>	<i>[Signature]</i>	6/13/23 1542			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4787-1

SDG Number: 03C1588243

Login Number: 4787

List Number: 1

Creator: Stutzman, Amanda

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: 890-4787-1

SDG Number: 03C1588243

Login Number: 4787

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 06/08/23 10:12 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: Ben Belill
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 6/30/2023 4:33:47 PM

JOB DESCRIPTION

Poker Lake Unit 183Q
SDG NUMBER 03C1588243

JOB NUMBER

890-4858-1

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
6/30/2023 4:33:47 PM

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

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Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Laboratory Job ID: 890-4858-1
SDG: 03C1588243

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Definitions/Glossary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

Job ID: 890-4858-1

Laboratory: Eurofins Carlsbad**Narrative**

**Job Narrative
890-4858-1**

Receipt

The samples were received on 6/23/2023 4:35 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 18.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH01 (890-4858-1) and PH01A (890-4858-2).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-56542/5-A). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: PH01 (890-4858-1), PH01A (890-4858-2), (880-30102-A-1-E), (880-30102-A-1-F MS) and (880-30102-A-1-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-56502 and analytical batch 880-56450 was outside the upper control limits.

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

HPLC/IC

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



Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

Client Sample ID: PH01

Lab Sample ID: 890-4858-1

Date Collected: 06/23/23 09:30

Matrix: Solid

Date Received: 06/23/23 16:35

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		06/29/23 08:40	06/29/23 19:46	1
Toluene	<0.00201	U	0.00201	mg/Kg		06/29/23 08:40	06/29/23 19:46	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/29/23 08:40	06/29/23 19:46	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/29/23 08:40	06/29/23 19:46	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/29/23 08:40	06/29/23 19:46	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/29/23 08:40	06/29/23 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	06/29/23 08:40	06/29/23 19:46	1
1,4-Difluorobenzene (Surr)	84		70 - 130	06/29/23 08:40	06/29/23 19:46	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			06/30/23 15:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			06/29/23 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		06/28/23 13:20	06/29/23 05:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		06/28/23 13:20	06/29/23 05:25	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		06/28/23 13:20	06/29/23 05:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	182	S1+	70 - 130	06/28/23 13:20	06/29/23 05:25	1
o-Terphenyl	167	S1+	70 - 130	06/28/23 13:20	06/29/23 05:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	529		4.98	mg/Kg			06/27/23 22:51	1

Client Sample ID: PH01A

Lab Sample ID: 890-4858-2

Date Collected: 06/23/23 09:45

Matrix: Solid

Date Received: 06/23/23 16:35

Sample Depth: 4

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		06/29/23 08:40	06/29/23 20:07	1
Toluene	<0.00202	U	0.00202	mg/Kg		06/29/23 08:40	06/29/23 20:07	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/29/23 08:40	06/29/23 20:07	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		06/29/23 08:40	06/29/23 20:07	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/29/23 08:40	06/29/23 20:07	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		06/29/23 08:40	06/29/23 20:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	06/29/23 08:40	06/29/23 20:07	1

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Client Sample Results

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
 SDG: 03C1588243

Client Sample ID: PH01A

Lab Sample ID: 890-4858-2

Date Collected: 06/23/23 09:45

Matrix: Solid

Date Received: 06/23/23 16:35

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	87		70 - 130	06/29/23 08:40	06/29/23 20:07	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			06/30/23 15:46	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			06/29/23 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/28/23 13:20	06/29/23 05:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/28/23 13:20	06/29/23 05:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/28/23 13:20	06/29/23 05:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	199	S1+	70 - 130	06/28/23 13:20	06/29/23 05:47	1
o-Terphenyl	185	S1+	70 - 130	06/28/23 13:20	06/29/23 05:47	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	272		4.95	mg/Kg			06/27/23 22:57	1

Surrogate Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
880-30147-A-1-C MS	Matrix Spike	103	110
880-30147-A-1-D MSD	Matrix Spike Duplicate	104	115
890-4858-1	PH01	80	84
890-4858-2	PH01A	79	87
LCS 880-56542/1-A	Lab Control Sample	101	108
LCSD 880-56542/2-A	Lab Control Sample Dup	107	113
MB 880-56542/5-A	Method Blank	68 S1-	99

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1	OTPH1
		(70-130)	(70-130)
880-30102-A-1-F MS	Matrix Spike	210 S1+	158 S1+
880-30102-A-1-G MSD	Matrix Spike Duplicate	180 S1+	133 S1+
890-4858-1	PH01	182 S1+	167 S1+
890-4858-2	PH01A	199 S1+	185 S1+
LCS 880-56502/2-A	Lab Control Sample	112	100
LCSD 880-56502/3-A	Lab Control Sample Dup	108	96
MB 880-56502/1-A	Method Blank	131 S1+	117

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-56542/5-A
Matrix: Solid
Analysis Batch: 56541

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56542

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/29/23 08:40	06/29/23 12:06	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/29/23 08:40	06/29/23 12:06	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/29/23 08:40	06/29/23 12:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/29/23 08:40	06/29/23 12:06	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/29/23 08:40	06/29/23 12:06	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/29/23 08:40	06/29/23 12:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68	S1-	70 - 130	06/29/23 08:40	06/29/23 12:06	1
1,4-Difluorobenzene (Surr)	99		70 - 130	06/29/23 08:40	06/29/23 12:06	1

Lab Sample ID: LCS 880-56542/1-A
Matrix: Solid
Analysis Batch: 56541

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1215		mg/Kg		121	70 - 130
Toluene	0.100	0.1122		mg/Kg		112	70 - 130
Ethylbenzene	0.100	0.1133		mg/Kg		113	70 - 130
m-Xylene & p-Xylene	0.200	0.2384		mg/Kg		119	70 - 130
o-Xylene	0.100	0.1147		mg/Kg		115	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-56542/2-A
Matrix: Solid
Analysis Batch: 56541

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56542

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1186		mg/Kg		119	70 - 130	2	35
Toluene	0.100	0.1098		mg/Kg		110	70 - 130	2	35
Ethylbenzene	0.100	0.1112		mg/Kg		111	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2328		mg/Kg		116	70 - 130	2	35
o-Xylene	0.100	0.1120		mg/Kg		112	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: 880-30147-A-1-C MS
Matrix: Solid
Analysis Batch: 56541

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 56542

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0996	0.1116		mg/Kg		112	70 - 130
Toluene	<0.00201	U	0.0996	0.1034		mg/Kg		103	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

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

Lab Sample ID: 880-30147-A-1-C MS
Matrix: Solid
Analysis Batch: 56541

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 56542

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits	
	Result	Qualifier		Result	Qualifier					
Ethylbenzene	<0.00201	U	0.0996	0.1007		mg/Kg		101	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2088		mg/Kg		105	70 - 130	
o-Xylene	<0.00201	U	0.0996	0.1007		mg/Kg		101	70 - 130	
		MS	MS							
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	103		70 - 130							
1,4-Difluorobenzene (Surr)	110		70 - 130							

Lab Sample ID: 880-30147-A-1-D MSD
Matrix: Solid
Analysis Batch: 56541

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 56542

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00201	U	0.0994	0.1205		mg/Kg		121	70 - 130	8	35
Toluene	<0.00201	U	0.0994	0.1069		mg/Kg		107	70 - 130	3	35
Ethylbenzene	<0.00201	U	0.0994	0.1038		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2146		mg/Kg		108	70 - 130	3	35
o-Xylene	<0.00201	U	0.0994	0.1036		mg/Kg		104	70 - 130	3	35
		MSD	MSD								
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	104		70 - 130								
1,4-Difluorobenzene (Surr)	115		70 - 130								

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

Lab Sample ID: MB 880-56502/1-A
Matrix: Solid
Analysis Batch: 56450

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56502

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		06/28/23 13:20	06/28/23 20:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/28/23 13:20	06/28/23 20:49	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/28/23 13:20	06/28/23 20:49	1
		MB	MB					
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	131	S1+	70 - 130	06/28/23 13:20	06/28/23 20:49	1		
o-Terphenyl	117		70 - 130	06/28/23 13:20	06/28/23 20:49	1		

Lab Sample ID: LCS 880-56502/2-A
Matrix: Solid
Analysis Batch: 56450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56502

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	1220		mg/Kg		122	70 - 130
Diesel Range Organics (Over C10-C28)	1000	907.8		mg/Kg		91	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

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

Lab Sample ID: LCS 880-56502/2-A
Matrix: Solid
Analysis Batch: 56450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56502

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	112		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: LCSD 880-56502/3-A
Matrix: Solid
Analysis Batch: 56450

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56502

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	1263		mg/Kg		126	70 - 130	4	20	
Diesel Range Organics (Over C10-C28)	1000	967.6		mg/Kg		97	70 - 130	6	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	108		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 880-30102-A-1-F MS
Matrix: Solid
Analysis Batch: 56450

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 56502

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	999	1118		mg/Kg		110	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1112		mg/Kg		110	70 - 130	

Surrogate	MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	210	S1+	70 - 130
o-Terphenyl	158	S1+	70 - 130

Lab Sample ID: 880-30102-A-1-G MSD
Matrix: Solid
Analysis Batch: 56450

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 56502

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	998	1023		mg/Kg		101	70 - 130	9	20	
Diesel Range Organics (Over C10-C28)	<49.9	U	998	954.3		mg/Kg		94	70 - 130	15	20	

Surrogate	MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	180	S1+	70 - 130
o-Terphenyl	133	S1+	70 - 130

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QC Sample Results

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
 SDG: 03C1588243

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-56386/1-A
 Matrix: Solid
 Analysis Batch: 56440

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			06/27/23 20:13	1

Lab Sample ID: LCS 880-56386/2-A
 Matrix: Solid
 Analysis Batch: 56440

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	244.2		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-56386/3-A
 Matrix: Solid
 Analysis Batch: 56440

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	244.2		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 890-4857-A-9-B MS
 Matrix: Solid
 Analysis Batch: 56440

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	73.7		252	322.6		mg/Kg		99	90 - 110

Lab Sample ID: 890-4857-A-9-C MSD
 Matrix: Solid
 Analysis Batch: 56440

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	73.7		252	323.1		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

GC VOA

Analysis Batch: 56541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4858-1	PH01	Total/NA	Solid	8021B	56542
890-4858-2	PH01A	Total/NA	Solid	8021B	56542
MB 880-56542/5-A	Method Blank	Total/NA	Solid	8021B	56542
LCS 880-56542/1-A	Lab Control Sample	Total/NA	Solid	8021B	56542
LCSD 880-56542/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	56542
880-30147-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	56542
880-30147-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	56542

Prep Batch: 56542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4858-1	PH01	Total/NA	Solid	5035	
890-4858-2	PH01A	Total/NA	Solid	5035	
MB 880-56542/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-56542/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-56542/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30147-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-30147-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 56722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4858-1	PH01	Total/NA	Solid	Total BTEX	
890-4858-2	PH01A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 56450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4858-1	PH01	Total/NA	Solid	8015B NM	56502
890-4858-2	PH01A	Total/NA	Solid	8015B NM	56502
MB 880-56502/1-A	Method Blank	Total/NA	Solid	8015B NM	56502
LCS 880-56502/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	56502
LCSD 880-56502/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	56502
880-30102-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	56502
880-30102-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	56502

Prep Batch: 56502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4858-1	PH01	Total/NA	Solid	8015NM Prep	
890-4858-2	PH01A	Total/NA	Solid	8015NM Prep	
MB 880-56502/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-56502/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-56502/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-30102-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-30102-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 56550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4858-1	PH01	Total/NA	Solid	8015 NM	
890-4858-2	PH01A	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

HPLC/IC

Leach Batch: 56386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4858-1	PH01	Soluble	Solid	DI Leach	
890-4858-2	PH01A	Soluble	Solid	DI Leach	
MB 880-56386/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-56386/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-56386/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4857-A-9-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4857-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 56440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4858-1	PH01	Soluble	Solid	300.0	56386
890-4858-2	PH01A	Soluble	Solid	300.0	56386
MB 880-56386/1-A	Method Blank	Soluble	Solid	300.0	56386
LCS 880-56386/2-A	Lab Control Sample	Soluble	Solid	300.0	56386
LCSD 880-56386/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	56386
890-4857-A-9-B MS	Matrix Spike	Soluble	Solid	300.0	56386
890-4857-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	56386

Lab Chronicle

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
 SDG: 03C1588243

Client Sample ID: PH01

Lab Sample ID: 890-4858-1

Date Collected: 06/23/23 09:30

Matrix: Solid

Date Received: 06/23/23 16:35

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	56542	06/29/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56541	06/29/23 19:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56722	06/30/23 15:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			56550	06/29/23 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	56502	06/28/23 13:20	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56450	06/29/23 05:25	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	56386	06/27/23 09:33	CH	EET MID
Soluble	Analysis	300.0		1			56440	06/27/23 22:51	CH	EET MID

Client Sample ID: PH01A

Lab Sample ID: 890-4858-2

Date Collected: 06/23/23 09:45

Matrix: Solid

Date Received: 06/23/23 16:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	56542	06/29/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56541	06/29/23 20:07	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56722	06/30/23 15:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			56550	06/29/23 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	56502	06/28/23 13:20	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56450	06/29/23 05:47	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	56386	06/27/23 09:33	CH	EET MID
Soluble	Analysis	300.0		1			56440	06/27/23 22:57	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: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

- 1
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Method Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

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: Poker Lake Unit 183Q

Job ID: 890-4858-1
SDG: 03C1588243

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4858-1	PH01	Solid	06/23/23 09:30	06/23/23 16:35	1
890-4858-2	PH01A	Solid	06/23/23 09:45	06/23/23 16:35	4

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4858-1

SDG Number: 03C1588243

Login Number: 4858

List Source: Eurofins Carlsbad

List Number: 1

Creator: Clifton, Cloe

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-4858-1

SDG Number: 03C1588243

Login Number: 4858

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 06/27/23 10:29 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 6/30/2023 4:28:50 PM

JOB DESCRIPTION

Poker Lake Unit 183Q
 SDG NUMBER 03C1588243

JOB NUMBER

890-4867-1

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



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6/30/2023 4:28:50 PM

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

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Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Laboratory Job ID: 890-4867-1
SDG: 03C1588243

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Definitions/Glossary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Job ID: 890-4867-1

Laboratory: Eurofins Carlsbad**Narrative****Job Narrative
890-4867-1****Receipt**

The samples were received on 6/26/2023 4:56 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 14.2°C

Receipt Exceptions

The following were received and analyzed from an unpreserved bulk soil jar: PH02 (890-4867-1), FS03 (890-4867-2), SW03 (890-4867-3), FS02 (890-4867-4), SW02 (890-4867-5), FS01 (890-4867-6), SW01 (890-4867-7), FS04 (890-4867-8), FS05 (890-4867-9), SW04 (890-4867-10) and SW05 (890-4867-11).

GC VOA

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-56543 and analytical batch 880-56598 recovered outside control limits for the following analytes: Benzene, Toluene, Ethylbenzene and m-Xylene & p-Xylene. Since only an acceptable LCS is required per the method, the data has been qualified and reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-56597 and analytical batch 880-56600 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-56597 and analytical batch 880-56600 recovered outside control limits for the following analytes: Benzene and Toluene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-56543/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-56543 and analytical batch 880-56598 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-56560 and analytical batch 880-56535 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-56535 recovered above the upper control limit for Diesel Range Organics (Over C10-C28). An acceptable CCV was ran within the 12 hour window; therefore, the data have been reported. The associated sample is impacted: (CCV 880-56535/47).

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

HPLC/IC

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



Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Client Sample ID: PH02

Lab Sample ID: 890-4867-1

Date Collected: 06/26/23 09:30

Matrix: Solid

Date Received: 06/26/23 16:56

Sample Depth: 3

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		06/29/23 11:48	06/29/23 17:59	1
Toluene	<0.00202	U ** F1	0.00202	mg/Kg		06/29/23 11:48	06/29/23 17:59	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/29/23 11:48	06/29/23 17:59	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		06/29/23 11:48	06/29/23 17:59	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/29/23 11:48	06/29/23 17:59	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		06/29/23 11:48	06/29/23 17:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	06/29/23 11:48	06/29/23 17:59	1
1,4-Difluorobenzene (Surr)	92		70 - 130	06/29/23 11:48	06/29/23 17:59	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			06/30/23 15:34	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			06/30/23 10:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		06/29/23 09:50	06/29/23 22:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/29/23 22:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/29/23 22:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	06/29/23 09:50	06/29/23 22:37	1
o-Terphenyl	94		70 - 130	06/29/23 09:50	06/29/23 22:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	138		5.00	mg/Kg			06/28/23 19:08	1

Client Sample ID: FS03

Lab Sample ID: 890-4867-2

Date Collected: 06/26/23 09:35

Matrix: Solid

Date Received: 06/26/23 16:56

Sample Depth: 4

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		06/29/23 11:48	06/29/23 18:19	1
Toluene	<0.00202	U **	0.00202	mg/Kg		06/29/23 11:48	06/29/23 18:19	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/29/23 11:48	06/29/23 18:19	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		06/29/23 11:48	06/29/23 18:19	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/29/23 11:48	06/29/23 18:19	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		06/29/23 11:48	06/29/23 18:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	06/29/23 11:48	06/29/23 18:19	1

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Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Client Sample ID: FS03

Lab Sample ID: 890-4867-2

Date Collected: 06/26/23 09:35

Matrix: Solid

Date Received: 06/26/23 16:56

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	06/29/23 11:48	06/29/23 18:19	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			06/30/23 15:34	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			06/30/23 10:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		06/29/23 09:50	06/29/23 23:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/29/23 23:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/29/23 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	06/29/23 09:50	06/29/23 23:44	1
o-Terphenyl	94		70 - 130	06/29/23 09:50	06/29/23 23:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	136		5.03	mg/Kg			06/28/23 19:13	1

Client Sample ID: SW03

Lab Sample ID: 890-4867-3

Date Collected: 06/26/23 09:40

Matrix: Solid

Date Received: 06/26/23 16:56

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		06/29/23 11:48	06/29/23 18:40	1
Toluene	<0.00200	U **	0.00200	mg/Kg		06/29/23 11:48	06/29/23 18:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/29/23 11:48	06/29/23 18:40	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		06/29/23 11:48	06/29/23 18:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/29/23 11:48	06/29/23 18:40	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		06/29/23 11:48	06/29/23 18:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	06/29/23 11:48	06/29/23 18:40	1
1,4-Difluorobenzene (Surr)	106		70 - 130	06/29/23 11:48	06/29/23 18:40	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			06/30/23 15:34	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			06/30/23 10:55	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Client Sample ID: SW03

Lab Sample ID: 890-4867-3

Date Collected: 06/26/23 09:40

Matrix: Solid

Date Received: 06/26/23 16:56

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	<50.0	U *1	50.0	mg/Kg		06/29/23 09:50	06/30/23 00:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/29/23 09:50	06/30/23 00:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/29/23 09:50	06/30/23 00:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			06/29/23 09:50	06/30/23 00:07	1
o-Terphenyl	103		70 - 130			06/29/23 09:50	06/30/23 00:07	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		5.01	mg/Kg			06/28/23 19:18	1

Client Sample ID: FS02

Lab Sample ID: 890-4867-4

Date Collected: 06/26/23 09:45

Matrix: Solid

Date Received: 06/26/23 16:56

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		06/29/23 11:48	06/29/23 19:00	1
Toluene	<0.00199	U **	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:00	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 19:00	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:00	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 19:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			06/29/23 11:48	06/29/23 19:00	1
1,4-Difluorobenzene (Surr)	101		70 - 130			06/29/23 11:48	06/29/23 19:00	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/30/23 15:34	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			06/30/23 10:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		06/29/23 09:50	06/30/23 00:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 00:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 00:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130			06/29/23 09:50	06/30/23 00:29	1
o-Terphenyl	111		70 - 130			06/29/23 09:50	06/30/23 00:29	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Client Sample ID: FS02

Lab Sample ID: 890-4867-4

Date Collected: 06/26/23 09:45
Date Received: 06/26/23 16:56
Sample Depth: 4

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	94.0		5.05	mg/Kg			06/28/23 19:33	1

Client Sample ID: SW02

Lab Sample ID: 890-4867-5

Date Collected: 06/26/23 09:50
Date Received: 06/26/23 16:56
Sample Depth: 0 - 4

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:21	1
Toluene	<0.00199	U **	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:21	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 19:21	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:21	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 19:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			06/29/23 11:48	06/29/23 19:21	1
1,4-Difluorobenzene (Surr)	101		70 - 130			06/29/23 11:48	06/29/23 19:21	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/30/23 15:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			06/30/23 10:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8	mg/Kg		06/29/23 09:50	06/30/23 00:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		06/29/23 09:50	06/30/23 00:51	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		06/29/23 09:50	06/30/23 00:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			06/29/23 09:50	06/30/23 00:51	1
o-Terphenyl	88		70 - 130			06/29/23 09:50	06/30/23 00:51	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	737		5.00	mg/Kg			06/28/23 19:39	1

Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Client Sample ID: FS01

Lab Sample ID: 890-4867-6

Date Collected: 06/26/23 09:55

Matrix: Solid

Date Received: 06/26/23 16:56

Sample Depth: 4

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		06/29/23 11:48	06/29/23 19:42	1
Toluene	<0.00202	U **	0.00202	mg/Kg		06/29/23 11:48	06/29/23 19:42	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/29/23 11:48	06/29/23 19:42	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		06/29/23 11:48	06/29/23 19:42	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/29/23 11:48	06/29/23 19:42	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		06/29/23 11:48	06/29/23 19:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	06/29/23 11:48	06/29/23 19:42	1
1,4-Difluorobenzene (Surr)	98		70 - 130	06/29/23 11:48	06/29/23 19:42	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			06/30/23 15:34	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			06/30/23 10:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		06/29/23 09:50	06/30/23 01:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 01:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 01:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	06/29/23 09:50	06/30/23 01:14	1
o-Terphenyl	103		70 - 130	06/29/23 09:50	06/30/23 01:14	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.0		5.02	mg/Kg			06/28/23 19:44	1

Client Sample ID: SW01

Lab Sample ID: 890-4867-7

Date Collected: 06/26/23 10:00

Matrix: Solid

Date Received: 06/26/23 16:56

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		06/29/23 11:48	06/29/23 20:02	1
Toluene	<0.00199	U **	0.00199	mg/Kg		06/29/23 11:48	06/29/23 20:02	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 20:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 20:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 20:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 20:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	06/29/23 11:48	06/29/23 20:02	1

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Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Client Sample ID: SW01

Lab Sample ID: 890-4867-7

Date Collected: 06/26/23 10:00

Matrix: Solid

Date Received: 06/26/23 16:56

Sample Depth: 0 - 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	101		70 - 130	06/29/23 11:48	06/29/23 20:02	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			06/30/23 15:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			06/30/23 10:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8	mg/Kg		06/29/23 09:50	06/30/23 01:36	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		06/29/23 09:50	06/30/23 01:36	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		06/29/23 09:50	06/30/23 01:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130	06/29/23 09:50	06/30/23 01:36	1
o-Terphenyl	106		70 - 130	06/29/23 09:50	06/30/23 01:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1480		4.95	mg/Kg			06/28/23 19:49	1

Client Sample ID: FS04

Lab Sample ID: 890-4867-8

Date Collected: 06/26/23 14:00

Matrix: Solid

Date Received: 06/26/23 16:56

Sample Depth: 2

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		06/29/23 11:48	06/29/23 20:23	1
Toluene	<0.00201	U **	0.00201	mg/Kg		06/29/23 11:48	06/29/23 20:23	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/29/23 11:48	06/29/23 20:23	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/29/23 11:48	06/29/23 20:23	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/29/23 11:48	06/29/23 20:23	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/29/23 11:48	06/29/23 20:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	06/29/23 11:48	06/29/23 20:23	1
1,4-Difluorobenzene (Surr)	98		70 - 130	06/29/23 11:48	06/29/23 20:23	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			06/30/23 15:34	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			06/30/23 10:55	1

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Client Sample Results

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
 SDG: 03C1588243

Client Sample ID: FS04

Lab Sample ID: 890-4867-8

Date Collected: 06/26/23 14:00

Matrix: Solid

Date Received: 06/26/23 16:56

Sample Depth: 2

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		06/29/23 09:50	06/30/23 01:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 01:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 01:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			06/29/23 09:50	06/30/23 01:59	1
o-Terphenyl	103		70 - 130			06/29/23 09:50	06/30/23 01:59	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.7		4.99	mg/Kg			06/28/23 19:54	1

Client Sample ID: FS05

Lab Sample ID: 890-4867-9

Date Collected: 06/26/23 12:50

Matrix: Solid

Date Received: 06/26/23 16:56

Sample Depth: 2

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		06/29/23 11:48	06/29/23 20:43	1
Toluene	<0.00200	U **	0.00200	mg/Kg		06/29/23 11:48	06/29/23 20:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/29/23 11:48	06/29/23 20:43	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		06/29/23 11:48	06/29/23 20:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/29/23 11:48	06/29/23 20:43	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		06/29/23 11:48	06/29/23 20:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			06/29/23 11:48	06/29/23 20:43	1
1,4-Difluorobenzene (Surr)	100		70 - 130			06/29/23 11:48	06/29/23 20:43	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			06/30/23 15:34	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			06/30/23 10:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		06/29/23 09:50	06/30/23 02:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/29/23 09:50	06/30/23 02:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/29/23 09:50	06/30/23 02:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			06/29/23 09:50	06/30/23 02:21	1
o-Terphenyl	103		70 - 130			06/29/23 09:50	06/30/23 02:21	1

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Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Client Sample ID: FS05

Lab Sample ID: 890-4867-9

Date Collected: 06/26/23 12:50
Date Received: 06/26/23 16:56
Sample Depth: 2

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	84.3		5.00	mg/Kg			06/28/23 19:59	1

Client Sample ID: SW04

Lab Sample ID: 890-4867-10

Date Collected: 06/26/23 12:55
Date Received: 06/26/23 16:56
Sample Depth: 0 - 2

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199	mg/Kg		06/29/23 11:48	06/29/23 21:04	1
Toluene	<0.00199	U **	0.00199	mg/Kg		06/29/23 11:48	06/29/23 21:04	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 21:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 21:04	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 21:04	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 21:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			06/29/23 11:48	06/29/23 21:04	1
1,4-Difluorobenzene (Surr)	104		70 - 130			06/29/23 11:48	06/29/23 21:04	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			06/30/23 15:34	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			06/30/23 10:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		06/29/23 09:50	06/30/23 02:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 02:44	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 02:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130			06/29/23 09:50	06/30/23 02:44	1
o-Terphenyl	106		70 - 130			06/29/23 09:50	06/30/23 02:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39.1		4.97	mg/Kg			06/29/23 09:57	1

Client Sample Results

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
 SDG: 03C1588243

Client Sample ID: SW05

Lab Sample ID: 890-4867-11

Date Collected: 06/26/23 14:30

Matrix: Solid

Date Received: 06/26/23 16:56

Sample Depth: 0 - 2

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		06/29/23 11:48	06/29/23 22:55	1
Toluene	<0.00201	U **	0.00201	mg/Kg		06/29/23 11:48	06/29/23 22:55	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/29/23 11:48	06/29/23 22:55	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/29/23 11:48	06/29/23 22:55	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/29/23 11:48	06/29/23 22:55	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/29/23 11:48	06/29/23 22:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	06/29/23 11:48	06/29/23 22:55	1
1,4-Difluorobenzene (Surr)	96		70 - 130	06/29/23 11:48	06/29/23 22:55	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			06/30/23 15:34	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			06/30/23 10:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		06/29/23 09:50	06/30/23 08:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 08:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 08:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	06/29/23 09:50	06/30/23 08:28	1
o-Terphenyl	96		70 - 130	06/29/23 09:50	06/30/23 08:28	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.3		5.01	mg/Kg			06/29/23 10:02	1

Surrogate Summary

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
 SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-30148-A-4-C MS	Matrix Spike	106	84
880-30148-A-4-D MSD	Matrix Spike Duplicate	104	88
890-4867-1	PH02	95	92
890-4867-1 MS	PH02	109	102
890-4867-1 MSD	PH02	107	100
890-4867-2	FS03	100	102
890-4867-3	SW03	102	106
890-4867-4	FS02	104	101
890-4867-5	SW02	112	101
890-4867-6	FS01	104	98
890-4867-7	SW01	107	101
890-4867-8	FS04	116	98
890-4867-9	FS05	112	100
890-4867-10	SW04	103	104
890-4867-11	SW05	95	96
LCS 880-56543/1-A	Lab Control Sample	105	77
LCS 880-56597/1-A	Lab Control Sample	99	95
LCSD 880-56543/2-A	Lab Control Sample Dup	110	99
LCSD 880-56597/2-A	Lab Control Sample Dup	102	99
MB 880-56543/5-A	Method Blank	63 S1-	86
MB 880-56597/5-A	Method Blank	101	111

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-4867-1	PH02	108	94
890-4867-1 MS	PH02	121	92
890-4867-1 MSD	PH02	113	84
890-4867-2	FS03	108	94
890-4867-3	SW03	119	103
890-4867-4	FS02	130	111
890-4867-5	SW02	102	88
890-4867-6	FS01	118	103
890-4867-7	SW01	123	106
890-4867-8	FS04	119	103
890-4867-9	FS05	120	103
890-4867-10	SW04	123	106
890-4867-11	SW05	111	96
LCS 880-56560/2-A	Lab Control Sample	118	102
LCSD 880-56560/3-A	Lab Control Sample Dup	114	103
MB 880-56560/1-A	Method Blank	121	107

Surrogate Legend

1CO = 1-Chlorooctane

Surrogate Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q
OTPH = o-Terphenyl

Job ID: 890-4867-1
SDG: 03C1588243

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-56543/5-A
Matrix: Solid
Analysis Batch: 56598

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56543

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/29/23 08:45	06/29/23 16:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/29/23 08:45	06/29/23 16:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/29/23 08:45	06/29/23 16:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/29/23 08:45	06/29/23 16:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/29/23 08:45	06/29/23 16:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/29/23 08:45	06/29/23 16:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	63	S1-	70 - 130	06/29/23 08:45	06/29/23 16:14	1
1,4-Difluorobenzene (Surr)	86		70 - 130	06/29/23 08:45	06/29/23 16:14	1

Lab Sample ID: LCS 880-56543/1-A
Matrix: Solid
Analysis Batch: 56598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56543

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1295		mg/Kg		130	70 - 130
Toluene	0.100	0.1263		mg/Kg		126	70 - 130
Ethylbenzene	0.100	0.1208		mg/Kg		121	70 - 130
m-Xylene & p-Xylene	0.200	0.2347		mg/Kg		117	70 - 130
o-Xylene	0.100	0.1254		mg/Kg		125	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	77		70 - 130

Lab Sample ID: LCSD 880-56543/2-A
Matrix: Solid
Analysis Batch: 56598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56543

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1391	*+	mg/Kg		139	70 - 130	7	35
Toluene	0.100	0.1300		mg/Kg		130	70 - 130	3	35
Ethylbenzene	0.100	0.1336	*+	mg/Kg		134	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2618	*+	mg/Kg		131	70 - 130	11	35
o-Xylene	0.100	0.1301		mg/Kg		130	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 880-30148-A-4-C MS
Matrix: Solid
Analysis Batch: 56598

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 56543

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U *+	0.0996	0.07271		mg/Kg		73	70 - 130
Toluene	<0.00201	U F1	0.0996	0.06324	F1	mg/Kg		63	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

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

Lab Sample ID: 880-30148-A-4-C MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 56598

Prep Batch: 56543

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00201	U *+ F1	0.0996	0.05772	F1	mg/Kg		58	70 - 130
m-Xylene & p-Xylene	<0.00402	U *+ F1	0.199	0.1108	F1	mg/Kg		56	70 - 130
o-Xylene	<0.00201	U F1	0.0996	0.05574	F1	mg/Kg		56	70 - 130

Surrogate	MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

Lab Sample ID: 880-30148-A-4-D MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 56598

Prep Batch: 56543

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec	RPD	
	Result	Qualifier		Result	Qualifier					Limits	RPD
Benzene	<0.00201	U *	0.0994	0.06930		mg/Kg		70	70 - 130	5	35
Toluene	<0.00201	U F1	0.0994	0.05814	F1	mg/Kg		58	70 - 130	8	35
Ethylbenzene	<0.00201	U *+ F1	0.0994	0.04689	F1	mg/Kg		47	70 - 130	21	35
m-Xylene & p-Xylene	<0.00402	U *+ F1	0.199	0.08876	F1	mg/Kg		45	70 - 130	22	35
o-Xylene	<0.00201	U F1	0.0994	0.04332	F1	mg/Kg		44	70 - 130	25	35

Surrogate	MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: MB 880-56597/5-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 56600

Prep Batch: 56597

Analyte	MB		RL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier				Prepared	Analyzed			
Benzene	<0.00200	U	0.00200	mg/Kg		06/29/23 11:48	06/29/23 17:30			1
Toluene	<0.00200	U	0.00200	mg/Kg		06/29/23 11:48	06/29/23 17:30			1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/29/23 11:48	06/29/23 17:30			1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/29/23 11:48	06/29/23 17:30			1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/29/23 11:48	06/29/23 17:30			1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/29/23 11:48	06/29/23 17:30			1

Surrogate	MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier		Prepared	Analyzed			
4-Bromofluorobenzene (Surr)	101		70 - 130	06/29/23 11:48	06/29/23 17:30			1
1,4-Difluorobenzene (Surr)	111		70 - 130	06/29/23 11:48	06/29/23 17:30			1

Lab Sample ID: LCS 880-56597/1-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 56600

Prep Batch: 56597

Analyte	Spike	LCS		Unit	D	%Rec	%Rec
		Result	Qualifier				
Benzene	0.100	0.1269		mg/Kg		127	70 - 130
Toluene	0.100	0.1298		mg/Kg		130	70 - 130
Ethylbenzene	0.100	0.1051		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.2093		mg/Kg		105	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

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

Lab Sample ID: LCS 880-56597/1-A
Matrix: Solid
Analysis Batch: 56600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56597

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1006		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 880-56597/2-A
Matrix: Solid
Analysis Batch: 56600

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56597

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1306	*+	mg/Kg		131	70 - 130	3	35
Toluene	0.100	0.1398	*+	mg/Kg		140	70 - 130	7	35
Ethylbenzene	0.100	0.1102		mg/Kg		110	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2161		mg/Kg		108	70 - 130	3	35
o-Xylene	0.100	0.1052		mg/Kg		105	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-4867-1 MS
Matrix: Solid
Analysis Batch: 56600

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 56597

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U *+	0.0996	0.1245		mg/Kg		125	70 - 130
Toluene	<0.00202	U *+ F1	0.0996	0.1332	F1	mg/Kg		134	70 - 130
Ethylbenzene	<0.00202	U	0.0996	0.1148		mg/Kg		115	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.199	0.2323		mg/Kg		117	70 - 130
o-Xylene	<0.00202	U	0.0996	0.1127		mg/Kg		113	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-4867-1 MSD
Matrix: Solid
Analysis Batch: 56600

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 56597

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00202	U *+	0.0990	0.1261		mg/Kg		127	70 - 130	1	35
Toluene	<0.00202	U *+ F1	0.0990	0.1377	F1	mg/Kg		139	70 - 130	3	35
Ethylbenzene	<0.00202	U	0.0990	0.1105		mg/Kg		112	70 - 130	4	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.2221		mg/Kg		112	70 - 130	4	35
o-Xylene	<0.00202	U	0.0990	0.1086		mg/Kg		110	70 - 130	4	35

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

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

Lab Sample ID: 890-4867-1 MSD
Matrix: Solid
Analysis Batch: 56600

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 56597

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

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

Lab Sample ID: MB 880-56560/1-A
Matrix: Solid
Analysis Batch: 56535

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56560

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		06/29/23 09:50	06/29/23 21:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/29/23 09:50	06/29/23 21:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/29/23 09:50	06/29/23 21:29	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	121		70 - 130	06/29/23 09:50	06/29/23 21:29	1
o-Terphenyl	107		70 - 130	06/29/23 09:50	06/29/23 21:29	1

Lab Sample ID: LCS 880-56560/2-A
Matrix: Solid
Analysis Batch: 56535

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	780.0		mg/Kg		78	70 - 130
Diesel Range Organics (Over C10-C28)	1000	893.4		mg/Kg		89	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	118		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-56560/3-A
Matrix: Solid
Analysis Batch: 56535

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56560

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	977.3	*1	mg/Kg		98	70 - 130	22	20
Diesel Range Organics (Over C10-C28)	1000	998.4		mg/Kg		100	70 - 130	11	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	114		70 - 130
o-Terphenyl	103		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

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

Lab Sample ID: 890-4867-1 MS
Matrix: Solid
Analysis Batch: 56535

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 56560

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	998	1213		mg/Kg		120	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1109		mg/Kg		109	70 - 130	
		MS	MS							
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	121		70 - 130							
o-Terphenyl	92		70 - 130							

Lab Sample ID: 890-4867-1 MSD
Matrix: Solid
Analysis Batch: 56535

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 56560

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	997	1081		mg/Kg		107	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1008		mg/Kg		100	70 - 130	9	20
		MSD	MSD								
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	113		70 - 130								
o-Terphenyl	84		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-56483/1-A
Matrix: Solid
Analysis Batch: 56511

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			06/28/23 18:31	1

Lab Sample ID: LCS 880-56483/2-A
Matrix: Solid
Analysis Batch: 56511

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.6		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-56483/3-A
Matrix: Solid
Analysis Batch: 56511

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	250	263.1		mg/Kg		105	90 - 110	2	20

QC Sample Results

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
 SDG: 03C1588243

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4867-9 MS
Matrix: Solid
Analysis Batch: 56511

Client Sample ID: FS05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	84.3		250	339.4		mg/Kg		102	90 - 110

Lab Sample ID: 890-4867-9 MSD
Matrix: Solid
Analysis Batch: 56511

Client Sample ID: FS05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	84.3		250	336.3		mg/Kg		101	90 - 110	1	20

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QC Association Summary

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
 SDG: 03C1588243

GC VOA

Prep Batch: 56543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-56543/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-56543/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-56543/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30148-A-4-C MS	Matrix Spike	Total/NA	Solid	5035	
880-30148-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 56597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4867-1	PH02	Total/NA	Solid	5035	
890-4867-2	FS03	Total/NA	Solid	5035	
890-4867-3	SW03	Total/NA	Solid	5035	
890-4867-4	FS02	Total/NA	Solid	5035	
890-4867-5	SW02	Total/NA	Solid	5035	
890-4867-6	FS01	Total/NA	Solid	5035	
890-4867-7	SW01	Total/NA	Solid	5035	
890-4867-8	FS04	Total/NA	Solid	5035	
890-4867-9	FS05	Total/NA	Solid	5035	
890-4867-10	SW04	Total/NA	Solid	5035	
890-4867-11	SW05	Total/NA	Solid	5035	
MB 880-56597/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-56597/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-56597/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4867-1 MS	PH02	Total/NA	Solid	5035	
890-4867-1 MSD	PH02	Total/NA	Solid	5035	

Analysis Batch: 56598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-56543/5-A	Method Blank	Total/NA	Solid	8021B	56543
LCS 880-56543/1-A	Lab Control Sample	Total/NA	Solid	8021B	56543
LCSD 880-56543/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	56543
880-30148-A-4-C MS	Matrix Spike	Total/NA	Solid	8021B	56543
880-30148-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	56543

Analysis Batch: 56600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4867-1	PH02	Total/NA	Solid	8021B	56597
890-4867-2	FS03	Total/NA	Solid	8021B	56597
890-4867-3	SW03	Total/NA	Solid	8021B	56597
890-4867-4	FS02	Total/NA	Solid	8021B	56597
890-4867-5	SW02	Total/NA	Solid	8021B	56597
890-4867-6	FS01	Total/NA	Solid	8021B	56597
890-4867-7	SW01	Total/NA	Solid	8021B	56597
890-4867-8	FS04	Total/NA	Solid	8021B	56597
890-4867-9	FS05	Total/NA	Solid	8021B	56597
890-4867-10	SW04	Total/NA	Solid	8021B	56597
890-4867-11	SW05	Total/NA	Solid	8021B	56597
MB 880-56597/5-A	Method Blank	Total/NA	Solid	8021B	56597
LCS 880-56597/1-A	Lab Control Sample	Total/NA	Solid	8021B	56597
LCSD 880-56597/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	56597
890-4867-1 MS	PH02	Total/NA	Solid	8021B	56597
890-4867-1 MSD	PH02	Total/NA	Solid	8021B	56597

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QC Association Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

GC VOA

Analysis Batch: 56718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4867-1	PH02	Total/NA	Solid	Total BTEX	
890-4867-2	FS03	Total/NA	Solid	Total BTEX	
890-4867-3	SW03	Total/NA	Solid	Total BTEX	
890-4867-4	FS02	Total/NA	Solid	Total BTEX	
890-4867-5	SW02	Total/NA	Solid	Total BTEX	
890-4867-6	FS01	Total/NA	Solid	Total BTEX	
890-4867-7	SW01	Total/NA	Solid	Total BTEX	
890-4867-8	FS04	Total/NA	Solid	Total BTEX	
890-4867-9	FS05	Total/NA	Solid	Total BTEX	
890-4867-10	SW04	Total/NA	Solid	Total BTEX	
890-4867-11	SW05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 56535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4867-1	PH02	Total/NA	Solid	8015B NM	56560
890-4867-2	FS03	Total/NA	Solid	8015B NM	56560
890-4867-3	SW03	Total/NA	Solid	8015B NM	56560
890-4867-4	FS02	Total/NA	Solid	8015B NM	56560
890-4867-5	SW02	Total/NA	Solid	8015B NM	56560
890-4867-6	FS01	Total/NA	Solid	8015B NM	56560
890-4867-7	SW01	Total/NA	Solid	8015B NM	56560
890-4867-8	FS04	Total/NA	Solid	8015B NM	56560
890-4867-9	FS05	Total/NA	Solid	8015B NM	56560
890-4867-10	SW04	Total/NA	Solid	8015B NM	56560
890-4867-11	SW05	Total/NA	Solid	8015B NM	56560
MB 880-56560/1-A	Method Blank	Total/NA	Solid	8015B NM	56560
LCS 880-56560/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	56560
LCSD 880-56560/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	56560
890-4867-1 MS	PH02	Total/NA	Solid	8015B NM	56560
890-4867-1 MSD	PH02	Total/NA	Solid	8015B NM	56560

Prep Batch: 56560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4867-1	PH02	Total/NA	Solid	8015NM Prep	
890-4867-2	FS03	Total/NA	Solid	8015NM Prep	
890-4867-3	SW03	Total/NA	Solid	8015NM Prep	
890-4867-4	FS02	Total/NA	Solid	8015NM Prep	
890-4867-5	SW02	Total/NA	Solid	8015NM Prep	
890-4867-6	FS01	Total/NA	Solid	8015NM Prep	
890-4867-7	SW01	Total/NA	Solid	8015NM Prep	
890-4867-8	FS04	Total/NA	Solid	8015NM Prep	
890-4867-9	FS05	Total/NA	Solid	8015NM Prep	
890-4867-10	SW04	Total/NA	Solid	8015NM Prep	
890-4867-11	SW05	Total/NA	Solid	8015NM Prep	
MB 880-56560/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-56560/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-56560/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4867-1 MS	PH02	Total/NA	Solid	8015NM Prep	
890-4867-1 MSD	PH02	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

GC Semi VOA

Analysis Batch: 56676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4867-1	PH02	Total/NA	Solid	8015 NM	
890-4867-2	FS03	Total/NA	Solid	8015 NM	
890-4867-3	SW03	Total/NA	Solid	8015 NM	
890-4867-4	FS02	Total/NA	Solid	8015 NM	
890-4867-5	SW02	Total/NA	Solid	8015 NM	
890-4867-6	FS01	Total/NA	Solid	8015 NM	
890-4867-7	SW01	Total/NA	Solid	8015 NM	
890-4867-8	FS04	Total/NA	Solid	8015 NM	
890-4867-9	FS05	Total/NA	Solid	8015 NM	
890-4867-10	SW04	Total/NA	Solid	8015 NM	
890-4867-11	SW05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 56483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4867-1	PH02	Soluble	Solid	DI Leach	
890-4867-2	FS03	Soluble	Solid	DI Leach	
890-4867-3	SW03	Soluble	Solid	DI Leach	
890-4867-4	FS02	Soluble	Solid	DI Leach	
890-4867-5	SW02	Soluble	Solid	DI Leach	
890-4867-6	FS01	Soluble	Solid	DI Leach	
890-4867-7	SW01	Soluble	Solid	DI Leach	
890-4867-8	FS04	Soluble	Solid	DI Leach	
890-4867-9	FS05	Soluble	Solid	DI Leach	
890-4867-10	SW04	Soluble	Solid	DI Leach	
890-4867-11	SW05	Soluble	Solid	DI Leach	
MB 880-56483/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-56483/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-56483/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4867-9 MS	FS05	Soluble	Solid	DI Leach	
890-4867-9 MSD	FS05	Soluble	Solid	DI Leach	

Analysis Batch: 56511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4867-1	PH02	Soluble	Solid	300.0	56483
890-4867-2	FS03	Soluble	Solid	300.0	56483
890-4867-3	SW03	Soluble	Solid	300.0	56483
890-4867-4	FS02	Soluble	Solid	300.0	56483
890-4867-5	SW02	Soluble	Solid	300.0	56483
890-4867-6	FS01	Soluble	Solid	300.0	56483
890-4867-7	SW01	Soluble	Solid	300.0	56483
890-4867-8	FS04	Soluble	Solid	300.0	56483
890-4867-9	FS05	Soluble	Solid	300.0	56483
890-4867-10	SW04	Soluble	Solid	300.0	56483
890-4867-11	SW05	Soluble	Solid	300.0	56483
MB 880-56483/1-A	Method Blank	Soluble	Solid	300.0	56483
LCS 880-56483/2-A	Lab Control Sample	Soluble	Solid	300.0	56483
LCSD 880-56483/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	56483
890-4867-9 MS	FS05	Soluble	Solid	300.0	56483
890-4867-9 MSD	FS05	Soluble	Solid	300.0	56483

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Lab Chronicle

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Client Sample ID: PH02

Lab Sample ID: 890-4867-1

Date Collected: 06/26/23 09:30

Matrix: Solid

Date Received: 06/26/23 16:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 17:59	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/29/23 22:37	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 19:08	CH	EET MID

Client Sample ID: FS03

Lab Sample ID: 890-4867-2

Date Collected: 06/26/23 09:35

Matrix: Solid

Date Received: 06/26/23 16:56

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	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 18:19	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/29/23 23:44	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 19:13	CH	EET MID

Client Sample ID: SW03

Lab Sample ID: 890-4867-3

Date Collected: 06/26/23 09:40

Matrix: Solid

Date Received: 06/26/23 16:56

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	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 18:40	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/30/23 00:07	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 19:18	CH	EET MID

Client Sample ID: FS02

Lab Sample ID: 890-4867-4

Date Collected: 06/26/23 09:45

Matrix: Solid

Date Received: 06/26/23 16:56

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	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 19:00	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Client Sample ID: FS02

Lab Sample ID: 890-4867-4

Date Collected: 06/26/23 09:45

Matrix: Solid

Date Received: 06/26/23 16:56

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			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/30/23 00:29	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 19:33	CH	EET MID

Client Sample ID: SW02

Lab Sample ID: 890-4867-5

Date Collected: 06/26/23 09:50

Matrix: Solid

Date Received: 06/26/23 16:56

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	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 19:21	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/30/23 00:51	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 19:39	CH	EET MID

Client Sample ID: FS01

Lab Sample ID: 890-4867-6

Date Collected: 06/26/23 09:55

Matrix: Solid

Date Received: 06/26/23 16:56

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	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 19:42	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/30/23 01:14	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 19:44	CH	EET MID

Client Sample ID: SW01

Lab Sample ID: 890-4867-7

Date Collected: 06/26/23 10:00

Matrix: Solid

Date Received: 06/26/23 16:56

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	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 20:02	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/30/23 01:36	SM	EET MID

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Lab Chronicle

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
 SDG: 03C1588243

Client Sample ID: SW01

Lab Sample ID: 890-4867-7

Date Collected: 06/26/23 10:00

Matrix: Solid

Date Received: 06/26/23 16:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 19:49	CH	EET MID

Client Sample ID: FS04

Lab Sample ID: 890-4867-8

Date Collected: 06/26/23 14:00

Matrix: Solid

Date Received: 06/26/23 16:56

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	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 20:23	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/30/23 01:59	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 19:54	CH	EET MID

Client Sample ID: FS05

Lab Sample ID: 890-4867-9

Date Collected: 06/26/23 12:50

Matrix: Solid

Date Received: 06/26/23 16:56

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	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 20:43	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/30/23 02:21	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/28/23 19:59	CH	EET MID

Client Sample ID: SW04

Lab Sample ID: 890-4867-10

Date Collected: 06/26/23 12:55

Matrix: Solid

Date Received: 06/26/23 16:56

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	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 21:04	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/30/23 02:44	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/29/23 09:57	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
 SDG: 03C1588243

Client Sample ID: SW05
Date Collected: 06/26/23 14:30
Date Received: 06/26/23 16:56

Lab Sample ID: 890-4867-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	56597	06/29/23 11:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56600	06/29/23 22:55	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56718	06/30/23 15:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			56676	06/30/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	56560	06/29/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56535	06/30/23 08:28	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	56483	06/28/23 09:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	56511	06/29/23 10:02	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: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

- 1
- 2
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Method Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

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: Poker Lake Unit 183Q

Job ID: 890-4867-1
SDG: 03C1588243

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4867-1	PH02	Solid	06/26/23 09:30	06/26/23 16:56	3
890-4867-2	FS03	Solid	06/26/23 09:35	06/26/23 16:56	4
890-4867-3	SW03	Solid	06/26/23 09:40	06/26/23 16:56	0 - 4
890-4867-4	FS02	Solid	06/26/23 09:45	06/26/23 16:56	4
890-4867-5	SW02	Solid	06/26/23 09:50	06/26/23 16:56	0 - 4
890-4867-6	FS01	Solid	06/26/23 09:55	06/26/23 16:56	4
890-4867-7	SW01	Solid	06/26/23 10:00	06/26/23 16:56	0 - 4
890-4867-8	FS04	Solid	06/26/23 14:00	06/26/23 16:56	2
890-4867-9	FS05	Solid	06/26/23 12:50	06/26/23 16:56	2
890-4867-10	SW04	Solid	06/26/23 12:55	06/26/23 16:56	0 - 2
890-4867-11	SW05	Solid	06/26/23 14:30	06/26/23 16:56	0 - 2

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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: _____

www.xenco.com Page 1 of 2

Work Order Comments

Program: UST/PST PRP Brownfields RRC Superfund

State of Project: Reporting: Level II Level III Level IIII PST/UST TRRP Level IV

Deliverables: EDD ADaPT Other: _____

Project Manager: Ben Belli
 Company Name: ENSOLUM LLC
 Address: 3122 National Parks Hwy
 City, State ZIP: Carlsbad, NM 88220
 Phone: 989-854-0852
 Email: Garrett.Green@ExxonMobil.com

Bill to: (if different) Garrett Green
 Company Name: XTO Energy
 Address: 3104 E. Gretna St
 City, State ZIP: Carlsbad, NM 88220

ANALYSIS REQUEST

Project Name: Power Take Unit 1030
 Project Number: 03C1508243
 Project Location: 32 24003-103 01910
 Sampler's Name: Mariana O'Dell
 PO #: _____

SAMPLE RECEIPT

Samples Received Intact: Yes No Temp Blank: Yes No Wet Ice: Yes No

Cooler Custody Seals: Yes No Thermometer ID: TW007
 Sample Custody Seals: Yes No Correction Factor: 0.8
 Total Containers: _____ Temperature Reading: 14.4
 Corrected Temperature: 14.2

Turn Around: Routine Rush
 Due Date: 5 days
 TAT starts the day received by the lab, if received by 4:30pm

Preservative Codes: None: NO DI Water: H₂O
 Cool: Cool MeOH: Me
 HCL: HC HNO₃: HN
 H₂SO₄: H₂ NaOH: Na
 H₃PO₄: HP
 NaHSO₄: NABIS
 Na₂S₂O₃: NaSO₃
 Zn Acetate+NaOH: Zn
 NaOH+Ascorbic Acid: SACP



890-4867 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Sample Comments
PH02	S	6/20/23	9:30	3'	G	1	Chlorides	INCIDENT #:
FS03	S		9:35	4'	C	1	TPH	NAPP 2315.133557
SW03	S		9:40	0-4'	C	1		COST CENTER:
FS02	S		9:45	4'	C	1		1137901001
SW02	S		9:50	0-4'	C	1		API: 30-015-33224
FS01	S		9:55	4'	C	1		Ben Belli
SW01	S		10:00	0-4'	C	1		bbelli@ensolum.com
FS04	S		14:00	2'	C	1		
FS05	S		12:50	2'	C	1		
SW04	S		12:55	0-2'	C	1		

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 SiO₂ 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)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	6/26/23 10:51			



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Eurofins Carlsbad

1089 N Canal St.
 Carlsbad NM 88220
 Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)

Client Contact: **Shipping/Receiving**
 Company: Eurofins Environment Testing South Cent
 Address: 1211 W Florida Ave
 City: Midland
 State Zip: TX, 79701
 Phone: 432-704-5440(Tel)
 Email: WO #
 Project Name: Poker Lake Unit 183Q
 Project #: 89000093
 Site: SSCOW#

Sampler

Phone:

Lab PM: Kramer Jessica

E-Mail: Jessica.Kramer@et.eurofins.com

Accreditations Required (See note): NELAP - Texas

Carrier Tracking Not(s): State of Origin New Mexico

COCC No: 890-1346 1

Page: Page 1 of 2

Job #: 890-4867-1

Preservation Codes

A HCL
 B NaOH
 C Zn Acetate
 D Nitric Acid
 E NaHSO4
 F MeOH
 G Amchlor
 H Ascorbic Acid
 I Ice
 J DI Water
 K EDTA
 L EDA
 M Hexane
 N None
 O AsNaO2
 P Na2OAS
 Q Na2SO3
 R - Na2S2O3
 S H2SO4
 T TSP Dodecylhydrate
 U Acetone
 V MCAA
 W pH 4-5
 Y Trizma
 Z other (specify)

Due Date Requested: 6/30/2023

TAT Requested (days):

PO #:

WO #:

Project #:

SSCOW#:

Field Filtered Sample (Yes or No)

Perform MS/MSD (Yes or No)

8015MOD_NM/8015NM_S_Prep (MOD) Full TPH

8015MOD_Calc

300_ORGFM_28D/DI_LEACH Chloride

8021B/6035FP_Calc (MOD) BTEX

Total_BTEX_GCV

Total Number of containers

Sample Identification - Client ID (Lab ID)

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (M=Water, S=solid, O=overstool, BT=issue, A=Air)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/6035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
PH02 (890-4867-1)	6/26/23	09 30	Mountain	Solid		X	X	X	X	X	X	X	1	
FS03 (890-4867-2)	6/26/23	09 35	Mountain	Solid		X	X	X	X	X	X	X	1	
SWM03 (890-4867-3)	6/26/23	09 40	Mountain	Solid		X	X	X	X	X	X	X	1	
FS02 (890-4867-4)	6/26/23	09 45	Mountain	Solid		X	X	X	X	X	X	X	1	
SWM02 (890-4867-5)	6/26/23	09 50	Mountain	Solid		X	X	X	X	X	X	X	1	
FS01 (890-4867-6)	6/26/23	09 55	Mountain	Solid		X	X	X	X	X	X	X	1	
SWM01 (890-4867-7)	6/26/23	10 00	Mountain	Solid		X	X	X	X	X	X	X	1	
FS04 (890-4867-8)	6/26/23	14 00	Mountain	Solid		X	X	X	X	X	X	X	1	
FS05 (890-4867-9)	6/26/23	12 50	Mountain	Solid		X	X	X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyze & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other institutions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification

Unconfirmed

Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Months

Empty Kit Relinquished by:

Date/Time:

Company:

Method of Shipment:

Relinquished by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Relinquished by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Custody Seals Intact:

Yes No

Custody Seal No

Cooler Temperature(s) °C and Other Remarks

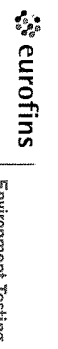
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Eurofins Carlsbad

1089 N Canal St
 Carlsbad, NM 88220
 Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Client Information (Sub Contract Lab)

Client Contact: **Shipping/Receiving**
 Company: Eurofins Environment Testing South Cent
 Address: 1211 W. Florida Ave
 City: Midland
 State Zip: TX, 79701
 Phone: 432-704-5440(Tel)
 Email:
 Project Name: Poker Lake Unit 183Q
 Site:
 Project #: 89000093
 SSOV#:
 Lab Piv: Kramer, Jessica
 E-Mail: Jessica.Kramer@eurofins.com
 Accreditations Required (See note): NELAP - Texas
 State of Origin: New Mexico
 COC No: 890-1346 2
 Page: Page 2 of 2
 Job #: 890-4867-1

Sampler:
 Phone:
 Due Date Requested: 6/30/2023
 TAT Requested (days):
 PO #:
 WO #:
 Project #: 89000093
 SSOV#:
 Lab Piv: Kramer, Jessica
 E-Mail: Jessica.Kramer@eurofins.com
 Accreditations Required (See note): NELAP - Texas
 State of Origin: New Mexico
 COC No: 890-1346 2
 Page: Page 2 of 2
 Job #: 890-4867-1

Carrier Tracking No(s):
 State of Origin: New Mexico
 COC No: 890-1346 2
 Page: Page 2 of 2
 Job #: 890-4867-1

COC No: 890-1346 2
 Page: Page 2 of 2
 Job #: 890-4867-1

Sample ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=owastabil, B=British Issue Anal)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
SWD4 (890-4867-10)	6/26/23	12 55		Solid	X	X	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	1	
SWD5 (890-4867-11)	6/26/23	14 30		Solid	X	X	8015MOD_Calc	1	
					X	X	300_ORGF28DI_LEACH Chloride		
					X	X	8021B/6035FP_Calc (MOD) BTEX		
					X	X	Total_BTEX_GCV		

Analysis Requested

8015MOD_NM/8015NM_S_Prep (MOD) Full TPH

8015MOD_Calc

300_ORGF28DI_LEACH Chloride

8021B/6035FP_Calc (MOD) BTEX

Total_BTEX_GCV

Preservation Codes

A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - Nitric Acid
 F - MeOH
 G - Amnolier
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4.5
 Y - Trizma
 Z - other (specify)

Special Instructions/Note:

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/testing, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to compliance to Eurofins Environment Testing South Central LLC

Possible Hazard Identification

Unconfirmed
 Deliverable Requested I II III IV Other (Specify) Primary Deliverable Rank 2
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by _____ Date/Time _____ Company _____
 Relinquished by _____ Date/Time _____ Company _____
 Relinquished by _____ Date/Time _____ Company _____

Relinquished by _____ Date/Time _____ Company _____
 Relinquished by _____ Date/Time _____ Company _____

Relinquished by _____ Date/Time _____ Company _____
 Relinquished by _____ Date/Time _____ Company _____

Custody Seals Intact: Yes No
 Custody Seal No _____
 Cooler Temperature(s) °C and Other Remarks _____

Method of Shipment: _____ Date/Time _____ Company _____
 Received by: _____ Date/Time _____ Company _____
 Received by: _____ Date/Time _____ Company _____
 Received by: _____ Date/Time _____ Company _____

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4867-1

SDG Number: 03C1588243

Login Number: 4867

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-4867-1

SDG Number: 03C1588243

Login Number: 4867

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 06/28/23 10:43 AM

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

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JOB DESCRIPTION

Poker Lake Unit 183Q
 SDG NUMBER 03C1588243

JOB NUMBER

890-4874-1

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



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

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Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Laboratory Job ID: 890-4874-1
SDG: 03C1588243

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Definitions/Glossary

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
 SDG: 03C1588243

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
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: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

Job ID: 890-4874-1

Laboratory: Eurofins Carlsbad**Narrative****Job Narrative
890-4874-1****Receipt**

The samples were received on 6/28/2023 9:39 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH03 (890-4874-1), FS06 (890-4874-2) and FS07 (890-4874-3).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-4857-A-6-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-56630 and analytical batch 880-56626 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The laboratory control sample (LCS) for preparation batch 880-56630 and analytical batch 880-56626 recovered outside control limits for the following analytes: Benzene. Since only an acceptable LCS or LCSD is required per the method, the LCSD shows recovery for the batch; therefore, the data have been reported.

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

GC Semi VOA

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

HPLC/IC

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



Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

Client Sample ID: PH03

Lab Sample ID: 890-4874-1

Date Collected: 06/27/23 09:10

Matrix: Solid

Date Received: 06/28/23 09:39

Sample Depth: 6

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		06/29/23 14:56	06/30/23 10:21	1
Toluene	<0.00198	U	0.00198	mg/Kg		06/29/23 14:56	06/30/23 10:21	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		06/29/23 14:56	06/30/23 10:21	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		06/29/23 14:56	06/30/23 10:21	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		06/29/23 14:56	06/30/23 10:21	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		06/29/23 14:56	06/30/23 10:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			06/29/23 14:56	06/30/23 10:21	1
1,4-Difluorobenzene (Surr)	112		70 - 130			06/29/23 14:56	06/30/23 10:21	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			06/30/23 15:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			07/03/23 15:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/02/23 11:21	07/03/23 01:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/02/23 11:21	07/03/23 01:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/02/23 11:21	07/03/23 01:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			07/02/23 11:21	07/03/23 01:17	1
o-Terphenyl	80		70 - 130			07/02/23 11:21	07/03/23 01:17	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14800		99.8	mg/Kg			06/30/23 16:26	20

Client Sample ID: FS06

Lab Sample ID: 890-4874-2

Date Collected: 06/27/23 10:40

Matrix: Solid

Date Received: 06/28/23 09:39

Sample Depth: 6

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		06/29/23 14:56	06/30/23 10:42	1
Toluene	<0.00201	U	0.00201	mg/Kg		06/29/23 14:56	06/30/23 10:42	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/29/23 14:56	06/30/23 10:42	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/29/23 14:56	06/30/23 10:42	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/29/23 14:56	06/30/23 10:42	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/29/23 14:56	06/30/23 10:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130			06/29/23 14:56	06/30/23 10:42	1

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Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

Client Sample ID: FS06

Lab Sample ID: 890-4874-2

Date Collected: 06/27/23 10:40

Matrix: Solid

Date Received: 06/28/23 09:39

Sample Depth: 6

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	110		70 - 130	06/29/23 14:56	06/30/23 10:42	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			06/30/23 15:25	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			07/03/23 15:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/02/23 11:21	07/03/23 01:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/02/23 11:21	07/03/23 01:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/02/23 11:21	07/03/23 01:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130	07/02/23 11:21	07/03/23 01:37	1
o-Terphenyl	77		70 - 130	07/02/23 11:21	07/03/23 01:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10600		99.8	mg/Kg			06/30/23 16:42	20

Client Sample ID: FS07

Lab Sample ID: 890-4874-3

Date Collected: 06/27/23 15:15

Matrix: Solid

Date Received: 06/28/23 09:39

Sample Depth: 6

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		06/29/23 14:56	06/30/23 11:03	1
Toluene	<0.00202	U	0.00202	mg/Kg		06/29/23 14:56	06/30/23 11:03	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/29/23 14:56	06/30/23 11:03	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		06/29/23 14:56	06/30/23 11:03	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/29/23 14:56	06/30/23 11:03	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		06/29/23 14:56	06/30/23 11:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	06/29/23 14:56	06/30/23 11:03	1
1,4-Difluorobenzene (Surr)	112		70 - 130	06/29/23 14:56	06/30/23 11:03	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			06/30/23 15:25	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			07/03/23 15:06	1

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Client Sample Results

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
 SDG: 03C1588243

Client Sample ID: FS07

Lab Sample ID: 890-4874-3

Date Collected: 06/27/23 15:15

Matrix: Solid

Date Received: 06/28/23 09:39

Sample Depth: 6

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		07/02/23 11:21	07/03/23 01:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/02/23 11:21	07/03/23 01:58	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/02/23 11:21	07/03/23 01:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130	07/02/23 11:21	07/03/23 01:58	1
o-Terphenyl	77		70 - 130	07/02/23 11:21	07/03/23 01:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15500		100	mg/Kg			06/30/23 16:47	20

Surrogate Summary

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
 SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-4857-A-6-C MS	Matrix Spike	104	101
890-4857-A-6-D MSD	Matrix Spike Duplicate	142 S1+	98
890-4874-1	PH03	100	112
890-4874-2	FS06	97	110
890-4874-3	FS07	100	112
LCS 880-56630/1-A	Lab Control Sample	102	101
LCSD 880-56630/2-A	Lab Control Sample Dup	107	93
MB 880-56572/5-A	Method Blank	97	88
MB 880-56630/5-A	Method Blank	99	85

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4874-1	PH03	81	80
890-4874-2	FS06	78	77
890-4874-3	FS07	78	77
890-4876-A-2-E MS	Matrix Spike	88	77
890-4876-A-2-F MSD	Matrix Spike Duplicate	90	78
LCS 880-56778/2-A	Lab Control Sample	108	108
LCSD 880-56778/3-A	Lab Control Sample Dup	99	95
MB 880-56778/1-A	Method Blank	90	90

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

QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-56572/5-A
Matrix: Solid
Analysis Batch: 56626

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56572

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/29/23 10:49	06/29/23 16:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/29/23 10:49	06/29/23 16:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/29/23 10:49	06/29/23 16:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/29/23 10:49	06/29/23 16:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/29/23 10:49	06/29/23 16:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/29/23 10:49	06/29/23 16:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	06/29/23 10:49	06/29/23 16:56	1
1,4-Difluorobenzene (Surr)	88		70 - 130	06/29/23 10:49	06/29/23 16:56	1

Lab Sample ID: MB 880-56630/5-A
Matrix: Solid
Analysis Batch: 56626

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56630

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/29/23 14:56	06/30/23 03:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/29/23 14:56	06/30/23 03:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/29/23 14:56	06/30/23 03:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/29/23 14:56	06/30/23 03:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/29/23 14:56	06/30/23 03:44	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/29/23 14:56	06/30/23 03:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	06/29/23 14:56	06/30/23 03:44	1
1,4-Difluorobenzene (Surr)	85		70 - 130	06/29/23 14:56	06/30/23 03:44	1

Lab Sample ID: LCS 880-56630/1-A
Matrix: Solid
Analysis Batch: 56626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56630

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1315	*+	mg/Kg		131	70 - 130
Toluene	0.100	0.1282		mg/Kg		128	70 - 130
Ethylbenzene	0.100	0.1065		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.2196		mg/Kg		110	70 - 130
o-Xylene	0.100	0.1065		mg/Kg		107	70 - 130

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

Lab Sample ID: LCSD 880-56630/2-A
Matrix: Solid
Analysis Batch: 56626

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56630

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1000		mg/Kg		100	70 - 130	27	35

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

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

Lab Sample ID: LCSD 880-56630/2-A
Matrix: Solid
Analysis Batch: 56626

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56630

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1123		mg/Kg		112	70 - 130	13	35
Ethylbenzene	0.100	0.09949		mg/Kg		99	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.2142		mg/Kg		107	70 - 130	2	35
o-Xylene	0.100	0.1034		mg/Kg		103	70 - 130	3	35

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

Lab Sample ID: 890-4857-A-6-C MS
Matrix: Solid
Analysis Batch: 56626

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 56630

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U *	0.0996	0.1157		mg/Kg		116	70 - 130		
Toluene	<0.00202	U	0.0996	0.1146		mg/Kg		115	70 - 130		
Ethylbenzene	<0.00202	U	0.0996	0.09322		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene	<0.00404	U F1	0.199	0.1900		mg/Kg		95	70 - 130		
o-Xylene	<0.00202	U	0.0996	0.09099		mg/Kg		91	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 890-4857-A-6-D MSD
Matrix: Solid
Analysis Batch: 56626

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 56630

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U *	0.0994	0.1009		mg/Kg		101	70 - 130	14	35
Toluene	<0.00202	U	0.0994	0.1192		mg/Kg		120	70 - 130	4	35
Ethylbenzene	<0.00202	U	0.0994	0.1170		mg/Kg		118	70 - 130	23	35
m-Xylene & p-Xylene	<0.00404	U F1	0.199	0.2606	F1	mg/Kg		131	70 - 130	31	35
o-Xylene	<0.00202	U	0.0994	0.1265		mg/Kg		127	70 - 130	33	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	142	S1+	70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-56778/1-A
Matrix: Solid
Analysis Batch: 56775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56778

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		07/02/23 11:21	07/02/23 22:31		1

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

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

Lab Sample ID: MB 880-56778/1-A
Matrix: Solid
Analysis Batch: 56775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56778

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/02/23 11:21	07/02/23 22:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/02/23 11:21	07/02/23 22:31	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	90		70 - 130	07/02/23 11:21	07/02/23 22:31	1
o-Terphenyl	90		70 - 130	07/02/23 11:21	07/02/23 22:31	1

Lab Sample ID: LCS 880-56778/2-A
Matrix: Solid
Analysis Batch: 56775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56778

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	956.4		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1053		mg/Kg		105	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	108		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: LCSD 880-56778/3-A
Matrix: Solid
Analysis Batch: 56775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56778

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	
		Result	Qualifier					RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	907.5		mg/Kg		91	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	1012		mg/Kg		101	70 - 130	4	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	99		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: 890-4876-A-2-E MS
Matrix: Solid
Analysis Batch: 56775

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 56778

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	941.9		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	884.1		mg/Kg		86	70 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	88		70 - 130
o-Terphenyl	77		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

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

Lab Sample ID: 890-4876-A-2-F MSD
Matrix: Solid
Analysis Batch: 56775

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 56778

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	998	955.5		mg/Kg		94	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	901.8		mg/Kg		88	70 - 130	2	20
Surrogate	%Recovery	MSD Qualifier	MSD	Limits							
1-Chlorooctane	90			70 - 130							
o-Terphenyl	78			70 - 130							

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-56551/1-A
Matrix: Solid
Analysis Batch: 56693

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			06/30/23 14:37	1

Lab Sample ID: LCS 880-56551/2-A
Matrix: Solid
Analysis Batch: 56693

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	245.5		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-56551/3-A
Matrix: Solid
Analysis Batch: 56693

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	245.4		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 890-4873-A-11-B MS
Matrix: Solid
Analysis Batch: 56693

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	2060		1260	3345		mg/Kg		102	90 - 110

Lab Sample ID: 890-4873-A-11-C MSD
Matrix: Solid
Analysis Batch: 56693

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	2060		1260	3347		mg/Kg		102	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

GC VOA

Prep Batch: 56572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-56572/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 56626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4874-1	PH03	Total/NA	Solid	8021B	56630
890-4874-2	FS06	Total/NA	Solid	8021B	56630
890-4874-3	FS07	Total/NA	Solid	8021B	56630
MB 880-56572/5-A	Method Blank	Total/NA	Solid	8021B	56572
MB 880-56630/5-A	Method Blank	Total/NA	Solid	8021B	56630
LCS 880-56630/1-A	Lab Control Sample	Total/NA	Solid	8021B	56630
LCSD 880-56630/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	56630
890-4857-A-6-C MS	Matrix Spike	Total/NA	Solid	8021B	56630
890-4857-A-6-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	56630

Prep Batch: 56630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4874-1	PH03	Total/NA	Solid	5035	
890-4874-2	FS06	Total/NA	Solid	5035	
890-4874-3	FS07	Total/NA	Solid	5035	
MB 880-56630/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-56630/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-56630/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4857-A-6-C MS	Matrix Spike	Total/NA	Solid	5035	
890-4857-A-6-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 56717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4874-1	PH03	Total/NA	Solid	Total BTEX	
890-4874-2	FS06	Total/NA	Solid	Total BTEX	
890-4874-3	FS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 56775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4874-1	PH03	Total/NA	Solid	8015B NM	56778
890-4874-2	FS06	Total/NA	Solid	8015B NM	56778
890-4874-3	FS07	Total/NA	Solid	8015B NM	56778
MB 880-56778/1-A	Method Blank	Total/NA	Solid	8015B NM	56778
LCS 880-56778/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	56778
LCSD 880-56778/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	56778
890-4876-A-2-E MS	Matrix Spike	Total/NA	Solid	8015B NM	56778
890-4876-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	56778

Prep Batch: 56778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4874-1	PH03	Total/NA	Solid	8015NM Prep	
890-4874-2	FS06	Total/NA	Solid	8015NM Prep	
890-4874-3	FS07	Total/NA	Solid	8015NM Prep	
MB 880-56778/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-56778/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
 SDG: 03C1588243

GC Semi VOA (Continued)

Prep Batch: 56778 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-56778/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4876-A-2-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4876-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 56919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4874-1	PH03	Total/NA	Solid	8015 NM	
890-4874-2	FS06	Total/NA	Solid	8015 NM	
890-4874-3	FS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 56551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4874-1	PH03	Soluble	Solid	DI Leach	
890-4874-2	FS06	Soluble	Solid	DI Leach	
890-4874-3	FS07	Soluble	Solid	DI Leach	
MB 880-56551/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-56551/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-56551/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4873-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4873-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 56693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4874-1	PH03	Soluble	Solid	300.0	56551
890-4874-2	FS06	Soluble	Solid	300.0	56551
890-4874-3	FS07	Soluble	Solid	300.0	56551
MB 880-56551/1-A	Method Blank	Soluble	Solid	300.0	56551
LCS 880-56551/2-A	Lab Control Sample	Soluble	Solid	300.0	56551
LCSD 880-56551/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	56551
890-4873-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	56551
890-4873-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	56551

Lab Chronicle

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
 SDG: 03C1588243

Client Sample ID: PH03

Lab Sample ID: 890-4874-1

Date Collected: 06/27/23 09:10

Matrix: Solid

Date Received: 06/28/23 09:39

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	56630	06/29/23 14:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56626	06/30/23 10:21	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56717	06/30/23 15:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			56919	07/03/23 15:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	56778	07/02/23 11:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56775	07/03/23 01:17	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	56551	06/29/23 09:19	KS	EET MID
Soluble	Analysis	300.0		20			56693	06/30/23 16:26	CH	EET MID

Client Sample ID: FS06

Lab Sample ID: 890-4874-2

Date Collected: 06/27/23 10:40

Matrix: Solid

Date Received: 06/28/23 09:39

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	56630	06/29/23 14:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56626	06/30/23 10:42	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56717	06/30/23 15:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			56919	07/03/23 15:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	56778	07/02/23 11:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56775	07/03/23 01:37	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	56551	06/29/23 09:19	KS	EET MID
Soluble	Analysis	300.0		20			56693	06/30/23 16:42	CH	EET MID

Client Sample ID: FS07

Lab Sample ID: 890-4874-3

Date Collected: 06/27/23 15:15

Matrix: Solid

Date Received: 06/28/23 09:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	56630	06/29/23 14:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56626	06/30/23 11:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56717	06/30/23 15:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			56919	07/03/23 15:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	56778	07/02/23 11:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56775	07/03/23 01:58	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	56551	06/29/23 09:19	KS	EET MID
Soluble	Analysis	300.0		20			56693	06/30/23 16:47	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: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

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

- 1
- 2
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Method Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

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: Poker Lake Unit 183Q

Job ID: 890-4874-1
SDG: 03C1588243

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4874-1	PH03	Solid	06/27/23 09:10	06/28/23 09:39	6
890-4874-2	FS06	Solid	06/27/23 10:40	06/28/23 09:39	6
890-4874-3	FS07	Solid	06/27/23 15:15	06/28/23 09:39	6

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Environment Testing
Xenco

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

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Ben Bellill	Bill to: (if different)	Garrett Green
Company Name:	ENSOLUM, LLC	Company Name:	XTO Energy
Address:	3122 National Park 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

Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

Project Name:	DOKER LAKE UNIT 1B30	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pre-Code	
Project Number:	03C1588243	Due Date:	5 day	ANALYSIS REQUEST	
Project Location:	32.24083,-103.91910	TAT starts the day received by the lab. If received by 4:30pm			
Sampler's Name:	MARIANA O'DELL	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
P.O. #:		Thermometer ID:	RM003		
SAMPLE RECEIPT		Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Samples Received Intact:	Yes No	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes No N/A	Temperature Reading:	1.0		
Sample Custody Seals:	Yes No N/A	Corrected Temperature:	0.8		
Total Containers:					



Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Sample Comments
DH03	S	10/27/23	9:10	0'	G	1	Chlorides	Incident #:
ES06	S		10:40	0'	C	1	TPH	NAPP 2315133557
FS07	S		15:15	0'	C	1	BTEX	Cast center: 1137901001
								API: 30-015-33224
								Ben Bellill: bbellill@ensolum.com

Total 2007/6010 2008/6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ 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)	Received by: (Signature)	Date/Time
<i>MORAN</i>	<i>Joe Coy</i>	10-28-23 9:16			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4874-1

SDG Number: 03C1588243

Login Number: 4874

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-4874-1

SDG Number: 03C1588243

Login Number: 4874

List Source: Eurofins Midland

List Number: 2

List Creation: 06/29/23 10:42 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: Tacoma Morrissey
 Ensolum
 601 N. Marienfeld St.
 Suite 400
 Midland, Texas 79701

Generated 7/6/2023 1:48:57 PM

JOB DESCRIPTION

POKER LAKE UNIT 183 Q
 SDG NUMBER 03C1588243

JOB NUMBER

890-4886-1

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



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

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Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Laboratory Job ID: 890-4886-1
SDG: 03C1588243

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Definitions/Glossary

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

Job ID: 890-4886-1

Laboratory: Eurofins Carlsbad**Narrative****Job Narrative
890-4886-1****Receipt**

The samples were received on 6/30/2023 11:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SW06 (890-4886-1), FS08 (890-4886-2), SW07 (890-4886-3), FS09 (890-4886-4), SW08 (890-4886-5), FS10 (890-4886-6) and SW09 (890-4886-7).

GC VOA

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-56855 and analytical batch 880-56822 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-56907 and analytical batch 880-56814 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS08 (890-4886-2), SW07 (890-4886-3), FS09 (890-4886-4), SW08 (890-4886-5) and FS10 (890-4886-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike (MS) recoveries for preparation batch 880-56907 and analytical batch 880-56814 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-56898 and analytical batch 880-57017 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: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
 SDG: 03C1588243

Client Sample ID: SW06

Lab Sample ID: 890-4886-1

Date Collected: 06/29/23 10:55

Matrix: Solid

Date Received: 06/30/23 11:00

Sample Depth: 0 - 6

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		07/03/23 10:03	07/03/23 14:42	1
Toluene	<0.00200	U F1	0.00200	mg/Kg		07/03/23 10:03	07/03/23 14:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/03/23 10:03	07/03/23 14:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/03/23 10:03	07/03/23 14:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/03/23 10:03	07/03/23 14:42	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/03/23 10:03	07/03/23 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	07/03/23 10:03	07/03/23 14:42	1
1,4-Difluorobenzene (Surr)	96		70 - 130	07/03/23 10:03	07/03/23 14:42	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			07/05/23 12:49	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			07/05/23 11:42	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		07/03/23 12:50	07/04/23 10:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/03/23 12:50	07/04/23 10:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/03/23 12:50	07/04/23 10:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	07/03/23 12:50	07/04/23 10:59	1
o-Terphenyl	94		70 - 130	07/03/23 12:50	07/04/23 10:59	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	149		5.04	mg/Kg			07/06/23 08:45	1

Client Sample ID: FS08

Lab Sample ID: 890-4886-2

Date Collected: 06/29/23 14:20

Matrix: Solid

Date Received: 06/30/23 11:00

Sample Depth: 6

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		07/03/23 10:03	07/03/23 15:02	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/03/23 10:03	07/03/23 15:02	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/03/23 10:03	07/03/23 15:02	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		07/03/23 10:03	07/03/23 15:02	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/03/23 10:03	07/03/23 15:02	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		07/03/23 10:03	07/03/23 15:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	07/03/23 10:03	07/03/23 15:02	1

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Client Sample Results

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

Client Sample ID: FS08

Lab Sample ID: 890-4886-2

Date Collected: 06/29/23 14:20

Matrix: Solid

Date Received: 06/30/23 11:00

Sample Depth: 6

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	96		70 - 130	07/03/23 10:03	07/03/23 15:02	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			07/05/23 12:49	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			07/05/23 11:42	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		07/03/23 12:50	07/04/23 11:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/03/23 12:50	07/04/23 11:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/03/23 12:50	07/04/23 11:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	134	S1+	70 - 130	07/03/23 12:50	07/04/23 11:21	1
o-Terphenyl	115		70 - 130	07/03/23 12:50	07/04/23 11:21	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8540		50.4	mg/Kg			07/06/23 08:51	10

Client Sample ID: SW07

Lab Sample ID: 890-4886-3

Date Collected: 06/29/23 13:20

Matrix: Solid

Date Received: 06/30/23 11:00

Sample Depth: 0 - 6

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		07/03/23 10:03	07/03/23 15:23	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/03/23 10:03	07/03/23 15:23	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/03/23 10:03	07/03/23 15:23	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		07/03/23 10:03	07/03/23 15:23	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/03/23 10:03	07/03/23 15:23	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		07/03/23 10:03	07/03/23 15:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	07/03/23 10:03	07/03/23 15:23	1
1,4-Difluorobenzene (Surr)	96		70 - 130	07/03/23 10:03	07/03/23 15:23	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			07/05/23 12:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			07/05/23 11:42	1

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Client Sample Results

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

Client Sample ID: SW07

Lab Sample ID: 890-4886-3

Date Collected: 06/29/23 13:20

Matrix: Solid

Date Received: 06/30/23 11:00

Sample Depth: 0 - 6

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/04/23 11:42	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/04/23 11:42	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/04/23 11:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	131	S1+	70 - 130			07/03/23 12:50	07/04/23 11:42	1
o-Terphenyl	112		70 - 130			07/03/23 12:50	07/04/23 11:42	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	477	F1	4.99	mg/Kg			07/06/23 08:57	1

Client Sample ID: FS09

Lab Sample ID: 890-4886-4

Date Collected: 06/29/23 15:30

Matrix: Solid

Date Received: 06/30/23 11:00

Sample Depth: 4

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		07/03/23 10:03	07/03/23 15:43	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 15:43	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 15:43	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		07/03/23 10:03	07/03/23 15:43	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 15:43	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		07/03/23 10:03	07/03/23 15:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			07/03/23 10:03	07/03/23 15:43	1
1,4-Difluorobenzene (Surr)	99		70 - 130			07/03/23 10:03	07/03/23 15:43	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			07/05/23 12:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			07/05/23 11:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/05/23 06:59	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/05/23 06:59	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/05/23 06:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			07/03/23 12:50	07/05/23 06:59	1
o-Terphenyl	68	S1-	70 - 130			07/03/23 12:50	07/05/23 06:59	1

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Client Sample Results

Client: Ensolum
 Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
 SDG: 03C1588243

Client Sample ID: FS09

Lab Sample ID: 890-4886-4

Date Collected: 06/29/23 15:30
 Date Received: 06/30/23 11:00
 Sample Depth: 4

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	74.4		5.04	mg/Kg			07/06/23 09:14	1

Client Sample ID: SW08

Lab Sample ID: 890-4886-5

Date Collected: 06/29/23 14:25
 Date Received: 06/30/23 11:00
 Sample Depth: 0 - 6

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 16:04	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 16:04	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 16:04	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		07/03/23 10:03	07/03/23 16:04	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 16:04	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		07/03/23 10:03	07/03/23 16:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			07/03/23 10:03	07/03/23 16:04	1
1,4-Difluorobenzene (Surr)	97		70 - 130			07/03/23 10:03	07/03/23 16:04	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			07/05/23 12:49	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			07/05/23 11:42	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		07/03/23 12:50	07/05/23 07:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/03/23 12:50	07/05/23 07:23	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/03/23 12:50	07/05/23 07:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130			07/03/23 12:50	07/05/23 07:23	1
o-Terphenyl	117		70 - 130			07/03/23 12:50	07/05/23 07:23	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53.3		5.05	mg/Kg			07/06/23 09:20	1

Client Sample Results

Client: Ensolum
 Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
 SDG: 03C1588243

Client Sample ID: FS10

Lab Sample ID: 890-4886-6

Date Collected: 06/29/23 15:40

Matrix: Solid

Date Received: 06/30/23 11:00

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		07/03/23 10:03	07/03/23 16:25	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/03/23 10:03	07/03/23 16:25	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/03/23 10:03	07/03/23 16:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/03/23 10:03	07/03/23 16:25	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/03/23 10:03	07/03/23 16:25	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/03/23 10:03	07/03/23 16:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			07/03/23 10:03	07/03/23 16:25	1
1,4-Difluorobenzene (Surr)	100		70 - 130			07/03/23 10:03	07/03/23 16:25	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/05/23 12:49	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			07/05/23 11:42	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		07/03/23 12:50	07/05/23 07:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/03/23 12:50	07/05/23 07:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/03/23 12:50	07/05/23 07:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	145	S1+	70 - 130			07/03/23 12:50	07/05/23 07:54	1
o-Terphenyl	123		70 - 130			07/03/23 12:50	07/05/23 07:54	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71.2		4.98	mg/Kg			07/06/23 09:38	1

Client Sample ID: SW09

Lab Sample ID: 890-4886-7

Date Collected: 06/29/23 15:35

Matrix: Solid

Date Received: 06/30/23 11:00

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		07/03/23 10:03	07/03/23 16:46	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/03/23 10:03	07/03/23 16:46	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/03/23 10:03	07/03/23 16:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/03/23 10:03	07/03/23 16:46	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/03/23 10:03	07/03/23 16:46	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/03/23 10:03	07/03/23 16:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			07/03/23 10:03	07/03/23 16:46	1

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Client Sample Results

Client: Ensolum
 Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
 SDG: 03C1588243

Client Sample ID: SW09

Lab Sample ID: 890-4886-7

Date Collected: 06/29/23 15:35

Matrix: Solid

Date Received: 06/30/23 11:00

Sample Depth: 0 - 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	07/03/23 10:03	07/03/23 16:46	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			07/05/23 12:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			07/05/23 11:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/05/23 08:16	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/05/23 08:16	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/05/23 08:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	07/03/23 12:50	07/05/23 08:16	1
o-Terphenyl	108		70 - 130	07/03/23 12:50	07/05/23 08:16	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	178		4.95	mg/Kg			07/06/23 09:44	1

Surrogate Summary

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
890-4886-1	SW06	102	96
890-4886-1 MS	SW06	120	93
890-4886-1 MSD	SW06	119	92
890-4886-2	FS08	108	96
890-4886-3	SW07	103	96
890-4886-4	FS09	111	99
890-4886-5	SW08	108	97
890-4886-6	FS10	96	100
890-4886-7	SW09	108	104
LCS 880-56855/1-A	Lab Control Sample	100	92
LCSD 880-56855/2-A	Lab Control Sample Dup	113	100
MB 880-56855/5-A	Method Blank	98	107

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1	OTPH1
		(70-130)	(70-130)
890-4886-1	SW06	110	94
890-4886-2	FS08	134 S1+	115
890-4886-3	SW07	131 S1+	112
890-4886-4	FS09	81	68 S1-
890-4886-5	SW08	133 S1+	117
890-4886-6	FS10	145 S1+	123
890-4886-7	SW09	120	108
890-4887-A-3-D MS	Matrix Spike	107	87
890-4887-A-3-E MSD	Matrix Spike Duplicate	126	100
LCS 880-56907/2-A	Lab Control Sample	88	80
LCSD 880-56907/3-A	Lab Control Sample Dup	93	83
MB 880-56907/1-A	Method Blank	162 S1+	148 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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QC Sample Results

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-56855/5-A
Matrix: Solid
Analysis Batch: 56822

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56855

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/03/23 10:03	07/03/23 14:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/03/23 10:03	07/03/23 14:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/03/23 10:03	07/03/23 14:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/03/23 10:03	07/03/23 14:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/03/23 10:03	07/03/23 14:13	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/03/23 10:03	07/03/23 14:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	07/03/23 10:03	07/03/23 14:13	1
1,4-Difluorobenzene (Surr)	107		70 - 130	07/03/23 10:03	07/03/23 14:13	1

Lab Sample ID: LCS 880-56855/1-A
Matrix: Solid
Analysis Batch: 56822

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56855

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1158		mg/Kg		116	70 - 130
Toluene	0.100	0.1217		mg/Kg		122	70 - 130
Ethylbenzene	0.100	0.09331		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	0.200	0.1785		mg/Kg		89	70 - 130
o-Xylene	0.100	0.08384		mg/Kg		84	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-56855/2-A
Matrix: Solid
Analysis Batch: 56822

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56855

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1274		mg/Kg		127	70 - 130	10	35
Toluene	0.100	0.1303		mg/Kg		130	70 - 130	7	35
Ethylbenzene	0.100	0.1093		mg/Kg		109	70 - 130	16	35
m-Xylene & p-Xylene	0.200	0.2112		mg/Kg		106	70 - 130	17	35
o-Xylene	0.100	0.1027		mg/Kg		103	70 - 130	20	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-4886-1 MS
Matrix: Solid
Analysis Batch: 56822

Client Sample ID: SW06
Prep Type: Total/NA
Prep Batch: 56855

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0994	0.1200		mg/Kg		121	70 - 130
Toluene	<0.00200	U F1	0.0994	0.1287		mg/Kg		129	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

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

Lab Sample ID: 890-4886-1 MS
Matrix: Solid
Analysis Batch: 56822

Client Sample ID: SW06
Prep Type: Total/NA
Prep Batch: 56855

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00200	U	0.0994	0.1103		mg/Kg		111	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2254		mg/Kg		113	70 - 130
o-Xylene	<0.00200	U	0.0994	0.1075		mg/Kg		108	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-4886-1 MSD
Matrix: Solid
Analysis Batch: 56822

Client Sample ID: SW06
Prep Type: Total/NA
Prep Batch: 56855

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00200	U	0.0996	0.1288		mg/Kg		129	70 - 130	7	35
Toluene	<0.00200	U F1	0.0996	0.1423	F1	mg/Kg		143	70 - 130	10	35
Ethylbenzene	<0.00200	U	0.0996	0.1164		mg/Kg		117	70 - 130	5	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2354		mg/Kg		118	70 - 130	4	35
o-Xylene	<0.00200	U	0.0996	0.1116		mg/Kg		112	70 - 130	4	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

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

Lab Sample ID: MB 880-56907/1-A
Matrix: Solid
Analysis Batch: 56814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56907

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		07/03/23 12:50	07/03/23 20:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/03/23 12:50	07/03/23 20:16	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/03/23 12:50	07/03/23 20:16	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	162	S1+	70 - 130	07/03/23 12:50	07/03/23 20:16	1
o-Terphenyl	148	S1+	70 - 130	07/03/23 12:50	07/03/23 20:16	1

Lab Sample ID: LCS 880-56907/2-A
Matrix: Solid
Analysis Batch: 56814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56907

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
Gasoline Range Organics (GRO)-C6-C10	1000	921.8		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	1000	868.7		mg/Kg		87	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

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

Lab Sample ID: LCS 880-56907/2-A
Matrix: Solid
Analysis Batch: 56814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56907

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	88		70 - 130
o-Terphenyl	80		70 - 130

Lab Sample ID: LCSD 880-56907/3-A
Matrix: Solid
Analysis Batch: 56814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56907

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	875.8		mg/Kg		88	70 - 130	5		20
Diesel Range Organics (Over C10-C28)	1000	838.2		mg/Kg		84	70 - 130	4		20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	93		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: 890-4887-A-3-D MS
Matrix: Solid
Analysis Batch: 56814

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 56907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec	
				Result	Qualifier				Limits	RPD
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1108		mg/Kg		107	70 - 130	
Diesel Range Organics (Over C10-C28)	963	F1	1000	1600	F1	mg/Kg		64	70 - 130	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	107		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: 890-4887-A-3-E MSD
Matrix: Solid
Analysis Batch: 56814

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 56907

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	939.5		mg/Kg		91	70 - 130	16		20
Diesel Range Organics (Over C10-C28)	963	F1	997	1875		mg/Kg		91	70 - 130	16		20

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	126		70 - 130
o-Terphenyl	100		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-56898/1-A
Matrix: Solid
Analysis Batch: 57017

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			07/05/23 19:29	1

Lab Sample ID: LCS 880-56898/2-A
Matrix: Solid
Analysis Batch: 57017

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	240.1		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-56898/3-A
Matrix: Solid
Analysis Batch: 57017

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	240.0		mg/Kg		96	90 - 110	0	20

Lab Sample ID: 890-4886-3 MS
Matrix: Solid
Analysis Batch: 57017

Client Sample ID: SW07
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	477	F1	250	661.2	F1	mg/Kg		74	90 - 110

Lab Sample ID: 890-4886-3 MSD
Matrix: Solid
Analysis Batch: 57017

Client Sample ID: SW07
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	477	F1	250	666.8	F1	mg/Kg		76	90 - 110	1	20

QC Association Summary

Client: Ensolum
 Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
 SDG: 03C1588243

GC VOA

Analysis Batch: 56822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4886-1	SW06	Total/NA	Solid	8021B	56855
890-4886-2	FS08	Total/NA	Solid	8021B	56855
890-4886-3	SW07	Total/NA	Solid	8021B	56855
890-4886-4	FS09	Total/NA	Solid	8021B	56855
890-4886-5	SW08	Total/NA	Solid	8021B	56855
890-4886-6	FS10	Total/NA	Solid	8021B	56855
890-4886-7	SW09	Total/NA	Solid	8021B	56855
MB 880-56855/5-A	Method Blank	Total/NA	Solid	8021B	56855
LCS 880-56855/1-A	Lab Control Sample	Total/NA	Solid	8021B	56855
LCSD 880-56855/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	56855
890-4886-1 MS	SW06	Total/NA	Solid	8021B	56855
890-4886-1 MSD	SW06	Total/NA	Solid	8021B	56855

Prep Batch: 56855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4886-1	SW06	Total/NA	Solid	5035	
890-4886-2	FS08	Total/NA	Solid	5035	
890-4886-3	SW07	Total/NA	Solid	5035	
890-4886-4	FS09	Total/NA	Solid	5035	
890-4886-5	SW08	Total/NA	Solid	5035	
890-4886-6	FS10	Total/NA	Solid	5035	
890-4886-7	SW09	Total/NA	Solid	5035	
MB 880-56855/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-56855/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-56855/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4886-1 MS	SW06	Total/NA	Solid	5035	
890-4886-1 MSD	SW06	Total/NA	Solid	5035	

Analysis Batch: 56999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4886-1	SW06	Total/NA	Solid	Total BTEX	
890-4886-2	FS08	Total/NA	Solid	Total BTEX	
890-4886-3	SW07	Total/NA	Solid	Total BTEX	
890-4886-4	FS09	Total/NA	Solid	Total BTEX	
890-4886-5	SW08	Total/NA	Solid	Total BTEX	
890-4886-6	FS10	Total/NA	Solid	Total BTEX	
890-4886-7	SW09	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 56814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4886-1	SW06	Total/NA	Solid	8015B NM	56907
890-4886-2	FS08	Total/NA	Solid	8015B NM	56907
890-4886-3	SW07	Total/NA	Solid	8015B NM	56907
890-4886-4	FS09	Total/NA	Solid	8015B NM	56907
890-4886-5	SW08	Total/NA	Solid	8015B NM	56907
890-4886-6	FS10	Total/NA	Solid	8015B NM	56907
890-4886-7	SW09	Total/NA	Solid	8015B NM	56907
MB 880-56907/1-A	Method Blank	Total/NA	Solid	8015B NM	56907
LCS 880-56907/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	56907

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QC Association Summary

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

GC Semi VOA (Continued)

Analysis Batch: 56814 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-56907/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	56907
890-4887-A-3-D MS	Matrix Spike	Total/NA	Solid	8015B NM	56907
890-4887-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	56907

Prep Batch: 56907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4886-1	SW06	Total/NA	Solid	8015NM Prep	
890-4886-2	FS08	Total/NA	Solid	8015NM Prep	
890-4886-3	SW07	Total/NA	Solid	8015NM Prep	
890-4886-4	FS09	Total/NA	Solid	8015NM Prep	
890-4886-5	SW08	Total/NA	Solid	8015NM Prep	
890-4886-6	FS10	Total/NA	Solid	8015NM Prep	
890-4886-7	SW09	Total/NA	Solid	8015NM Prep	
MB 880-56907/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-56907/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-56907/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4887-A-3-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4887-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 56974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4886-1	SW06	Total/NA	Solid	8015 NM	
890-4886-2	FS08	Total/NA	Solid	8015 NM	
890-4886-3	SW07	Total/NA	Solid	8015 NM	
890-4886-4	FS09	Total/NA	Solid	8015 NM	
890-4886-5	SW08	Total/NA	Solid	8015 NM	
890-4886-6	FS10	Total/NA	Solid	8015 NM	
890-4886-7	SW09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 56898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4886-1	SW06	Soluble	Solid	DI Leach	
890-4886-2	FS08	Soluble	Solid	DI Leach	
890-4886-3	SW07	Soluble	Solid	DI Leach	
890-4886-4	FS09	Soluble	Solid	DI Leach	
890-4886-5	SW08	Soluble	Solid	DI Leach	
890-4886-6	FS10	Soluble	Solid	DI Leach	
890-4886-7	SW09	Soluble	Solid	DI Leach	
MB 880-56898/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-56898/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-56898/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4886-3 MS	SW07	Soluble	Solid	DI Leach	
890-4886-3 MSD	SW07	Soluble	Solid	DI Leach	

Analysis Batch: 57017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4886-1	SW06	Soluble	Solid	300.0	56898
890-4886-2	FS08	Soluble	Solid	300.0	56898
890-4886-3	SW07	Soluble	Solid	300.0	56898

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QC Association Summary

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

HPLC/IC (Continued)

Analysis Batch: 57017 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4886-4	FS09	Soluble	Solid	300.0	56898
890-4886-5	SW08	Soluble	Solid	300.0	56898
890-4886-6	FS10	Soluble	Solid	300.0	56898
890-4886-7	SW09	Soluble	Solid	300.0	56898
MB 880-56898/1-A	Method Blank	Soluble	Solid	300.0	56898
LCS 880-56898/2-A	Lab Control Sample	Soluble	Solid	300.0	56898
LCSD 880-56898/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	56898
890-4886-3 MS	SW07	Soluble	Solid	300.0	56898
890-4886-3 MSD	SW07	Soluble	Solid	300.0	56898

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- 14

Lab Chronicle

Client: Ensolum
 Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
 SDG: 03C1588243

Client Sample ID: SW06

Lab Sample ID: 890-4886-1

Date Collected: 06/29/23 10:55

Matrix: Solid

Date Received: 06/30/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	56855	07/03/23 10:03	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56822	07/03/23 14:42	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56999	07/05/23 12:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			56974	07/05/23 11:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	56907	07/03/23 12:50	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56814	07/04/23 10:59	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	56898	07/03/23 11:57	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57017	07/06/23 08:45	CH	EET MID

Client Sample ID: FS08

Lab Sample ID: 890-4886-2

Date Collected: 06/29/23 14:20

Matrix: Solid

Date Received: 06/30/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	56855	07/03/23 10:03	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56822	07/03/23 15:02	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56999	07/05/23 12:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			56974	07/05/23 11:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	56907	07/03/23 12:50	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56814	07/04/23 11:21	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	56898	07/03/23 11:57	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	57017	07/06/23 08:51	CH	EET MID

Client Sample ID: SW07

Lab Sample ID: 890-4886-3

Date Collected: 06/29/23 13:20

Matrix: Solid

Date Received: 06/30/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	56855	07/03/23 10:03	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56822	07/03/23 15:23	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56999	07/05/23 12:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			56974	07/05/23 11:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	56907	07/03/23 12:50	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56814	07/04/23 11:42	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	56898	07/03/23 11:57	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57017	07/06/23 08:57	CH	EET MID

Client Sample ID: FS09

Lab Sample ID: 890-4886-4

Date Collected: 06/29/23 15:30

Matrix: Solid

Date Received: 06/30/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	56855	07/03/23 10:03	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56822	07/03/23 15:43	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56999	07/05/23 12:49	SM	EET MID

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Lab Chronicle

Client: Ensolum
 Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
 SDG: 03C1588243

Client Sample ID: FS09

Lab Sample ID: 890-4886-4

Date Collected: 06/29/23 15:30

Matrix: Solid

Date Received: 06/30/23 11:00

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			56974	07/05/23 11:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	56907	07/03/23 12:50	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56814	07/05/23 06:59	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	56898	07/03/23 11:57	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57017	07/06/23 09:14	CH	EET MID

Client Sample ID: SW08

Lab Sample ID: 890-4886-5

Date Collected: 06/29/23 14:25

Matrix: Solid

Date Received: 06/30/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	56855	07/03/23 10:03	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56822	07/03/23 16:04	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56999	07/05/23 12:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			56974	07/05/23 11:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	56907	07/03/23 12:50	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56814	07/05/23 07:23	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	56898	07/03/23 11:57	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57017	07/06/23 09:20	CH	EET MID

Client Sample ID: FS10

Lab Sample ID: 890-4886-6

Date Collected: 06/29/23 15:40

Matrix: Solid

Date Received: 06/30/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	56855	07/03/23 10:03	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56822	07/03/23 16:25	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56999	07/05/23 12:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			56974	07/05/23 11:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	56907	07/03/23 12:50	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56814	07/05/23 07:54	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	56898	07/03/23 11:57	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57017	07/06/23 09:38	CH	EET MID

Client Sample ID: SW09

Lab Sample ID: 890-4886-7

Date Collected: 06/29/23 15:35

Matrix: Solid

Date Received: 06/30/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	56855	07/03/23 10:03	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	56822	07/03/23 16:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			56999	07/05/23 12:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			56974	07/05/23 11:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	56907	07/03/23 12:50	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56814	07/05/23 08:16	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

Client Sample ID: SW09

Lab Sample ID: 890-4886-7

Date Collected: 06/29/23 15:35

Matrix: Solid

Date Received: 06/30/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	56898	07/03/23 11:57	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57017	07/06/23 09:44	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: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

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: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

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: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1
SDG: 03C1588243

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4886-1	SW06	Solid	06/29/23 10:55	06/30/23 11:00	0 - 6
890-4886-2	FS08	Solid	06/29/23 14:20	06/30/23 11:00	6
890-4886-3	SW07	Solid	06/29/23 13:20	06/30/23 11:00	0 - 6
890-4886-4	FS09	Solid	06/29/23 15:30	06/30/23 11:00	4
890-4886-5	SW08	Solid	06/29/23 14:25	06/30/23 11:00	0 - 6
890-4886-6	FS10	Solid	06/29/23 15:40	06/30/23 11:00	4
890-4886-7	SW09	Solid	06/29/23 15:35	06/30/23 11:00	0 - 4

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Environment Testing
Xenco

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

Chain of Custody

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:	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

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other: _____

Project Name:	POKER LAKE UNIT 1830	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	0301588243	Due Date:	5 days		
Project Location:	32-24083-103.01910	TAT starts the day received by the lab if received by 4:30pm			
Sampler's Name:	Mariahna O'Dell	Temperature Reading:	3.8		
PO #:		Corrected Temperature:	3.6		
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	710007		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2		
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:	3.8		
Total Containers:					



Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Sample Comments
SW010	S	10/29/23	10:55	0-10'	C	1	Chlorides	INCIDENT #:
ES08	S	11:20	11:20	10'	C	1	BTEX	DAPP 2316133557
SW07	S	13:20	13:20	0-10'	C	1	TPH	COST CENTER:
ES09	S	14:25	14:25	0-10'	C	1		1137901001
SW08	S	15:40	15:40	14'	C	1		API: 30-015-33224
ES10	S	15:35	15:35	0-4'	C	1		
SW09	S							

Total 2007 / 6010 2008 / 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 SiO₂ Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCIP / 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>Ben Belli</i>	<i>Garrett Green</i>	10:30:23 10/30			

1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)		COC No.
Client Contract: Eurofins Environment Testing South Cent		Phone:	Kramer Jessica	State of Origin:		890-1351-1
Company: Eurofins Environment Testing South Cent		Email: Jessica.Kramer@get.eurofins.com		Accreditations Required (See note): NELAP - Texas		Page 1 of 1
Address: 1211 W Florida Ave		Due Date Requested	Analysis Requested		Job #:	
City: Midland		7/6/2023	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH		890-4886-1	
State, Zip: TX, 79701		TAT Requested (days):	8015MOD_Calc		Preservation Codes	
Phone: 432-704-5440(Tel)		PO #:	300_ORGFM_28D/DI_LEACH Chloride		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Email:		WO #:	8021B/6036FP_Calc (MOD) BTEX		M - Hexane N - None O - AsH2O2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (Specify)	
Project Name: POKER LAKE UNIT 183 Q		Project #:	Total_BTEX_GCV		Total Number of containers	
Site: SSOV#:		SSOV#:			Special Instructions/Note.	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/6036FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note.
SW06 (890-4886-1)	6/29/23	10 55	Mountain	Solid	X	X	X	X	X	X	X	1	
FS08 (890-4886-2)	6/29/23	14 20	Mountain	Solid	X	X	X	X	X	X	X	1	
SW07 (890-4886-3)	6/29/23	13 20	Mountain	Solid	X	X	X	X	X	X	X	1	
FS09 (890-4886-4)	6/29/23	15 30	Mountain	Solid	X	X	X	X	X	X	X	1	
SW08 (890-4886-5)	6/29/23	14 25	Mountain	Solid	X	X	X	X	X	X	X	1	
FS10 (890-4886-6)	6/29/23	15 40	Mountain	Solid	X	X	X	X	X	X	X	1	
SW09 (890-4886-7)	6/29/23	15 35	Mountain	Solid	X	X	X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method analyze & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/shipment, being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification

Unconfirmed: _____
 Deliverable Requested I, II, III, IV Other (Specify): _____ Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *DR20* Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: Yes No Custody Seal No: _____
 Cooler Temperature(s) °C and Other Remarks: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements: _____

Received by: *[Signature]* Date/Time: _____ Company: _____
 Received by: *[Signature]* Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4886-1

SDG Number: 03C1588243

Login Number: 4886

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-4886-1

SDG Number: 03C1588243

Login Number: 4886

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 07/03/23 08:26 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
 Ensolum
 601 N. Marienfeld St.
 Suite 400
 Midland, Texas 79701
 Generated 7/28/2023 11:36:00 AM

JOB DESCRIPTION

Poker Lake Unit 183Q
 SDG NUMBER 03C1558243

JOB NUMBER

890-4959-1

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
7/28/2023 11:36:00 AM

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

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Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Laboratory Job ID: 890-4959-1
SDG: 03C1558243

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Definitions/Glossary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

Job ID: 890-4959-1

Laboratory: Eurofins Carlsbad**Narrative****Job Narrative
890-4959-1****Receipt**

The samples were received on 7/18/2023 12:47 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 1.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SW10 (890-4959-1) and SW11 (890-4959-2).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-4956-A-12-D MSD). 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 880-58267 recovered above the upper control limit for m-Xylene & p-Xylene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-58267/2).

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-58153 and analytical batch 880-58267 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-58267 recovered above the upper control limit for Benzene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-58267/51).

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: (MB 880-58344/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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



Client Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

Client Sample ID: SW10

Lab Sample ID: 890-4959-1

Date Collected: 07/18/23 10:00

Matrix: Solid

Date Received: 07/18/23 12:47

Sample Depth: 0 - 4

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		07/20/23 14:20	07/23/23 00:40	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/20/23 14:20	07/23/23 00:40	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/20/23 14:20	07/23/23 00:40	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		07/20/23 14:20	07/23/23 00:40	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/20/23 14:20	07/23/23 00:40	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		07/20/23 14:20	07/23/23 00:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130			07/20/23 14:20	07/23/23 00:40	1
1,4-Difluorobenzene (Surr)	84		70 - 130			07/20/23 14:20	07/23/23 00:40	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			07/24/23 09:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			07/28/23 12:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		07/24/23 16:45	07/27/23 19:07	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		07/24/23 16:45	07/27/23 19:07	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/24/23 16:45	07/27/23 19:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			07/24/23 16:45	07/27/23 19:07	1
o-Terphenyl	121		70 - 130			07/24/23 16:45	07/27/23 19:07	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.2		4.98	mg/Kg			07/19/23 18:58	1

Client Sample ID: SW11

Lab Sample ID: 890-4959-2

Date Collected: 07/18/23 10:35

Matrix: Solid

Date Received: 07/18/23 12:47

Sample Depth: 0 - 4

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		07/20/23 14:20	07/23/23 01:00	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/20/23 14:20	07/23/23 01:00	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/20/23 14:20	07/23/23 01:00	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		07/20/23 14:20	07/23/23 01:00	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/20/23 14:20	07/23/23 01:00	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		07/20/23 14:20	07/23/23 01:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			07/20/23 14:20	07/23/23 01:00	1

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Client Sample Results

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
 SDG: 03C1558243

Client Sample ID: SW11

Lab Sample ID: 890-4959-2

Date Collected: 07/18/23 10:35

Matrix: Solid

Date Received: 07/18/23 12:47

Sample Depth: 0 - 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	70		70 - 130	07/20/23 14:20	07/23/23 01:00	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			07/24/23 09:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			07/28/23 12:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		07/24/23 16:45	07/27/23 19:29	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		07/24/23 16:45	07/27/23 19:29	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		07/24/23 16:45	07/27/23 19:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130	07/24/23 16:45	07/27/23 19:29	1
o-Terphenyl	103		70 - 130	07/24/23 16:45	07/27/23 19:29	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.3		5.05	mg/Kg			07/20/23 21:13	1

Surrogate Summary

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
 SDG: 03C1558243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-4956-A-12-C MS	Matrix Spike	105	109
890-4956-A-12-D MSD	Matrix Spike Duplicate	67 S1-	102
890-4959-1	SW10	80	84
890-4959-2	SW11	92	70
LCS 880-58153/1-A	Lab Control Sample	107	103
LCSD 880-58153/2-A	Lab Control Sample Dup	114	107
MB 880-58152/5-A	Method Blank	72	87
MB 880-58153/5-A	Method Blank	73	89

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4959-1	SW10	98	121
890-4959-2	SW11	84	103
890-4967-A-3-D MS	Matrix Spike	88	98
890-4967-A-3-E MSD	Matrix Spike Duplicate	100	110
LCS 880-58344/2-A	Lab Control Sample	96	123
LCSD 880-58344/3-A	Lab Control Sample Dup	92	112
MB 880-58344/1-A	Method Blank	146 S1+	183 S1+

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

QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-58152/5-A
Matrix: Solid
Analysis Batch: 58267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58152

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/20/23 14:04	07/22/23 11:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/20/23 14:04	07/22/23 11:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/20/23 14:04	07/22/23 11:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/20/23 14:04	07/22/23 11:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/20/23 14:04	07/22/23 11:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/20/23 14:04	07/22/23 11:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130	07/20/23 14:04	07/22/23 11:37	1
1,4-Difluorobenzene (Surr)	87		70 - 130	07/20/23 14:04	07/22/23 11:37	1

Lab Sample ID: MB 880-58153/5-A
Matrix: Solid
Analysis Batch: 58267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58153

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/20/23 14:20	07/22/23 22:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/20/23 14:20	07/22/23 22:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/20/23 14:20	07/22/23 22:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/20/23 14:20	07/22/23 22:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/20/23 14:20	07/22/23 22:15	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/20/23 14:20	07/22/23 22:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130	07/20/23 14:20	07/22/23 22:15	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/20/23 14:20	07/22/23 22:15	1

Lab Sample ID: LCS 880-58153/1-A
Matrix: Solid
Analysis Batch: 58267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58153

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1275		mg/Kg		127	70 - 130
Toluene	0.100	0.1089		mg/Kg		109	70 - 130
Ethylbenzene	0.100	0.1194		mg/Kg		119	70 - 130
m-Xylene & p-Xylene	0.200	0.2473		mg/Kg		124	70 - 130
o-Xylene	0.100	0.1220		mg/Kg		122	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-58153/2-A
Matrix: Solid
Analysis Batch: 58267

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58153

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1125		mg/Kg		113	70 - 130	12	35

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

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

Lab Sample ID: LCSD 880-58153/2-A
Matrix: Solid
Analysis Batch: 58267

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58153

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Toluene	0.100	0.09756		mg/Kg		98	70 - 130	11	35	
Ethylbenzene	0.100	0.1099		mg/Kg		110	70 - 130	8	35	
m-Xylene & p-Xylene	0.200	0.2298		mg/Kg		115	70 - 130	7	35	
o-Xylene	0.100	0.1139		mg/Kg		114	70 - 130	7	35	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-4956-A-12-C MS
Matrix: Solid
Analysis Batch: 58267

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 58153

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	RPD
Benzene	<0.00200	U F1 F2	0.0994	0.1079		mg/Kg		109	70 - 130	
Toluene	<0.00200	U F1 F2	0.0994	0.08779		mg/Kg		87	70 - 130	
Ethylbenzene	<0.00200	U F1 F2	0.0994	0.09645		mg/Kg		97	70 - 130	
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.199	0.1954		mg/Kg		98	70 - 130	
o-Xylene	<0.00200	U F1 F2	0.0994	0.09653		mg/Kg		97	70 - 130	

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

Lab Sample ID: 890-4956-A-12-D MSD
Matrix: Solid
Analysis Batch: 58267

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 58153

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Benzene	<0.00200	U F1 F2	0.0998	0.05218	F1 F2	mg/Kg		52	70 - 130	70	35	
Toluene	<0.00200	U F1 F2	0.0998	0.04482	F1 F2	mg/Kg		44	70 - 130	65	35	
Ethylbenzene	<0.00200	U F1 F2	0.0998	0.04466	F1 F2	mg/Kg		45	70 - 130	73	35	
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.200	0.08105	F1 F2	mg/Kg		40	70 - 130	83	35	
o-Xylene	<0.00200	U F1 F2	0.0998	0.04170	F1 F2	mg/Kg		41	70 - 130	79	35	

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

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

Lab Sample ID: MB 880-58344/1-A
Matrix: Solid
Analysis Batch: 58605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58344

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

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

Lab Sample ID: MB 880-58344/1-A
Matrix: Solid
Analysis Batch: 58605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58344

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/24/23 10:38	07/27/23 08:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/24/23 10:38	07/27/23 08:53	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	146	S1+	70 - 130			07/24/23 10:38	07/27/23 08:53	1
o-Terphenyl	183	S1+	70 - 130			07/24/23 10:38	07/27/23 08:53	1

Lab Sample ID: LCS 880-58344/2-A
Matrix: Solid
Analysis Batch: 58605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58344

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics (Over C10-C28)	1000	948.4		mg/Kg		95	70 - 130
Surrogate	LCS LCS		Limits			%Rec	
	%Recovery	Qualifier					
1-Chlorooctane	96		70 - 130				
o-Terphenyl	123		70 - 130				

Lab Sample ID: LCSD 880-58344/3-A
Matrix: Solid
Analysis Batch: 58605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58344

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	
								RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	811.0		mg/Kg		81	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	885.4		mg/Kg		89	70 - 130	7	20
Surrogate	LCSD LCSD		Limits			%Rec		RPD	Limit
	%Recovery	Qualifier							
1-Chlorooctane	92		70 - 130						
o-Terphenyl	112		70 - 130						

Lab Sample ID: 890-4967-A-3-D MS
Matrix: Solid
Analysis Batch: 58605

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 58344

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics (Over C10-C28)	51.4		997	878.8		mg/Kg		83	70 - 130
Surrogate	MS MS		Limits					%Rec	
	%Recovery	Qualifier							
1-Chlorooctane	88		70 - 130						
o-Terphenyl	98		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

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

Lab Sample ID: 890-4967-A-3-E MSD
Matrix: Solid
Analysis Batch: 58605

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 58344

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	997	1304		mg/Kg		128	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	51.4		997	996.1		mg/Kg		95	70 - 130	13	20
Surrogate	%Recovery	MSD Qualifier									
1-Chlorooctane	100								70 - 130		
o-Terphenyl	110								70 - 130		

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-58027/1-A
Matrix: Solid
Analysis Batch: 58062

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			07/19/23 16:29	1

Lab Sample ID: LCS 880-58027/2-A
Matrix: Solid
Analysis Batch: 58062

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	240.6		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-58027/3-A
Matrix: Solid
Analysis Batch: 58062

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	240.4		mg/Kg		96	90 - 110	0	20

Lab Sample ID: 880-30939-A-9-B MS
Matrix: Solid
Analysis Batch: 58062

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	11900		4970	16760		mg/Kg		98	90 - 110

Lab Sample ID: 880-30939-A-9-C MSD
Matrix: Solid
Analysis Batch: 58062

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	11900		4970	16790		mg/Kg		99	90 - 110	0	20

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QC Sample Results

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-58013/1-A
Matrix: Solid
Analysis Batch: 58159

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			07/20/23 18:10	1

Lab Sample ID: LCS 880-58013/2-A
Matrix: Solid
Analysis Batch: 58159

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	242.4		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-58013/3-A
Matrix: Solid
Analysis Batch: 58159

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	241.7		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-4957-A-11-B MS
Matrix: Solid
Analysis Batch: 58159

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	135		249	361.0		mg/Kg		91	90 - 110

Lab Sample ID: 890-4957-A-11-C MSD
Matrix: Solid
Analysis Batch: 58159

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	135		249	363.1		mg/Kg		92	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

GC VOA

Prep Batch: 58152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-58152/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 58153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4959-1	SW10	Total/NA	Solid	5035	
890-4959-2	SW11	Total/NA	Solid	5035	
MB 880-58153/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-58153/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-58153/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4956-A-12-C MS	Matrix Spike	Total/NA	Solid	5035	
890-4956-A-12-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 58267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4959-1	SW10	Total/NA	Solid	8021B	58153
890-4959-2	SW11	Total/NA	Solid	8021B	58153
MB 880-58152/5-A	Method Blank	Total/NA	Solid	8021B	58152
MB 880-58153/5-A	Method Blank	Total/NA	Solid	8021B	58153
LCS 880-58153/1-A	Lab Control Sample	Total/NA	Solid	8021B	58153
LCSD 880-58153/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	58153
890-4956-A-12-C MS	Matrix Spike	Total/NA	Solid	8021B	58153
890-4956-A-12-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	58153

Analysis Batch: 58330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4959-1	SW10	Total/NA	Solid	Total BTEX	
890-4959-2	SW11	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 58344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4959-1	SW10	Total/NA	Solid	8015NM Prep	
890-4959-2	SW11	Total/NA	Solid	8015NM Prep	
MB 880-58344/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58344/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58344/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4967-A-3-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4967-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 58605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4959-1	SW10	Total/NA	Solid	8015B NM	58344
890-4959-2	SW11	Total/NA	Solid	8015B NM	58344
MB 880-58344/1-A	Method Blank	Total/NA	Solid	8015B NM	58344
LCS 880-58344/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58344
LCSD 880-58344/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58344
890-4967-A-3-D MS	Matrix Spike	Total/NA	Solid	8015B NM	58344
890-4967-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	58344

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

GC Semi VOA

Analysis Batch: 58723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4959-1	SW10	Total/NA	Solid	8015 NM	
890-4959-2	SW11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 58013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4959-2	SW11	Soluble	Solid	DI Leach	
MB 880-58013/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-58013/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-58013/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4957-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4957-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 58027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4959-1	SW10	Soluble	Solid	DI Leach	
MB 880-58027/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-58027/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-58027/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-30939-A-9-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-30939-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 58062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4959-1	SW10	Soluble	Solid	300.0	58027
MB 880-58027/1-A	Method Blank	Soluble	Solid	300.0	58027
LCS 880-58027/2-A	Lab Control Sample	Soluble	Solid	300.0	58027
LCSD 880-58027/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	58027
880-30939-A-9-B MS	Matrix Spike	Soluble	Solid	300.0	58027
880-30939-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	58027

Analysis Batch: 58159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4959-2	SW11	Soluble	Solid	300.0	58013
MB 880-58013/1-A	Method Blank	Soluble	Solid	300.0	58013
LCS 880-58013/2-A	Lab Control Sample	Soluble	Solid	300.0	58013
LCSD 880-58013/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	58013
890-4957-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	58013
890-4957-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	58013

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
 SDG: 03C1558243

Client Sample ID: SW10

Lab Sample ID: 890-4959-1

Date Collected: 07/18/23 10:00

Matrix: Solid

Date Received: 07/18/23 12:47

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	58153	07/20/23 14:20	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58267	07/23/23 00:40	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58330	07/24/23 09:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			58723	07/28/23 12:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	58344	07/24/23 16:45	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 19:07	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	58027	07/19/23 11:26	KS	EET MID
Soluble	Analysis	300.0		1			58062	07/19/23 18:58	CH	EET MID

Client Sample ID: SW11

Lab Sample ID: 890-4959-2

Date Collected: 07/18/23 10:35

Matrix: Solid

Date Received: 07/18/23 12:47

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	58153	07/20/23 14:20	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58267	07/23/23 01:00	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58330	07/24/23 09:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			58723	07/28/23 12:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	58344	07/24/23 16:45	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 19:29	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	58013	07/19/23 10:14	KS	EET MID
Soluble	Analysis	300.0		1			58159	07/20/23 21:13	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: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

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

- 1
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Method Summary

Client: Ensolum
Project/Site: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

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: Poker Lake Unit 183Q

Job ID: 890-4959-1
SDG: 03C1558243

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4959-1	SW10	Solid	07/18/23 10:00	07/18/23 12:47	0 - 4
890-4959-2	SW11	Solid	07/18/23 10:35	07/18/23 12:47	0 - 4

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Environment Testing
Xenco

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

Chain of Custody

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Ben Bellill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.com

Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: _____ Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	
--	--

Project Name:	Poker Lake Unit 183Q	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03C1558243	Due Date:			
Project Location:	Connor Whitman	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:		Temp Blank:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Wet Ice:	<input checked="" type="radio"/> Yes <input type="radio"/> No
PO #:		Samples Received Inact:	Yes <input type="radio"/> No <input checked="" type="radio"/>	Thermometer ID:	TKM007
		Cooler Custody Seals:	Yes <input type="radio"/> No <input checked="" type="radio"/>	Correction Factor:	-0.2
		Sample Custody Seals:	Yes <input type="radio"/> No <input checked="" type="radio"/>	Temperature Reading:	1.2
		Total Containers:	Yes <input type="radio"/> No <input checked="" type="radio"/>	Corrected Temperature:	1.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Sample Comments
SW10	S	7/18/2023	10:00	0-4'	Comp	1	CHLORIDES (EPA: 3000.0)	
SW11	S	7/18/2023	10:35	0-4'	Comp	1	TPH (8015)	
							BTEX (8021)	
								890-4959 Chain of Custody
								Incident ID: NAPP2315133557 Cost Center: 1137901001 AFE: _____

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 SiO₂ 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 Tl U Hg: 1631 / 245 / 17470 / 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
		7-18-23/12:47			

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Chain of Custody Record



1089 N Canal St.
 Carlsbad, NM 88220
 Phone: 575-988-3199 Fax: 575-988-3199

Client Information (Sub Contract Lab)		Sampler	Lab PM Kramer Jessica		Carrier Tracking No(s)	COG No: 890-1375-1
Client Contact:	Phone	Email Jessica.Kramer@eurofins.com		State of Origin New Mexico	Page Page 1 of 1	Job # 890-4959-1
Company	Eurofins Environment Testing South Cent			Accreditations Required (See note) NELAP - Texas		
Address 1211 W Florida Ave		Due Date Requested 7/24/2023		Analysis Requested		Preservation Codes A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA M Hexane N None O AsNaO2 P Na2O4S Q Na2SO3 R Na2SO3 S H2SO4 T TSP Docecalydrate U Acetone V MCAA W pH 4.5 Y Trizma Z other (specify)
City Midland	TAT Requested (days):					
State Zip TX 79701	PO #:					
Phone: 432-704-5440(Tel)	WO #:					
Email:	Project #: 89000093					
Project Name POKER LAKE UNIT 183 Q	SSOW#:					
Site:						

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Over-satell, BT-Tissue, AAR)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers	Special Instructions/Note:
					Preservation Code:	BT-Tissue, AAR	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc		
SW/0 (890-4959-1)	7/18/23	10 00		Solid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SW/1 (890-4959-2)	7/18/23	10 35		Solid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Cent, LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analyte(s)/test(s) being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Cent, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Cent, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Cent, LLC

Possible Hazard Identification

Unconfirmed

Deliverable Requested I II III IV Other (Specify) _____ Primary Deliverable Rank 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by	Date/Time	Date	Time	Received by	Method of Shipment
Relinquished by					
Relinquished by					
Relinquished by					
Custody Seals Intact:	Custody Seal No	Cooler Temperature(s) °C and Other Remarks			
Δ Yes	Δ No				

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4959-1

SDG Number: 03C1558243

Login Number: 4959

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-4959-1

SDG Number: 03C1558243

Login Number: 4959

List Source: Eurofins Midland

List Number: 2

List Creation: 07/19/23 12:08 PM

Creator: Teel, Brianna

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

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APPENDIX E

NMOCD Notifications

From: [Green, Garrett J](#)
To: [Enviro, OCD, EMNRD](#); [Bratcher, Michael, EMNRD](#)
Cc: [Ben Bellil](#); [Tacoma Morrissey](#); [DelawareSpills /SM](#)
Subject: XTO - Sampling Notification (Week of 6/19/23 - 6/23/23)
Date: Friday, June 16, 2023 10:18:06 AM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the sites listed below for the week of June 19, 2023.

Thursday

- PLU 224 / nAPP2310050120
- PLU 183Q / nAPP2315133557

Friday

- PLU 224 / nAPP2310050120
- PLU 183Q / nAPP2315133557

Thank you,

Thank you,

Garrett Green

Environmental Coordinator

Delaware Business Unit

(575) 200-0729

Garrett.Green@ExxonMobil.com

XTO Energy, Inc.

3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729

From: [Collins, Melanie](#)
To: [ocd.enviro \(ocd.enviro@emnrd.nm.gov\)](mailto:ocd.enviro@emnrd.nm.gov); [Bratcher, Michael, EMNRD \(mike.bratcher@emnrd.nm.gov\)](mailto:Bratcher, Michael, EMNRD (mike.bratcher@emnrd.nm.gov)); [Hamlet, Robert, EMNRD \(Robert.Hamlet@emnrd.nm.gov\)](mailto:Hamlet, Robert, EMNRD (Robert.Hamlet@emnrd.nm.gov)); [Harimon, Jocelyn, EMNRD \(Jocelyn.Harimon@emnrd.nm.gov\)](mailto:Harimon, Jocelyn, EMNRD (Jocelyn.Harimon@emnrd.nm.gov))
Cc: [DelawareSpills /SM](#); [Ben Belill](#); [Green, Garrett J](#)
Subject: XTO - Sampling Notification (Week of 6/26/23 - 6/30/23)
Date: Wednesday, June 21, 2023 5:35:44 PM
Attachments: [image001.png](#)

[****EXTERNAL EMAIL****]

All,

XTO plans to complete final sampling activities at the sites listed below for the week of June 26, 2023.

Monday

- PLU 224 / nAPP2310050120
- PLU 183Q / nAPP2315133557

Tuesday

- PLU 183Q / nAPP2315133557
- PLU 224 / nAPP2310050120

Wednesday

- PLU 147 / NRM2004445859

Thursday

- PLU 147 / NRM2004445859

Thank you,

Melanie Collins



Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Friday, July 14, 2023 9:44 AM
To: Collins, Melanie <melanie.collins@exxonmobil.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Subject: RE: [EXTERNAL] Updated XTO - Sampling Notification (Week of 7/17/23 - 7/21/23)

External Email – Think Before You Click

Melanie,

Notification requirements are **two business days**, per rule. You may proceed on your schedule. The OCD has received your notification. When reporting sampling at multiple locations it is required to provide and date and time for each location. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Thursday, July 13, 2023 2:56 PM
To: Enviro, OCD, EMNRD OCD.Enviro@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Cc: spills@slo.state.nm.us; Green, Garrett J <garrett.green@exxonmobil.com>
Subject: [EXTERNAL] Updated XTO - Sampling Notification (Week of 7/17/23 - 7/21/23)

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

All,

XTO plans to complete final sampling activities at the sites listed below for the week of July 17, 2023.

Tuesday 7/18/23

- PLU 183Q / nAPP2315133557
- Remuda 500 Tank Battery / nAPP2317850727 (SLO)

Wednesday 7/19/23

- PLU 224 / nAPP2310050120
- Remuda 500 Tank Battery / nAPP2317850727 (SLO)

Thursday 7/20/23

- PLU 224 / nAPP2310050120
- James Ranch Unit 19 Battery / nAPP2317142256 (SLO)

Friday 7/21/23

- James Ranch Unit 19 Battery / nAPP2317142256 (SLO)

Thank you,

Melanie Collins



Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 251018

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 251018
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	1/17/2024