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 5	OGRID 5380		
Contact Name Garrett Green				Contact Te	Contact Telephone 575-200-0729		
Contact email gar	rrett.gree	en@exxonmobil.co	om	Incident #	# (assigned by OCD)		
			eet, Carlsbad, Nev	w Mexico, 88220			
			Location	of Release So	Source		
32.240	083		2000000		-103 91910		
Latitude			(NAD 83 in dec	Longitude _ imal degrees to 5 decim			
Site Name Pole		*		Site Type	Production Well		
Date Release Disc		Jnit 183Q		API# (if appl			
Date Release Disc	COVERCU	05/15/2023		Al Im (ij uppl	phicaoley		
Unit Letter Se	ection	Township	Range	Coun	inty		
О	06	24S	30E	Eddy	dy		
Surface Owner:		(s) Released (Select al	Nature and	Volume of F	ic justification for the volumes provided below)		
Crude Oil		Volume Release	3,29		Volume Recovered (bbls) 1.90		
➤ Produced Wat	ter	Volume Release	17.02		Volume Recovered (bbls) 8.10		
			ion of total dissolv water >10,000 mg/	` ,	☐ Yes ☐ No		
Condensate		Volume Release	d (bbls)		Volume Recovered (bbls)		
☐ Natural Gas		Volume Release	d (Mcf)		Volume Recovered (Mcf)		
Other (describ	be)	Volume/Weight	Released (provide	units)	Volume/Weight Recovered (provide units)		
Cause of Release	External contract	l corrosion caused or has been retain	a flowline to releated for remediation	ase fluids to the soi purposes.	oil. Vac truck recovered free fluids. A third-party		

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Was this a major	If YES, for what reason(s) does the respor	sible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	N/A	
, ,		
Yes 🗷 No		
If VFS, was immediate n	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
N/A	once given to the OCD. By whom: To wh	on: When and by what means (phone, email, etc):
	Initial Re	esponse
The responsible		vunless they could create a safety hazard that would result in injury
The source of the rele	ease has been stopped.	
The impacted area ha	s been secured to protect human health and	the environment.
Released materials ha	ave been contained via the use of berms or d	ikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and	I managed appropriately.
	d above have <u>not</u> been undertaken, explain v	vhy:
NA		
Per 19.15.29.8 B. (4) NM	IAC the responsible party may commence re	emediation immediately after discovery of a release. If remediation
		efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.
		pest of my knowledge and understand that pursuant to OCD rules and
		ications and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have
		at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
and/or regulations.	Ta C 141 report does not remove the operator of	esponsionity for compnance with any other rederal, state, or local laws
Printed Name: Garrett G	reen	Title: SSHE Coordinator
Si-matum.	A Jun	Date: 5/25/2023
Signature:	vonmohil com	
email: garrett.green@exx		Telephone: 575-200-0729
OCD Only		
Received by:		Date:

Location:	PLU 183Q		
Spill Date:	5/15/2023		
	Area 1		
Approximate A	rea =	721.00	sq. ft.
Average Satura	tion (or depth) of spill =	1.00	inches
Average Porosi	ty Factor =	0.03	
	VOLUME OF LEAK		
Total Crude Oil	=	1.96	bbls
Total Produced Water = 8.36 bbls		bbls	
	Area 2		
Approximate A	rea =	1176.00	sq. ft.
Average Satura	tion (or depth) of spill =	4.00	inches
Average Porosi	ty 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				
otal 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

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

#### CONDITIONS

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

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Incident ID	NAPP2315133557	
District RP		
Facility ID		
Application ID		

### Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>&gt;100</u> (ft bgs)			
Did this release impact groundwater or surface water?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No			
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No			
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No			
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No			
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No			
Are the lateral extents of the release overlying a subsurface mine?				
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No			
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No			
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes ⊠ No			
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.				
Characterization Report Checklist: Each of the following items must be included in the report.				
<ul> <li>         \infty Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well Field data     </li> </ul>	ls.			
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				
<ul> <li>✓ Photographs including date and GIS information</li> <li>✓ Topographic/Aerial maps</li> </ul>				

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.

☐ Laboratory data including chain of custody

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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	g items must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29	0.11 NMAC
Photographs of the remediated site prior to backfill or photomust be notified 2 days prior to liner inspection)	os of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OI	OC District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regulatestore, reclaim, and re-vegetate the impacted surface area to the conceptance with 19.15.29.13 NMAC including notification to the Printed Name: _Garrett Green	conditions. The responsible party acknowledges they must substantially conditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.  Title: _Environmental Coordinator  Date:8/11/2023
email:garrett.green@exxonmobil.com	Telephone:575-200-0729
OCD Only	
Received by: Shelly Wells	Date: 8/11/2023
	ty of liability should their operations have failed to adequately investigate and e water, human health, or the environment nor does not relieve the responsible d/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.

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 3122 National Park Highway | Carlsbad, NM 88220 | ensolum.com

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

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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.

**E** ENSOLUM

Page 3

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

cc: Garrett Green, XTO Shelby Pennington, XTO

BLM

Ashley L. Ager, MS, PG

Principal

Ashley L. Ager

### 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

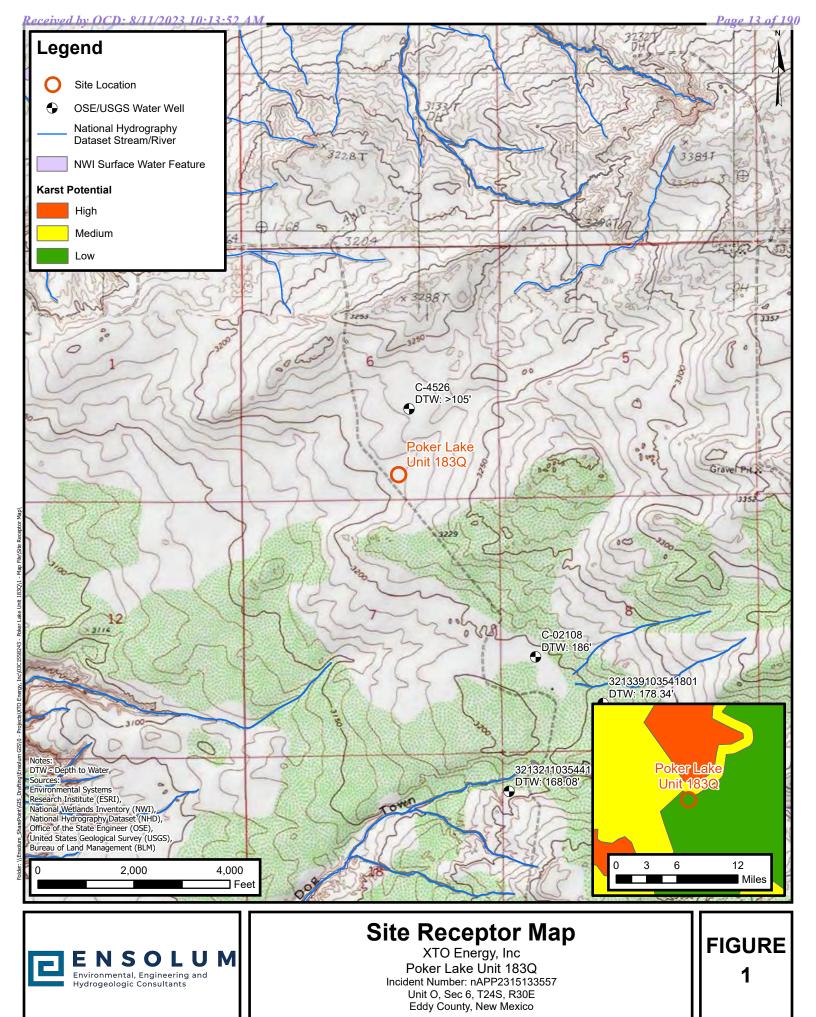
Appendix C Lithology Soil Sampling Logs

Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation

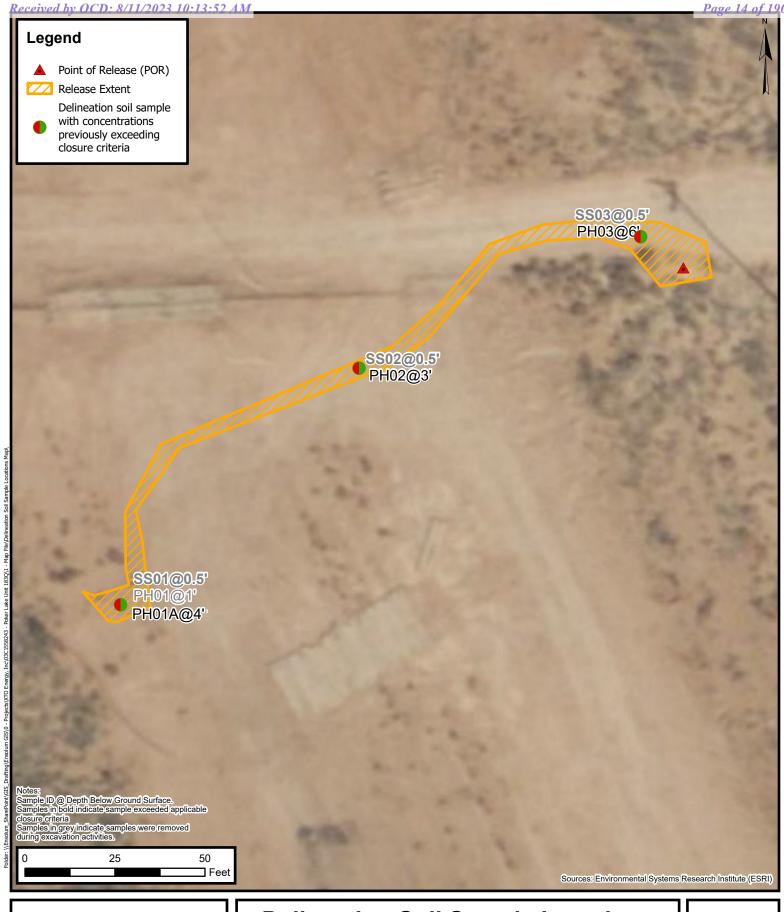
Appendix E NMOCD Notifications/Correspondence



**FIGURES** 



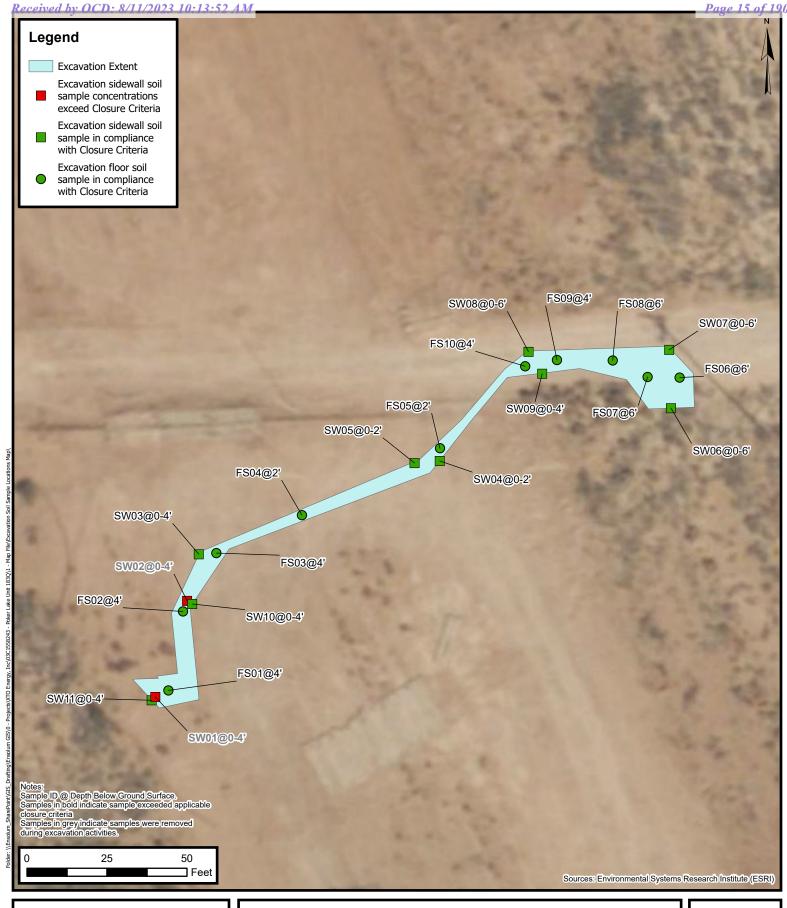
Released to Imaging: 1/17/2024 1:08:35 PM





# **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





# **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** 

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### 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)
NMOCD Table I C	losure Criteria (	NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
				Delir	neation Soil Sai	nples				
SS01	06/06/2023	0.5	<0.00202	0.263	<250	3,980	<250	3,980	3,980	3,110
PH01	06/23/2023	4	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	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	<del>&lt;49.9</del>	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	<0.101	<50.0	533	<del>&lt;50.0</del>	533	533	18,600
PH03	06/27/2023	6	< 0.00198	< 0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	14,800
				Confi	rmation Soil Sa	imples				
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	<del>&lt;49.8</del>	<49.8	<del>&lt;49.8</del>	<del>&lt;49.8</del>	<del>&lt;49.8</del>	1,480
SW02	06/26/2023	0-4	<0.00199	<0.00398	<49.8	<49.8	<del>&lt;49.8</del>	<49.8	<49.8	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 NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

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

NMAC: New Mexico Administrative Code Grey text indicates soil sample removed during excavation activities

GRO: Gasoline Range Organics DRO: Diesel Range Organics ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Ensolum



**APPENDIX A** 

Referenced Well Records



NO	OSE POD NO. POD1 (MV		.)	1	WELL TAG ID NO. n/a			OSE FILE NO(	S).				
OCATI	WELL OWNER							PHONE (OPTIONAL)					
GENERAL AND WELL LOCATION	WELL OWNER 6401 Holida							CITY STATE ZIP Midland TX 79707					
P S	WELL		DE	GREES	MINUTES	SECON							
AL.	LOCATION	147	TITUDE	32° 14' 42.15" N *ACCURACY REQUIRED: ONE TENTH OF A SECOND  103° 55' 6 20" W *DATUM REQUIRED: WGS 84									
NER	(FROM GPS	LO	NGITUDE	103°	55'	6.20		L	- 		· · · · · · · · · · · · · · · · · · ·		
1. GE	DESCRIPTION NW NE Sec		NG WELL LOCATION TO S R30E	STREET ADDRE	SS AND COMMON	N LANDMA	arks – pls	S (SECTION, TO	wnshjip, range) wh	ERE AVA	AILABLE		
	LICENSE NO.		NAME OF LICENSED	DRILLER		* * /			NAME OF WELL DRI	LLING C	COMPANY		
	1249	9		Ja	ckie D. Atkins	ı			Atkins Eng	ineering	g Associates, I	nc.	
	DRILLING ST. 05/14/2		DRILLING ENDED 05/14/2021		PLETED WELL (FI Try well materia			LE DEPTH (FT) 105	DEPTH WATER FIRS	T ENCO n/a	٠,		
z	COMPLETED	WELL IS:	ARTESIAN	DRY HOLE	SHALLO	W (UNCO	NFINED)		STATIC WATER LEV	EL IN Co		LL (FT)	
TIO	DRILLING FL	U <b>ID</b> :	✓ AIR	MUD	ADDITIV	ES – SPEC	ZIFY:		L				
CASING INFORMATION	DRILLING ME	ETHOD:	ROTARY	HAMMER	CABLE T	COOL	<b>✓</b> OTHE	R – SPECIFY:	Hollo	w Sten	n Auger		
N. O.	DEPTH (	feet bgl)	BORE HOLE	CASING N	ATERIAL AND	O/OR		ASING	CASING	CAS	ING WALL	SLOT	
l S	FROM	то	DIAM	(include e	GRADE ach casing string,	and	CON	NECTION	INSIDE DIAM.	TH	ICKNESS	SIZE	
CASI			(inches)	note se	note sections of screen) (add coupli			TYPE ling diameter)	(inches)	<u></u>	(inches)	(inches)	
8	0	105	±6.5	F	Soring- HSA							-	
DRILLING &													
) KIL													
2.1													
										<u> </u>			
	DEPTH (	feet bgl)	BORE HOLE	LIS	T ANNULAR SI	EAL MA	TERIAL A	AND	AMOUNT		метно	D OF	
Ĭ¥.	FROM	то	DIAM. (inches)	GRAV	EL PACK SIZE	-RANGE	BY INTE	RVAL	(cubic feet)		PLACEN	MENT	
ANNULAR MATERIAL													
MA				<u> </u>									
LAR													
Z	<del></del>							<u> </u>					
3. A													
	OSE INTERN								0 WELL RECORD	<u>&amp; LOG</u>	(Version 06/3	0/17)	
	E NO.	<u>' - 4</u>	<u>524</u>	10 30	POD NO			TRN	(2   C	210	9	1.07.1	
LOC	CATION 🗁	ומיג	$\sim$	45. 50	F.6.41	Ч		WELL TAG II	D NO.	100	PAGE	ન;OF 2	

	DEPTH (1	feet bgl)									ESTIMATED
			THICKNESS		ND TYPE OF MATERIA			ا ،	WAT BEARI		YIELD FOR
	FROM	то	(feet)		ER-BEARING CAVITII  pplemental sheets to ful			ه	(YES /		WATER- BEARING
											ZONES (gpm)
	0	4	4		y graded, fine-very grain	<u> </u>			Y	√N	
	4	12	8		, poorly-mod. consolidate				Y	√N	
	12	19	7		ded, fine-very grained, s		<del></del>	<del>*</del>	Y	√N	
	19	24	5	SAND, poorly graded,	fine-very grained, some	caliche ;	gravel, Light- Bro	vn, dry	Y	√N	
	24	72	48	SAND, poorly	graded, fine-very grains	d, Reddi	sh Brown, moist		Y	√N	
;	72	92	20	SAND, poorly grad	ed, fine-very grained, so	me silt, F	Reddish Brown, m	oist	Y	√N	
WE	92	102	10	SILTY SAND, po	orly graded, fine-very gr	ained, Re	eddish Brown, mo	ist	Y	✓N	
HYDROGEOLOGIC LOG OF WELL	102	105	3	SILTY SAND, p	oorly graded, fine-very g	rained, F	Reddish Brown, dr	y	Y	√N	
90									Y	N	
D									Y	N	
100									Y	N	
EO									Y	N	
ROC									Y	N	
I S									Y	N	
4.1									Y	N	
									Y	N	
									Y	N	
										N	
								$\dashv$	Y		
							<del></del>			N	
								$\longrightarrow$	Y	N	
	N/ESTION II	222 20 20							<u>Y</u>	N	
				OF WATER-BEARIN	G STRATA:				L ESTIM. L YIELD		0.00
	PUMF	P AI	R LIFT	BAILER O	THER – SPECIFY:			WEL	LILLD	(gpm).	0.00
N.	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.										
VISION	MISCELLA	VIEOTIS INTE	OPMATION:								
	MISCELLAI	NEOUS INF	Te	mporary well materi	als removed and the seace, then hydrated ben	oil borin	g backfilled using	ng drill	cuttings	from tot	al depth to ten
SUP				gs adapted from WS		white c	mps from ten fet	or octo	v grounu	surrace	to surface.
TEST; RIG SUPER											
ST;											
5. TE					VIDED ONSITE SUPE	RVISIO	OF WELL CON	STRUC	TION OT	HER TH	AN LICENSEE:
<b>'</b> '	Shane Eldrid	lge, Carme	lo Trevino, Can	neron Pruitt							
	THE UNDER	RSIGNED H	EREBY CERTIF	IES THAT, TO THE E	EST OF HIS OR HER	CNOWI.	EDGE AND BEL	IEF TE	IE FOREC	OING I	S A TRUE AND
RE	CORRECT R	ECORD OF	THE ABOVE D	ESCRIBED HOLE AN	ID THAT HE OR SHE PLETION OF WELL D	VILL FI	LE THIS WELL I	ECOR	D WITH T	HE STA	TE ENGINEER
ATU	AND THE P	EKMII HOI	DEK WITHIN 3	UDAYS AFIER COM	PLETION OF WELL D	KILLING	j:				
SIGNATURE	Jack Ar	Kins		Ja	ckie D. Atkins				06/09/	2021	
6. S									-		
		SIGNATU	JRE OF DRILLE	R / PRINT SIGNEE	NAME				I	DATE	
FOR	OSE INTERN	NAL USE					WR-20 WE	LL REC	ORD & L	OG (Ver	sion 06/30/2017)
FILI	E NO.	C-	4526		POD NO.	1	TRN NO.	U	1216	79	
LOC	CATION		•			WE	ELL TAG ID NO.				PAGE 2 OF 2



**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





Photograph 5 Date: 6/29/2023

Description: Excavation activities, near release point.

View: West

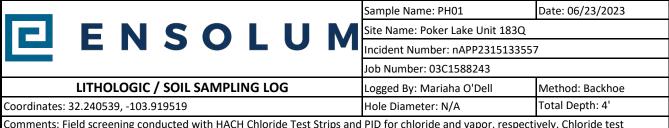
Photograph 6 Date: 7/18/2023
Description: Excavation activities, near SS01/PH01.
View: Northeast

Page 2 of 2



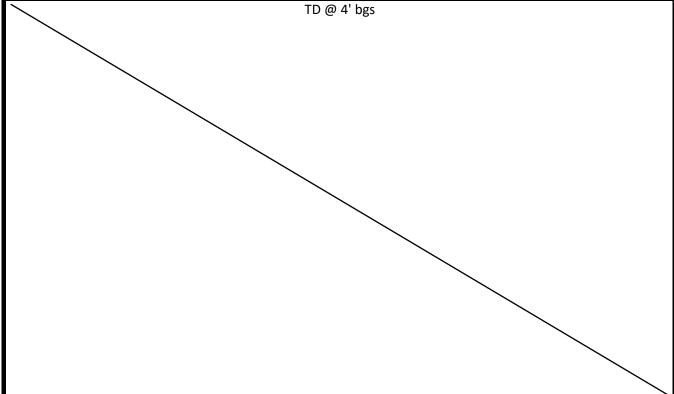
APPENDIX C

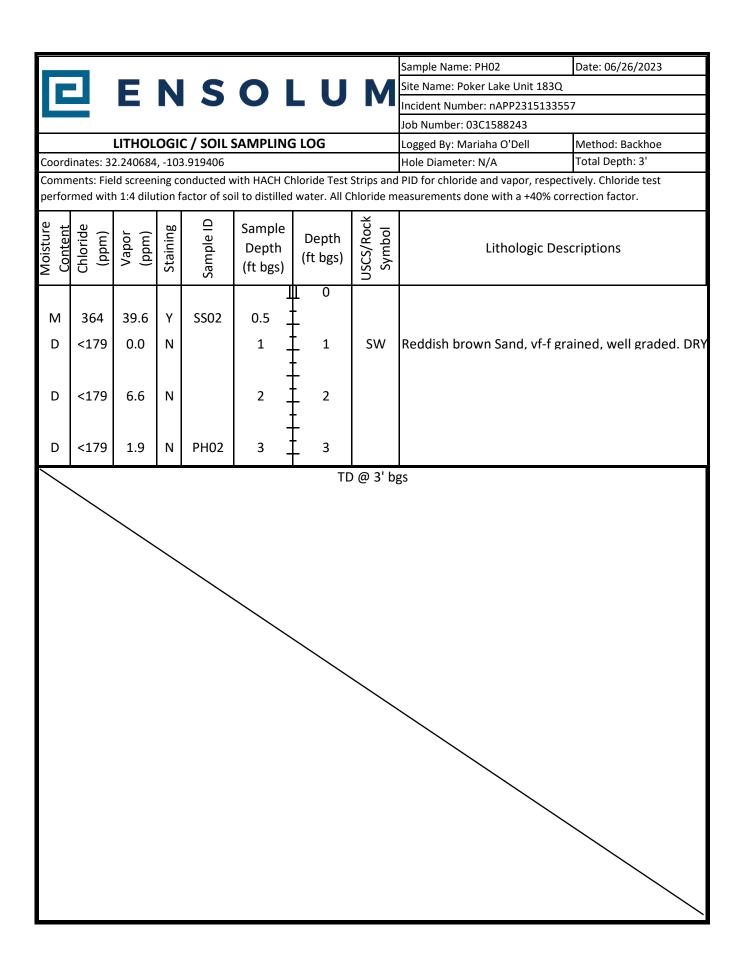
Lithologic Soil Sampling Logs

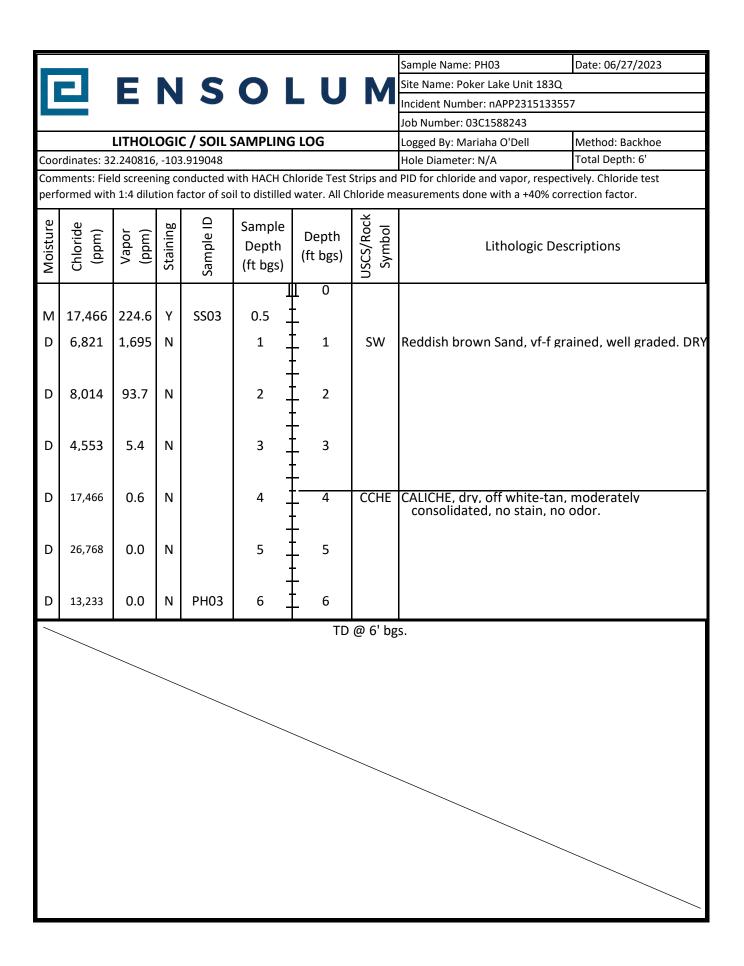


Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All Chloride measurements done with a +40% correction factor.

Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						<u> </u>		
М	2,402	527.8	Υ	SS01	0.5	<b>-</b> -		
D	5,365	56.1	Ν	PH01	1 _	_ 1	SW	Reddish brown Sand, vf-f grained, well graded
					<u>-</u>	<u>-</u>		
D	3,293	29.7	N		2	_ 2		
					-	<u>-</u>		
D	<179	36.6	N		3 _	_ 3		
					_	<u></u>		
D	<179	0.0	N	PH01A	4	4	SW	Reddish brown Sand, vf-f grained, well graded Trace CCHE









APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

**Environment Testing** 

# **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 <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

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Client: Ensolum
Project/Site: Poker Lake Unit 183Q
Laboratory Job ID: 890-4787-1
SDG: 03C1588243

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Method Summary	19
Sample Summary	20
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### **Definitions/Glossary**

Job ID: 890-4787-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q 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. 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 Contains No Free Liquid **CNF** DER

Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

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) Limit of Quantitation (DoD/DOE) LOQ

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL ML Minimum Level (Dioxin) MPN Most Probable Number MOI Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present **Practical Quantitation Limit PQL** 

**PRES** Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER** 

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ** 

**TNTC** Too Numerous To Count

**Eurofins Carlsbad** 

### **Case Narrative**

Client: Ensolum

Job ID: 890-4787-1 Project/Site: Poker Lake Unit 183Q 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.

Job ID: 890-4787-1

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

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 - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.263		0.00403	mg/Kg			06/10/23 18:16	1
Metriou: 344040 0013 MM - Diese	el Range Organ	ics (DRO) (	GC)					
		ics (DRO) ( Qualifier	GC)	Unit	D	Prepared	Analyzed	Dil Fac
Analyte			•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 06/13/23 12:05	
Analyte Total TPH	Result 3980	Qualifier	RL 250		<u>D</u>	Prepared		
Analyte Total TPH  Method: SW846 8015B NM - Die	Result 3980 sel Range Orga	Qualifier	RL 250		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result 3980 sel Range Orga	Qualifier  nics (DRO) Qualifier	RL 250	mg/Kg			06/13/23 12:05	1 Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 3980 sel Range Orga Result	Qualifier  nics (DRO) Qualifier	RL 250 (GC)	mg/Kg		Prepared	06/13/23 12:05  Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 3980 sel Range Orga Result <250	Qualifier  nics (DRO)  Qualifier  U	RL 250  (GC) RL 250	mg/Kg  Unit  mg/Kg		Prepared 06/09/23 14:01	06/13/23 12:05  Analyzed 06/13/23 07:19	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 3980 sel Range Orga Result <250 3980	Qualifier  nics (DRO)  Qualifier  U	RL 250  (GC) RL 250  250	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/09/23 14:01 06/09/23 14:01	06/13/23 12:05  Analyzed 06/13/23 07:19 06/13/23 07:19	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   3980	Qualifier  nics (DRO)  Qualifier  U	RL 250  (GC)  RL 250  250  250	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/09/23 14:01 06/09/23 14:01	06/13/23 12:05  Analyzed 06/13/23 07:19 06/13/23 07:19 06/13/23 07:19	Dil Face 5 5 Dil Face
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   3980	Qualifier  nics (DRO)  Qualifier  U	RL 250  (GC)  RL 250  250  250  Limits	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/09/23 14:01 06/09/23 14:01 06/09/23 14:01 Prepared	Analyzed 06/13/23 12:05  Analyzed 06/13/23 07:19 06/13/23 07:19  Analyzed	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   3980	Qualifier  nics (DRO) Qualifier  U	RL 250  (GC)  RL 250  250  250  250  Limits  70 - 130  70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/09/23 14:01 06/09/23 14:01 06/09/23 14:01  Prepared 06/09/23 14:01	06/13/23 12:05  Analyzed 06/13/23 07:19 06/13/23 07:19  Analyzed 06/13/23 07:19	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result   3980	Qualifier  nics (DRO) Qualifier  U	RL 250  (GC)  RL 250  250  250  250  Limits  70 - 130  70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/09/23 14:01 06/09/23 14:01 06/09/23 14:01  Prepared 06/09/23 14:01	06/13/23 12:05  Analyzed 06/13/23 07:19 06/13/23 07:19  Analyzed 06/13/23 07:19	Dil Fac  Dil Fac  5  Dil Fac  5  Dil Fac

**Client Sample ID: SS02** Lab Sample ID: 890-4787-2

Date Collected: 06/06/23 09:55 Date Received: 06/06/23 15:42

Sample Depth: 0.5'

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	

**Eurofins Carlsbad** 

Matrix: Solid

Job ID: 890-4787-1

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

Mothod: TAL SO	P Total RTFY - Tot	al 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

ı				
ı	Mathad. CIMO 4C OO4E NIM	Discal Dance	Oursias /F	ADOL (CC)
1	Method: SW846 8015 NM -	Diesei Kande	Organics (L	JKULIGGE

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)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

			• •					
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
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/09/23 14:01	06/13/23 07:42	1
Currogata	9/ Bassyany	Qualifier	Limita			Droporod	Analyzad	Dil Ess

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		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 Date Received: 06/06/23 15:42

Sample Depth: 0.5'

Method: SW846	ROSTR Vols	tilo Organic	Compounde /	CCI
I WELLIOU. SYVON	1 002 ID - VUIA	lile Oruanic	CUIIIDUUIIUS I	901

Welliou. Syvo46 6021B - Volat	ne Organic Comp	ounus (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)			70 130			06/08/23 12:22	06/10/23 14:42	

Surrogate	%Recovery	Qualifier	Limits	Prepare	d Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	06/08/23 1	2:22 06/10/23 14:42	! 1
1.4-Difluorobenzene (Surr)	99		70 - 130	06/08/23 1	2:22 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	Method:	: SW846 8015 N	M - Diesel R	ange Ord	ianics (	DRO)	(GC
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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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Matrix: Solid

### **Client Sample Results**

Client: Ensolum Job ID: 890-4787-1 Project/Site: Poker Lake Unit 183Q 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 - Dies	el Range Orga	nics (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	Chromatograp	hy - Solubl	e					
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 Job ID: 890-4787-1
Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(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)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(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

Job ID: 890-4787-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

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

Lab Sample ID: MB 880-54980/5-A

**Matrix: Solid** 

Analysis Batch: 55086

ık

Prep Type: Total/NA

				Prep Batch	: 54980
RL	Unit	D	Prepared	Analyzed	Dil Fac
0.00200	ma/Ka	_	06/07/23 13:56	06/09/23 21:41	1

06/08/23 12:22

06/10/23 08:16

Prep Batch: 55034

Analyte Result Qualifier Benzene <0.00200 U Toluene <0.00200 U 0.00200 mg/Kg 06/07/23 13:56 06/09/23 21:41 Ethylbenzene <0.00200 U 0.00200 06/07/23 13:56 mg/Kg 06/09/23 21:41 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 06/07/23 13:56 06/09/23 21:41 o-Xylene <0.00200 U 0.00200 06/07/23 13:56 06/09/23 21:41 mg/Kg Xylenes, Total <0.00400 U 0.00400 06/07/23 13:56 06/09/23 21:41 mg/Kg

MB MB

MB MB

Surrogate	%Recovery	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 Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 55034 Analysis Batch: 55086

MR MR

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

0.00400

mg/Kg

MB MB

<0.00400 U

Surrogate	%Recovery	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 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Solid** 

Xylenes, Total

**Analysis Batch: 55086** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery 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							Prep	Batch:	55034
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1283		mg/Kg		128	70 - 130	2	35

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Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

# QC Sample Results

Job ID: 890-4787-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q 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

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
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 Client Sample ID: Matrix Spike

**Matrix: Solid** 

Analysis Batch: 55086

Prep Type: Total/NA

Prep Batch: 55034

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Benzene <0.00198 U F1 0.101 0.1356 F1 mg/Kg 134 70 - 130 Toluene <0.00198 U 0.101 0.1031 102 70 - 130 mg/Kg Ethylbenzene <0.00198 U 0.101 0.08981 70 - 130 mg/Kg 89 m-Xylene & p-Xylene <0.00396 U 0.202 0.1747 86 70 - 130 mg/Kg 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

		Sample	Sample	Spike	MSD	MSD				%Rec		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	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
ı												

MSD MSD

Surrogate	76Recovery	Qualifier	LIIIIII
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

мв мв Result Qualifier RL Unit Prepared Gasoline Range Organics <50.0 U 50.0 mg/Kg 06/09/23 14:01 06/12/23 23:24

(GRO)-C6-C10

Client: Ensolum Job ID: 890-4787-1 SDG: 03C1588243 Project/Site: Poker Lake Unit 183Q

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

Lab Sample ID: MB 880-55158/1-A **Matrix: Solid** 

Lab Sample ID: LCS 880-55158/2-A

**Matrix: Solid** 

Analysis Batch: 55236

Analysis Batch: 55236

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

Prep Batch: 55158

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

MB MB

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
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

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 55158

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 905.0 90 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 982.0 mg/Kg 98 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
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
Down Butche FE4F0

Prep Batch: 55158

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

LCSD LCSD Surrogate %Recovery Qualifier Limits 24 S1-

1-Chlorooctane 70 - 130 o-Terphenyl 19 S1-70 - 130

Lab Sample ID: 880-29311-A-121-C MS

Analysis Batch: 55236

**Matrix: Solid** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 55158

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

C10-C28)

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

Job ID: 890-4787-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

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

Client Sample ID: Matrix Spike Duplicate

Lab Sample ID: 880-29311-A-121-D MSD **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 55236 Prep Batch: 55158

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

C10-C28)

MSD MSD Limits Surrogate %Recovery Qualifier 1-Chlorooctane 70 - 130 101 o-Terphenyl 95 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-55022/1-A Client Sample ID: Method Blank

**Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 55120** 

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

Lab Sample ID: LCS 880-55022/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 55120** 

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

Lab Sample ID: LCSD 880-55022/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 55120

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	250.6		mg/Kg	_	100	90 - 110	1	20	

Lab Sample ID: 890-4784-A-1-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 55120

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	254		1250	1506		ma/Ka		100	90 110	

Lab Sample ID: 890-4784-A-1-D MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble** 

**Matrix: Solid** Analysis Batch: 55120

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Qualifier Analyte Result %Rec Limits RPD Limit Unit D 1250 Chloride 254 1511 100 90 - 110 mg/Kg

# QC Sample Results

Client: Ensolum Job ID: 890-4787-1 Project/Site: Poker Lake Unit 183Q

SDG: 03C1588243

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4786-A-2-C MS Client Sample ID: Matrix Spike

**Matrix: Solid Prep Type: Soluble** Analysis Batch: 55120

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Analyte Unit %Rec Limits Chloride 284 249 538.7 mg/Kg 102 90 - 110

Lab Sample ID: 890-4786-A-2-D MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 55120

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit D %Rec Chloride 284 249 535.5 mg/Kg 101 90 - 110 20

# **QC Association Summary**

Client: Ensolum Job ID: 890-4787-1
Project/Site: Poker Lake Unit 183Q 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	<u> </u>
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 Job ID: 890-4787-1
Project/Site: Poker Lake Unit 183Q 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

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## **Lab Chronicle**

Client: Ensolum Job ID: 890-4787-1 Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

**Client Sample ID: SS01** 

Date Collected: 06/06/23 09:50 Date Received: 06/06/23 15:42 Lab Sample ID: 890-4787-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Date Received: 06/06/23 15:42

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Date Received: 06/06/23 15:42 **Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Job ID: 890-4787-1 Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

## **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-25	06-30-23
The following analytes	are included in this report, but	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes fo
the agency does not of	• •	ic and laboratory to flot corum	bu by the governing authority. This list his	ay include analytes to
,	• •	Matrix	Analyte	ay molude analytes to
the agency does not of	fer certification.	,	, , ,	

# **Method Summary**

Client: Ensolum Job ID: 890-4787-1
Project/Site: Poker Lake Unit 183Q 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

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# **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	
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'

Relinquished by: (Signature)

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Received by: (Signature,

Date/Time ECC/

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eurofins **Environment Testing** Xenco

Phone:

Project Manager:

Sampler's Name: Project Location: Project Number: Project Name:

# Chain of Custody

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

roject Manager:	Tacoma Morrissey	sey			Bill to: (if different)	fferent)	Ga	Garret Green	een		Work Order	Work Order Comments
	Ensolum				Company Name:	Name:	XT	XTO Energy	гду		Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐	rownfields   RRC   Superfund
	3122 National Parks Hwy	arks Hv	vy		Address:		310	04 E. G	3104 E. Green St		State of Project:	
le ZIP:	Carlsbad, NM 88220	8220			City, State ZIP	ZIP:	Са	rlsbad,	Carlsbad, NM 88220		Reporting: Level II	PST/UST   TRRP   Level IV
	303-887-2946			Email:	Email: Garret Green@ExxonMobil.com	een@E	Mnoxx	obil.co	om		Deliverables: EDD A	ADaPT Other:
Project Name:	Poker I ake I Init 1830	o Unit 1	830	Turn	Turn Around	_				ANALYSIS	REQUEST	Preservative Codes
roject Number:	03C1	03C1588243		☑ Routine	☐ Rush	2 3	Pres.					None: NO DI Water: H <sub>2</sub> O
roject Location:	32.24083, -103.9191	-103.9		Due Date:	5 days							Cool: Cool MeOH: Me
Sampler's Name:	Mariah	Mariaha O'Dell		TAT starts the	e day receive	ed by						
ŏ #			)	the lab, if received by 4:30pm	eived by 4:3		rs					H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na
SAMPLE RECEIPT	Temp Blank:	ank:	(Yes No	Wet ice:	S S	S S	nete	,	_			H <sub>3</sub> PO <sub>4</sub> : HP
samples Received Intact:	(es)	No	Thermometer ID:	ır ID:	I MM	8		. 500				NaHSC4: NABIS
Cooler Custody Seals:	Yes No	MA	Correction Factor:	actor:	-0	وأ	_	.,				Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>
Sample Custody Seals:	s: Yes No	NA	Temperature Reading:	Reading:	R	Ý	S /E			Chain of Custody	of Custody	Zn Acetate+NaOH: Zn
otal Containers:		L	Corrected   emperature:	emperature:	i	t			-	080		
Sample Identification	tification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ #	Cont of	TPH (8	BTEX			Sample Comments
SS01	1	S	6/6/2023	9:50	0.5'	G	1	×	×			Incident ID:
\$802	2	S	6/6/2023	9:55	0.5'	G	>	×	×			nAPP2315133557
\$803	ω	S	6/6/2023	10:00	0.5	ଦ	_	×	×			Cost Center:
												1137901001
							-				25	
							1	1				Tacoma Morrissey:
						_						tmorrissey@ensolum.com
		1										
									-			
Total 200.7 / 6010	10 200.8 / 6020:	)20:	8	8RCRA 13F	13PPM Tex	Texas 11	Al Sb	Sb As Ba	a Be B	Cd Ca Cr Co Cu Fe	Pb Mg Mn Mo Ni K Se Ag SiO2	)2 Na Sr TI Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	d Metal(s) to be	analyz	ed	TCLP / S	TCLP / SPLP 6010: 8RCRA	): 8RCF	RA St	As	Ba Be	Sb As Ba Be Cd Cr Co Cu Pb Mn I	Mo Ni Se Ag TI U Hg: 16	Hg: 1631 / 245.1 / 7470 / 7471
otice: Signature of this de service. Eurofins Xenco	ocument and relinqu	ishment o	f samples cons t of samples an	stitutes a valid    d shall not ass	purchase ord ume any resp	er from cli	ent com for any I	pany to	Eurofins	to, its affiliates and subcontractions to the client if such los	otice: 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 fervice. 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 and the control of the co	is rol
Relinquished by: (Signature)	(Signature)		Receive	Received by: (Signature)	ature)		0	Date/Time	ne	Relinquished by: (Signature)	Relinquished by: (Signature) Received by: (Signature) Date/Time Relinquished by: (Signature) Received by: (Signature)	nature) Date/Time
	(Signature)		Zaca ya		מנטום)	_	כ	200/11	ē	Transporter by Constitution		

Revised Date: 08/25/2020 Rev. 2020.2

# **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-4787-1 SDG Number: 03C1588243

Login Number: 4787 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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	

Released to Imaging: 1/17/2024 1:08:35 PM

# **Login Sample Receipt Checklist**

Client: Ensolum

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

Login Number: 4787 **List Source: Eurofins Midland** List Number: 2

List Creation: 06/08/23 10:12 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	N/A	

**Eurofins Carlsbad** 

Released to Imaging: 1/17/2024 1:08:35 PM

<6mm (1/4").

**Environment Testing** 

# **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 <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440 Client: Ensolum
Project/Site: Poker Lake Unit 183Q
Laboratory Job ID: 890-4858-1
SDG: 03C1588243

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# **Definitions/Glossary**

Job ID: 890-4858-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q 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** 

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

Percent Recovery %R 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" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML 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)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: Ensolum

Job ID: 890-4858-1 Project/Site: Poker Lake Unit 183Q 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.

Job ID: 890-4858-1

Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

**Client Sample ID: PH01** Date Collected: 06/23/23 09:30

Lab Sample ID: 890-4858-1 Matrix: Solid

Date Received: 06/23/23 16:35

Sample Depth: 1

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	
Toluene	<0.00201	U	0.00201	mg/Kg		06/29/23 08:40	06/29/23 19:46	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/29/23 08:40	06/29/23 19:46	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/29/23 08:40	06/29/23 19:46	
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/29/23 08:40	06/29/23 19:46	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/29/23 08:40	06/29/23 19:46	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	80		70 - 130			06/29/23 08:40	06/29/23 19:46	
1,4-Difluorobenzene (Surr)	84		70 - 130			06/29/23 08:40	06/29/23 19:46	
· Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00402	U	0.00402	mg/Kg			06/30/23 15:46	
Method: SW846 8015 NM - Diese Analyte	Result	Qualifier	GC)RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.8	U	49.8	mg/Kg			06/29/23 09:09	
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
			(00)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics			• •	Unit mg/Kg	<u>D</u>	Prepared 06/28/23 13:20	Analyzed 06/29/23 05:25	
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over		U	RL		<u>D</u>			
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.8	U	RL 49.8	mg/Kg	<u> </u>	06/28/23 13:20	06/29/23 05:25	
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)	<49.8 <49.8	U U	49.8 49.8	mg/Kg	<u>D</u>	06/28/23 13:20 06/28/23 13:20	06/29/23 05:25 06/29/23 05:25	
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)	<49.8 <49.8 <49.8	U U	49.8 49.8 49.8	mg/Kg	<u>D</u>	06/28/23 13:20 06/28/23 13:20 06/28/23 13:20	06/29/23 05:25 06/29/23 05:25 06/29/23 05:25	Dil Fa
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	<49.8 <49.8 <49.8 <49.8 <b>%Recovery</b> 182	U U U <b>Qualifier</b>	### ### ##############################	mg/Kg	<u>D</u>	06/28/23 13:20 06/28/23 13:20 06/28/23 13:20 Prepared	06/29/23 05:25 06/29/23 05:25 06/29/23 05:25 Analyzed	Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl  Method: EPA 300.0 - Anions, Ion	<49.8 <49.8 <49.8 <49.8  **Recovery 182 167	U U Qualifier S1+ S1+	RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	06/28/23 13:20 06/28/23 13:20 06/28/23 13:20 Prepared 06/28/23 13:20	06/29/23 05:25 06/29/23 05:25 06/29/23 05:25 Analyzed 06/29/23 05:25	Dil Fa
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	<49.8 <49.8 <49.8  %Recovery 182 167  Chromatograp	U U Qualifier S1+ S1+	RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	06/28/23 13:20 06/28/23 13:20 06/28/23 13:20 Prepared 06/28/23 13:20	06/29/23 05:25 06/29/23 05:25 06/29/23 05:25 Analyzed 06/29/23 05:25	Dil Fac

Client Sample ID: PH01A Lab Sample ID: 890-4858-2

Date Collected: 06/23/23 09:45 Date Received: 06/23/23 16:35

Sample Depth: 4

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

**Eurofins Carlsbad** 

**Matrix: Solid** 

# **Client Sample Results**

Client: Ensolum Job ID: 890-4858-1 Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

Client Sample ID: PH01A

Result Qualifier

272

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

Analyte

Chloride

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 - 1	Total BTEX Cald	culation						
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 - Diese	el Range Organ	ics (DRO) (	GC)					
Analyte	•	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 - Dies	sal Ranga Orga	nics (DPO)	(GC)					
	• •	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	itosuit							Diriac
Gasoline Range Organics		U	49.9	mg/Kg		06/28/23 13:20	06/29/23 05:47	1
		U		mg/Kg		06/28/23 13:20	06/29/23 05:47	1
Gasoline Range Organics				mg/Kg		06/28/23 13:20 06/28/23 13:20	06/29/23 05:47 06/29/23 05:47	1
Gasoline Range Organics (GRO)-C6-C10	<49.9		49.9					1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<49.9	U	49.9					1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.9 <49.9	U U	49.9	mg/Kg		06/28/23 13:20	06/29/23 05:47	1 1 Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9 <49.9 <49.9	U U	49.9 49.9 49.9	mg/Kg		06/28/23 13:20 06/28/23 13:20	06/29/23 05:47 06/29/23 05:47	1 1

4.95

Unit

mg/Kg

Prepared

Analyzed

06/27/23 22:57

Dil Fac

# **Surrogate Summary**

Client: Ensolum

Project/Site: Poker Lake Unit 183Q

SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		BFB1	DFBZ1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
)-30147-A-1-C MS	Matrix Spike	103	110	
)-30147-A-1-D MSD	Matrix Spike Duplicate	104	115	
0-4858-1	PH01	80	84	
-4858-2	PH01A	79	87	
8 880-56542/1-A	Lab Control Sample	101	108	
SD 880-56542/2-A	Lab Control Sample Dup	107	113	
880-56542/5-A	Method Blank	68 S1-	99	

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

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

Matrix: Solid Prep Type: Total/NA

_			
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(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 Job ID: 890-4858-1 Project/Site: Poker Lake Unit 183Q 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

MB	MB	

Analyte	Result	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

MB MB

Surrogate	%Recovery	Qualifier	Limits	Pr	epared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68	S1-	70 - 130	06/29	9/23 08:40	06/29/23 12:06	1
1,4-Difluorobenzene (Surr)	99		70 - 130	06/29	9/23 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

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

LCS LCS

Surrogate	%Recovery	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

	Spike	LCSD LC	SD			%Rec		RPD
Analyte	Added	Result Qu	alifier Unit	D	%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

LCSD LCSD

<0.00201 U

Surrogate	%Recovery	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** 

Toluene

Analysis Batch: 56541

Client Sample ID: Matrix Spike

70 - 130

103

Prep Type: Total/NA

Prep Batch: 56542

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

0.0996

**Eurofins Carlsbad** 

0.1034

mg/Kg

# QC Sample Results

Job ID: 890-4858-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

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

Lab Sample ID: 880-30147-A-1-C MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 56541

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <0.00201 U 0.0996 0.1007 101 70 - 130 Ethylbenzene mg/Kg m-Xylene & p-Xylene <0.00402 U 0.199 0.2088 mg/Kg 105 70 - 130 <0.00201 U 0.0996 0.1007 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

o-Xylene

Client Sample ID: Matrix Spike Duplicate

mg/Kg

Prep Type: Total/NA

Prep Batch: 56542

Prep Batch: 56542

Sample Sample Spike MSD MSD Result Qualifier RPD Limit Analyte babbA Result Qualifier %Rec Limits Unit 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 0.0994 0.1038 104 70 - 130 35 U mg/Kg 3 m-Xylene & p-Xylene <0.00402 U 0.199 0.2146 mq/Kq 108 70 - 130 3 35 <0.00201 U 0.0994 0.1036 70 - 130 o-Xylene mg/Kg 104 3

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

Analysis Batch: 56450

мв мв Result Qualifier RL Unit D Prepared Dil Fac Analyte Analyzed <50.0 U 50.0 06/28/23 13:20 06/28/23 20:49 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 06/28/23 13:20 06/28/23 20:49 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 06/28/23 13:20 06/28/23 20:49 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	ı	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** Prep Type: Total/NA Analysis Batch: 56450 Prep Batch: 56502

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

C10-C28)

Client Sample ID: Lab Control Sample

Client: Ensolum Job ID: 890-4858-1 Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

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

LCS LCS

Lab Sample ID: LCS 880-56502/2-A **Client Sample ID: Lab Control Sample** 

**Matrix: Solid** 

Analysis Batch: 56450

Prep Type: Total/NA

Prep Batch: 56502

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

Lab Sample ID: LCSD 880-56502/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

Analysis Batch: 56450

Prep Type: Total/NA

Prep Batch: 56502

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 1263 126 70 - 130 20 Gasoline Range Organics mg/Kg 4 (GRO)-C6-C10 Diesel Range Organics (Over 1000 967.6 mg/Kg 97 70 - 1306 20 C10-C28)

LCSD LCSD

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

Lab Sample ID: 880-30102-A-1-F MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 56450

Prep Type: Total/NA

Prep Batch: 56502

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U	999	1118		mg/Kg		110	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	999	1112		mg/Kg		110	70 - 130	
C10 C28)										

C10-C28)

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

Lab Sample ID: 880-30102-A-1-G MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** 

Analysis Batch: 56450

Prep Type: Total/NA Prep Batch: 56502

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	<49.9	U	998	1023		mg/Kg		101	70 - 130	9	20	
(GRO)-C6-C10												
Diesel Range Organics (Over	<49.9	U	998	954.3		mg/Kg		94	70 - 130	15	20	
C10-C28)												

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

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6/30/2023

# QC Sample Results

Client: Ensolum Job ID: 890-4858-1 Project/Site: Poker Lake Unit 183Q

SDG: 03C1588243

Client Sample ID: Method Blank

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-56386/1-A

**Matrix: Solid** 

Analysis Batch: 56440

**Prep Type: Soluble** 

mg/Kg

98

90 - 110

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

Lab Sample ID: LCS 880-56386/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 56440

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits

250

Lab Sample ID: LCSD 880-56386/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

244.2

Analysis Batch: 56440

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 244.2 mg/Kg 90 - 110

Lab Sample ID: 890-4857-A-9-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

Chloride

Analysis Batch: 56440

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added %Rec Result Qualifier Unit Limits 322.6 Chloride 73.7 252 90 - 110 mg/Kg

Lab Sample ID: 890-4857-A-9-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 56440

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 252 Chloride 73.7 323.1 mg/Kg 99 90 - 110 0 20

# **QC Association Summary**

Client: Ensolum Job ID: 890-4858-1 Project/Site: Poker Lake Unit 183Q 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	

# **QC Association Summary**

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

2

4

6

8

9

10

13

1 4

#### Lab Chronicle

Client: Ensolum

Project/Site: Poker Lake Unit 183Q

SDG: 03C1588243

Client Sample ID: PH01

Date Collected: 06/23/23 09:30 Date Received: 06/23/23 16:35 Lab Sample ID: 890-4858-1

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number 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 56722 06/30/23 15:46 SM **EET MID** 8015 NM 56550 Total/NA Analysis 1 06/29/23 09:09 SM **EET MID** 56502 EET MID Total/NA 8015NM Prep 10.04 g 10 mL 06/28/23 13:20 A.I Prep Total/NA Analysis 8015B NM 1 uL 1 uL 56450 06/29/23 05:25 SM **EET MID** Soluble 5.02 g 50 mL 56386 06/27/23 09:33 СН DI Leach **EET MID** Leach Soluble Analysis 300.0 56440 06/27/23 22:51 СН **EET MID** 

Client Sample ID: PH01A

Date Collected: 06/23/23 09:45 Date Received: 06/23/23 16:35 Lab Sample ID: 890-4858-2

Matrix: Solid

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

**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 Job ID: 890-4858-1 Project/Site: Poker Lake Unit 183Q

SDG: 03C1588243

#### **Laboratory: Eurofins Midland**

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

Authority Texas		ogram	Identification Number	<b>Expiration Date</b>
		T104704400-22-25		06-30-23
The following analytes the agency does not of	• •	it the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes fo
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	

# **Method Summary**

Client: Ensolum Job ID: 890-4858-1 Project/Site: Poker Lake Unit 183Q

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

Relinguished by: (Signature)

Received by: (Signature)

623-23 Date/Time

るのスス

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev 2020.2

Circle Method(s) and Metal(s) to be analyzed

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

TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

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

13 14

Chain of Custody

, TX (915) 585-3443, Lubbock, TX (806) 794-1296	TX (432) 704-5440, San Antonio, TX (210) 509-3334	on, TX (281) 240-4200, Dallas, TX (214) 902-0300	

eurofins   Environment Testin		n, TX (281) 240-4200, Dallas, TX (214) 902-0300 X (432) 704-5440, San Antonio, TX (210) 509-3334	Work Order No:	
Xenco	EL Paso, Hobbs,	TX (915) 585-3443, Lubbock, TX (806) 794-1296 NM (575) 392-7550, Carisbad, NM (575) 988-3199	www.xenco.com	Page 1 of 1
	Bill to: (if different)		Work Order Comments	nments
=	Company Name:	5	Program: UST/PST PRP Brown	Brownfields ☐ RRC ☐ Superfund ☐
National P			State of Project:	
S MN PEGS		oad.	Reporting: Level II   Level III   PST/UST   TRRP	ST/UST TRRP LevelIV
30 - 40	Email Carrett.	Green@ Exxon Mobil. com	Deliverables: EDD ADaPT	Other:
HUMBEL	Turn Around		EST	Preservative Codes
245 685 D	sh	Pres.		None: NO DI Water: H <sub>2</sub> O
otbib so				Cool: Cool MeOH: Me
O'Dell	starts the day received by			HCL: HC HNO 3: HN
)	e lab, if received by 4:30pm	5	<del>-</del>	H <sub>2</sub> SO <sub>4</sub> :H <sub>2</sub> NaOH:Na
( Yes No	/et Ice: (Yes)No	eter		H <sub>3</sub> PO <sub>4</sub> : HP
	LOOM ON	S		NaHSO 4: NABIS
Yes No (N/A Correction Factor	3,00	do		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>
Yes No N/A Temperature Rea	ading:			Zn Acetate+NaOH: Zn
Corrected Temps	erature: 18.0	101 H	of Custody	NaOH+Ascorbic Acid: SAPC
Sample Identification Matrix Date Sampled Sa	Depth Grab/			Sample Comments
10/23/23	30 grt 32	× × ×		Incident #
10/23/23	元素の			0 RPP 2315 133551
				cost center:
	\		70	1137901001
	\			
				APT: 30-015: 3 522
				Ben Bellill
				phelill@ensilum.com
	13PPM Texas 11	As Ba Be B Cd Ca Cr Co Cu Fe Pb	Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr T	TI Sn U V Zn
		O C C DI MA MA	A TI II HA: 1631 / 245 1 / 7470 / 7471	17471 07471
	No N	S Environment Testing  Xenco  CARCO  CIty, Statt  CARCO  CORRECTION  Tomalia. CARCO  CORRECTION  CARCO  COMPANIO  CITY, Statt  CARCO  CITY, Statt  COMPANIO  CITY, Statt  CARCO  CITY, Statt  COMPANIO  CITY, Statt  CARCO  CITY, Statt  CARCO  CITY, Statt  COMPANIO  CITY, Statt  COMPANIO  CITY, Statt  COMPANIO  CITY, Statt  CARCO  CITY, Statt  COMPANIO  CITY, Statt  CARCO  CITY, Statt  COMPANIO  CITY, Statt  COMPANIO  CITY, Statt  CARCO  CITY, Statt  COMPANIO  CITY, Statt  COMPANIO  CITY, Statt  CARCO  CITY, Statt  CARCO  CITY, Statt  COMPANIO  CITY STAT	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (232) 704-5440, San Antonio, TX (210) 509-3334  EL Paso, TX (915) 595-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 992-7550, Carlsbad, NM (575) 998-3199  Bill to: (If different) Company Name:  Company Name:  Company Name:  Company Name:  Company Name:  COMPANY CAT. CY CONG. TX (806) 794-1296  ANALYSIS RI  Doubla Company Name:  Tar sants the day received by the lab. if received by 430pm The lab. if received by 430pm The lab. if received by 430pm Cont Company Name:  Time Company Name:  Company Name:  Company Name:  COMPANY CAT. CY CONG. TX CONG. TX (200) 594-1296  ANALYSIS RI  ANA	Houston, TX (281) 240-2400, Dalles, TX (214) 992-9390   Work Order No:   Work Order No:   Mediand, TX (213) 259-2394.   Work Order No:   See   See

# **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	

# **Login Sample Receipt Checklist**

Client: Ensolum

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

Login Number: 4858 **List Source: Eurofins Midland** List Number: 2

List Creation: 06/27/23 10:29 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	N/A	

<6mm (1/4").

**Environment Testing** 

# **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**

Generated 6/30/2023 4:28:50 PM

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

Laboratory Job ID: 890-4867-1 Client: Ensolum SDG: 03C1588243 Project/Site: Poker Lake Unit 183Q

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#### **Definitions/Glossary**

Job ID: 890-4867-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

#### **Qualifiers**

**GC VOA** Qualifier

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** LCS/LCSD RPD exceeds control limits.

**Qualifier Description** 

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 Contains No Free Liquid **CNF** DER

Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

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) Limit of Quantitation (DoD/DOE) LOQ

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL ML Minimum Level (Dioxin) MPN Most Probable Number MOI 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 **Practical Quantitation Limit PQL** 

**PRES** Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER** 

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ** 

**TNTC** Too Numerous To Count

#### Case Narrative

Client: Ensolum

Job ID: 890-4867-1 Project/Site: Poker Lake Unit 183Q 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.

Matrix: Solid

Lab Sample ID: 890-4867-1

## **Client Sample Results**

Client: Ensolum Job ID: 890-4867-1 Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

**Client Sample ID: PH02** 

Date Collected: 06/26/23 09:30 Date Received: 06/26/23 16:56

Sample Depth: 3

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 - 1	Total BTEX Cald	culation						
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 - Diese 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 - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	
Gasoline Range Organics	<49.9	U *1	49.9	mg/Kg		06/20/22 00/50		Dil Fac
1GRU1-00-0 10				mg/Ng		06/29/23 09:50	06/29/23 22:37	
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/29/23 22:37 06/29/23 22:37	1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28)				mg/Kg		06/29/23 09:50	06/29/23 22:37	1
Diesel Range Organics (Over	<49.9 <49.9		49.9 49.9					1
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)		U	49.9	mg/Kg		06/29/23 09:50 06/29/23 09:50 <b>Prepared</b>	06/29/23 22:37 06/29/23 22:37 Analyzed	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/29/23 09:50 06/29/23 09:50	06/29/23 22:37 06/29/23 22:37	1 1 1 <i>Dil Fac</i>
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9 <b>%Recovery</b>	U	49.9	mg/Kg		06/29/23 09:50 06/29/23 09:50 <b>Prepared</b>	06/29/23 22:37 06/29/23 22:37 Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	<49.9  **Recovery  108  94  Chromatograp	Qualifier	49.9  Limits  70 - 130  70 - 130	mg/Kg		06/29/23 09:50 06/29/23 09:50 Prepared 06/29/23 09:50	06/29/23 22:37 06/29/23 22:37 <b>Analyzed</b> 06/29/23 22:37	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	<49.9  **Recovery  108  94  Chromatograp	U Qualifier	49.9  Limits  70 - 130  70 - 130	mg/Kg	<u>D</u>	06/29/23 09:50 06/29/23 09:50 Prepared 06/29/23 09:50	06/29/23 22:37 06/29/23 22:37 <b>Analyzed</b> 06/29/23 22:37	Dil Face

**Client Sample ID: FS03** 

Date Collected: 06/26/23 09:35 Date Received: 06/26/23 16:56

Sample Depth: 4

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	

**Eurofins Carlsbad** 

Lab Sample ID: 890-4867-2

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4867-2

## **Client Sample Results**

Client: Ensolum Job ID: 890-4867-1 Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

**Client Sample ID: FS03** 

Date Collected: 06/26/23 09:35 Date Received: 06/26/23 16:56

Sample Depth: 4

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

Surrogate	%Recovery Qu	ıalifier 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

Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9 l	U	49.9	mg/Kg			06/30/23 10:55	1

Method: SW846 8015B NM - Diesel Range Organics	(DRO)	(GC)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

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
OII 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

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

Lab Sample ID: 890-4867-3 **Client Sample ID: SW03** 

Date Collected: 06/26/23 09:40 Date Received: 06/26/23 16:56

Sample Depth: 0 - 4

Welliou. Syvo40 002 ID - Volat	ne Organic Comp	ounus (GC	<b>)</b>					
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

Mothod: TAI	SOP Total RTFY	- Total RTFY	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00401	U	0.00401	ma/Ka			06/30/23 15:34	

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

Matrix: Solid

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

<50.0	U *1	50.0	mg/Kg		06/29/23 09:50	06/30/23 00:07	1
<50.0	U	50.0	mg/Kg		06/29/23 09:50	06/30/23 00:07	1
<50.0	U	50.0	mg/Kg		06/29/23 09:50	06/30/23 00:07	1
Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
119		70 - 130			06/29/23 09:50	06/30/23 00:07	1
103		70 - 130			06/29/23 09:50	06/30/23 00:07	1
:	<50.0 Recovery 119		<50.0 U 50.0  Recovery Qualifier Limits 70 - 130	<50.0 U 50.0 mg/Kg    Recovery   Qualifier   Limits	<50.0 U 50.0 mg/Kg Recovery 119 Limits 70 - 130	<50.0 U 50.0 mg/Kg 06/29/23 09:50 Recovery 119 70 - 130 Prepared 06/29/23 09:50	<50.0         U         50.0         mg/Kg         06/29/23 09:50         06/30/23 00:07           Recovery         Qualifier         Limits         Prepared         Analyzed           119         70 - 130         06/29/23 09:50         06/30/23 00:07

**Client Sample ID: FS02** Lab Sample ID: 890-4867-4 Date Collected: 06/26/23 09:45 Matrix: Solid

5.01

133

mg/Kg

Date Received: 06/26/23 16:56

Sample Depth: 4

Chloride

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 - 1	otal BTEX Cald	culation						
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 - Diese		, , ,	•					
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
		Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 06/30/23 10:55	Dil Fac
Analyte		Qualifier U	RL 49.9		<u>D</u>	Prepared		Dil Fac
Analyte Total TPH	Result <49.9	Qualifier U	RL 49.9		D_	Prepared Prepared		Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <49.9	Qualifier Unics (DRO) Qualifier	RL 49.9 (GC)	mg/Kg			06/30/23 10:55	1
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result <49.9  sel Range Orga Result	Qualifier Unics (DRO) Qualifier	RL 49.9 (GC)	mg/Kg		Prepared	06/30/23 10:55  Analyzed	1 Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9  sel Range Orga Result	Qualifier U  nics (DRO) Qualifier U *1	RL 49.9 (GC)	mg/Kg		Prepared	06/30/23 10:55  Analyzed	1 Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <a href="#">49.9</a> sel Range Orga Result <a href="#">&lt;49.9</a>	Qualifier U  nics (DRO) Qualifier U *1	RL 49.9  (GC)  RL 49.9	mg/Kg  Unit  mg/Kg		Prepared 06/29/23 09:50	06/30/23 10:55  Analyzed  06/30/23 00:29	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result <a href="#">49.9</a> sel Range Orga Result <a href="#">&lt;49.9</a>	Qualifier U  nics (DRO) Qualifier U *1	RL 49.9  (GC)  RL 49.9	mg/Kg  Unit  mg/Kg		Prepared 06/29/23 09:50	06/30/23 10:55  Analyzed  06/30/23 00:29	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9 sel Range Orga Result <49.9 <49.9	Qualifier U  nics (DRO) Qualifier U *1 U	RL 49.9  (GC) RL 49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50	06/30/23 10:55  Analyzed 06/30/23 00:29 06/30/23 00:29	1 Dil Fac 1
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U  nics (DRO) Qualifier U *1 U	RL 49.9  (GC) RL 49.9  49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50 06/29/23 09:50	06/30/23 10:55  Analyzed 06/30/23 00:29 06/30/23 00:29 06/30/23 00:29	1 Dil Fac 1 1

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06/28/23 19:18

**Matrix: Solid** 

Client: Ensolum SDG: 03C1588243 Project/Site: Poker Lake Unit 183Q

**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: EPA 300.0 - Anions, Ion C	hromatograp	hy - 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 Comple Donthi 0 4

Sample Depth: 0 - 4
<del>-</del>

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U *+	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:21	
Toluene	< 0.00199	U *+	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:21	
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:21	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 19:21	
o-Xylene	< 0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 19:21	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 19:21	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	112		70 - 130			06/29/23 11:48	06/29/23 19:21	
1,4-Difluorobenzene (Surr)	101		70 - 130			06/29/23 11:48	06/29/23 19:21	
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/30/23 15:34	
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.8	U	49.8	mg/Kg			06/30/23 10:55	
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8	mg/Kg		06/29/23 09:50	06/30/23 00:51	
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		06/29/23 09:50	06/30/23 00:51	
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		06/29/23 09:50	06/30/23 00:51	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	102		70 - 130			06/29/23 09:50	06/30/23 00:51	

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Analyzed

06/28/23 19:39

RL

5.00

Unit

mg/Kg

D

Prepared

Dil Fac

Analyte

Chloride

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

737

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

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 Cald	culation						
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 - Diese	ol Pango Organ	ice (DPO) ((	SC)					
Analyte		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 - Die	ool Bongo Orgo	nics (DRO)	(00)					
	sei Kange Orga	ilics (Dito)	(GC)					
Analyte	• •	Qualifier	(GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Gasoline Range Organics	• •	Qualifier	•	<mark>Unit</mark> mg/Kg	D	Prepared 06/29/23 09:50	Analyzed 06/30/23 01:14	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	Qualifier U *1	RL		<u> </u>	<u>·</u>		1
Analyte Gasoline Range Organics (GRO)-C6-C10	Result   <49.9	Qualifier U *1	RL 49.9	mg/Kg	<u>D</u>	06/29/23 09:50	06/30/23 01:14	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <49.9   <49.9	Qualifier U *1 U	RL 49.9 49.9	mg/Kg	<u>D</u>	06/29/23 09:50 06/29/23 09:50	06/30/23 01:14 06/30/23 01:14	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result  <49.9 <49.9 <49.9	Qualifier U *1 U	RL 49.9 49.9 49.9	mg/Kg	<u>D</u>	06/29/23 09:50 06/29/23 09:50 06/29/23 09:50	06/30/23 01:14 06/30/23 01:14 06/30/23 01:14	1 1 1 Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate	Result   <49.9   <49.9   <49.9   <49.9   %Recovery	Qualifier U *1 U	RL 49.9 49.9 49.9 <i>Limits</i>	mg/Kg	<u>D</u>	06/29/23 09:50 06/29/23 09:50 06/29/23 09:50 <b>Prepared</b>	06/30/23 01:14 06/30/23 01:14 06/30/23 01:14 Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result	Qualifier U*1 U Qualifier	RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg	<u> </u>	06/29/23 09:50 06/29/23 09:50 06/29/23 09:50 Prepared 06/29/23 09:50	06/30/23 01:14 06/30/23 01:14 06/30/23 01:14 Analyzed 06/30/23 01:14	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U*1 U Qualifier	RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	06/29/23 09:50 06/29/23 09:50 06/29/23 09:50 Prepared 06/29/23 09:50	06/30/23 01:14 06/30/23 01:14 06/30/23 01:14 Analyzed 06/30/23 01:14	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

**Client Sample ID: SW01** Lab Sample ID: 890-4867-7

Date Collected: 06/26/23 10:00 Date Received: 06/26/23 16:56

Sample Depth: 0 - 4

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)			70 - 130			06/29/23 11:48	06/29/23 20:02	1

**Eurofins Carlsbad** 

**Matrix: Solid** 

Client: Ensolum SDG: 03C1588243 Project/Site: Poker Lake Unit 183Q

**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)
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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		alifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398 U	0.00398	ma/Ka			06/30/23 15:34	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	ma/Ka			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
Oll 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

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

Lab Sample ID: 890-4867-8 **Client Sample ID: FS04** 

Date Collected: 06/26/23 14:00 Date Received: 06/26/23 16:56

Sample Depth: 2

Mothodi	CIMOAC GOOAD	Valatile Or	ganic Compour	de (CC)
i wethod:	5W846 8U21B	- volatile Ur	danic Compour	ias (GC)

mothod. Offort our in	no Organio Comp	ounas (SS)	,					
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

	00	70 - 700	
_			
Method: TAL SOP Total BTEX - Total BT	EX 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

**Eurofins Carlsbad** 

**Matrix: Solid** 

Client: Ensolum Job ID: 890-4867-1 Project/Site: Poker Lake Unit 183Q 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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U *1	49.9	mg/Kg		06/29/23 09:50	06/30/23 01:59	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		06/29/23 09:50	06/30/23 01:59	1
C10-C28)								
Oll 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	Chromatograp	hy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	57.7		4.99	mg/Kg		•——	06/28/23 19:54	

**Client Sample ID: FS05** Lab Sample ID: 890-4867-9 Matrix: Solid

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

Sample Depth: 2

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 - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
								<del></del>
Total BTEX	< 0.00401	U	0.00401	mg/Kg			06/30/23 15:34	1
• •				mg/Kg			06/30/23 15:34	1
Total BTEX : 				mg/Kg			06/30/23 15:34	1
Method: SW846 8015 NM - Diese Analyte	el Range Organ Result	ics (DRO) (		mg/Kg	<u>D</u>	Prepared	06/30/23 15:34  Analyzed	Dil Fac
: Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (	GC)		<u>D</u>	Prepared		·
Method: SW846 8015 NM - Diese Analyte	Result <50.0	ics (DRO) ( Qualifier	RL 50.0	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	el Range Organ Result <50.0 sel Range Organ	ics (DRO) ( Qualifier	RL 50.0	Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	el Range Organ Result <50.0 sel Range Organ	ics (DRO) ( Qualifier U nics (DRO) Qualifier	RL 50.0	Unit mg/Kg		<u> </u>	Analyzed 06/30/23 10:55	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies Analyte	el Range Organ Result <50.0 sel Range Orga Result	ics (DRO) ( Qualifier U nics (DRO) Qualifier	GC)  RL  50.0  (GC)  RL	Unit mg/Kg		Prepared	Analyzed 06/30/23 10:55	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range Organ Result <50.0 sel Range Orga Result	ics (DRO) (( Qualifier U  nics (DRO) Qualifier U *1	GC)  RL  50.0  (GC)  RL	Unit mg/Kg		Prepared	Analyzed 06/30/23 10:55	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range Organ Result <50.0 sel Range Orga Result <50.0	ics (DRO) (( Qualifier U  nics (DRO) Qualifier U *1	GC)  RL  50.0  (GC)  RL  50.0	Unit mg/Kg  Unit mg/Kg		Prepared 06/29/23 09:50	Analyzed 06/30/23 10:55  Analyzed 06/30/23 02:21	Dil Fac  Dil Fac  1
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	el Range Organ Result <50.0 sel Range Orga Result <50.0	cics (DRO) (Control of the property of the pro	GC)  RL  50.0  (GC)  RL  50.0	Unit mg/Kg  Unit mg/Kg		Prepared 06/29/23 09:50	Analyzed 06/30/23 10:55  Analyzed 06/30/23 02:21	Dil Fac  Dil Fac  1
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Organ Result <50.0 sel Range Orga Result <50.0 <50.0	cics (DRO) (( Qualifier U  nics (DRO) Qualifier U*1 U	GC) RL 50.0  (GC) RL 50.0  50.0	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50	Analyzed  06/30/23 10:55  Analyzed  06/30/23 02:21  06/30/23 02:21	Dil Fac  Dil Fac  1
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	el Range Organ Result <50.0  sel Range Orga Result <50.0 <50.0 <50.0	cics (DRO) (( Qualifier U  nics (DRO) Qualifier U*1 U	GC) RL 50.0  (GC) RL 50.0  50.0  50.0	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50 06/29/23 09:50	Analyzed 06/30/23 10:55  Analyzed 06/30/23 02:21 06/30/23 02:21	Dil Fac  Dil Fac  1  1  1

Matrix: Solid

Matrix: Solid

Client: Ensolum Job ID: 890-4867-1 SDG: 03C1588243 Project/Site: Poker Lake Unit 183Q

**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

	Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Į	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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U *+	0.00199	mg/Kg		06/29/23 11:48	06/29/23 21:04	
Toluene	< 0.00199	U *+	0.00199	mg/Kg		06/29/23 11:48	06/29/23 21:04	
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 21:04	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 21:04	
o-Xylene	< 0.00199	U	0.00199	mg/Kg		06/29/23 11:48	06/29/23 21:04	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/29/23 11:48	06/29/23 21:04	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil F
4-Bromofluorobenzene (Surr)	103		70 - 130			06/29/23 11:48	06/29/23 21:04	
1,4-Difluorobenzene (Surr)	104		70 - 130			06/29/23 11:48	06/29/23 21:04	
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil F
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/30/23 15:34	-
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (	GC)			Dogwood		D:: F
Method: SW846 8015 NM - Diese Analyte	el Range Organ Result	ics (DRO) (	GC)	Unit	<u>D</u>	Prepared	Analyzed	Dil F
Method: SW846 8015 NM - Diese Analyte	el Range Organ	ics (DRO) (	GC)		<u>D</u>	Prepared		Dil F
Method: SW846 8015 NM - Diese Analyte Total TPH	el Range Organ Result <49.9	ics (DRO) (Gualifier	RL 49.9	Unit	<u>D</u>	Prepared	Analyzed	Dil F
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	el Range Organ Result <a href="#">&lt;49.9</a> sel Range Organ	ics (DRO) (Gualifier	RL 49.9	Unit	<u>D</u>	Prepared Prepared	Analyzed	
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte  Gasoline Range Organics	el Range Organ Result <a href="#">&lt;49.9</a> sel Range Organ	Qualifier Unics (DRO) Qualifier	RL 49.9 (GC)	Unit mg/Kg			Analyzed 06/30/23 10:55	
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte  Gasoline Range Organics (GRO)-C6-C10	el Range Organ Result <a href="#">&lt;49.9</a> <a href="#">sel Range Organ</a> Result	ics (DRO) (0 Qualifier U  nics (DRO) Qualifier U *1	RL 49.9 (GC)	Unit mg/Kg		Prepared	Analyzed 06/30/23 10:55	
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range Organ Result <a href="#">Result</a> <a href="#">Result</a> <a href="#">Result</a> <a href="#">&lt;49.9</a>	ics (DRO) (0 Qualifier U  nics (DRO) Qualifier U *1	(GC)  RL  49.9  (GC)  RL  49.9	Unit mg/Kg  Unit mg/Kg		Prepared 06/29/23 09:50	Analyzed 06/30/23 10:55  Analyzed 06/30/23 02:44	
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Organ Result <a href="#">Result</a> <a href="#">Result</a> <a href="#">Result</a> <a href="#">&lt;49.9</a>	ics (DRO) (0 Qualifier U  nics (DRO) Qualifier U *1 U	(GC)  RL  49.9  (GC)  RL  49.9	Unit mg/Kg  Unit mg/Kg		Prepared 06/29/23 09:50	Analyzed 06/30/23 10:55  Analyzed 06/30/23 02:44	
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	el Range Organ Result 49.9 sel Range Orga Result  49.9	ics (DRO) (0 Qualifier U  nics (DRO) Qualifier U*1 U	(GC)  RL  49.9  (GC)  RL  49.9  49.9	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50	Analyzed 06/30/23 10:55  Analyzed 06/30/23 02:44 06/30/23 02:44	Dil F
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	el Range Organ Result 49.9 sel Range Orga Result  49.9 49.9	ics (DRO) (0 Qualifier U  nics (DRO) Qualifier U*1 U	GC) RL 49.9  (GC) RL 49.9  49.9  49.9	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50 06/29/23 09:50	Analyzed 06/30/23 10:55  Analyzed 06/30/23 02:44 06/30/23 02:44	Dil F
Method: SW846 8015 NM - Diese	el Range Organ Result <49.9 sel Range Orga Result <49.9 <49.9 <49.9 %Recovery	ics (DRO) (0 Qualifier U  nics (DRO) Qualifier U*1 U	GC) RL 49.9  (GC) RL 49.9  49.9  49.9  Limits	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50 06/29/23 09:50 Prepared	Analyzed 06/30/23 10:55  Analyzed 06/30/23 02:44 06/30/23 02:44  Analyzed	Dil F
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	sel Range Organ Result <49.9 sel Range Orga Result <49.9 <49.9 <49.9  **Recovery** 123 106	ics (DRO) ((Qualifier U *1 U U Qualifier	GC)  RL 49.9  (GC)  RL 49.9  49.9  49.9  Limits 70 - 130 70 - 130	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50 06/29/23 09:50  Prepared 06/29/23 09:50	Analyzed 06/30/23 10:55  Analyzed 06/30/23 02:44 06/30/23 02:44  Analyzed 06/30/23 02:44	Dil F

**Eurofins Carlsbad** 

06/29/23 09:57

4.97

mg/Kg

39.1

Chloride

## **Client Sample Results**

Client: Ensolum Job ID: 890-4867-1
Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

Client Sample ID: SW05

Lab Sample ID: 890-4867-11

Date Collected: 06/26/23 14:30

Matrix: Solid

Date Collected: 06/26/23 14:30
Date Received: 06/26/23 16:56

Sample Depth: 0 - 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00201	U *+	0.00201	mg/Kg		06/29/23 11:48	06/29/23 22:55	
Toluene	<0.00201	U *+	0.00201	mg/Kg		06/29/23 11:48	06/29/23 22:55	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/29/23 11:48	06/29/23 22:55	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/29/23 11:48	06/29/23 22:55	
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/29/23 11:48	06/29/23 22:55	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/29/23 11:48	06/29/23 22:55	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	95		70 - 130			06/29/23 11:48	06/29/23 22:55	
1,4-Difluorobenzene (Surr)	96		70 - 130			06/29/23 11:48	06/29/23 22:55	
· Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00402	U	0.00402	mg/Kg			06/30/23 15:34	-
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (	GC)					
		ics (DRO) ( Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fa
Analyte	Result		•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 06/30/23 10:55	Dil Fac
Analyte Total TPH	<b>Result</b> <49.9	Qualifier U	RL 49.9		<u>D</u>	Prepared		Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <49.9	Qualifier U	RL 49.9		<u>D</u>	Prepared Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte	Result <49.9	Qualifier U	RL 49.9	mg/Kg			06/30/23 10:55	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte  Gasoline Range Organics	Result <49.9 sel Range Orga	Qualifier Unics (DRO) Qualifier	RL 49.9 (GC)	mg/Kg		Prepared	06/30/23 10:55  Analyzed	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result <49.9 sel Range Orga	Qualifier U  nics (DRO) Qualifier U *1	RL 49.9 (GC)	mg/Kg		Prepared	06/30/23 10:55  Analyzed	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9 sel Range Orga Result <49.9 <49.9	Qualifier U  nics (DRO) Qualifier U *1	RL 49.9  (GC)  RL 49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50	06/30/23 10:55  Analyzed 06/30/23 08:28 06/30/23 08:28	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9 sel Range Orga Result <49.9	Qualifier U  nics (DRO) Qualifier U *1	(GC) RL 49.9	mg/Kg  Unit  mg/Kg		Prepared 06/29/23 09:50	06/30/23 10:55  Analyzed  06/30/23 08:28	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.9 sel Range Orga Result <49.9 <49.9	Qualifier U  nics (DRO) Qualifier U *1 U	RL 49.9  (GC)  RL 49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50	06/30/23 10:55  Analyzed 06/30/23 08:28 06/30/23 08:28	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   <49.9	Qualifier U  nics (DRO) Qualifier U *1 U	RL 49.9 (GC) RL 49.9 49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50 06/29/23 09:50	06/30/23 10:55  Analyzed 06/30/23 08:28 06/30/23 08:28	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <49.9	Qualifier U  nics (DRO) Qualifier U *1 U	RL 49.9 (GC) RL 49.9 49.9 Limits	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50 06/29/23 09:50 Prepared	06/30/23 10:55  Analyzed 06/30/23 08:28 06/30/23 08:28 06/30/23 08:28 Analyzed	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result   <49.9	Qualifier U  nics (DRO) Qualifier U *1 U  Qualifier	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50 06/29/23 09:50  Prepared 06/29/23 09:50	06/30/23 10:55  Analyzed 06/30/23 08:28  06/30/23 08:28  Analyzed 06/30/23 08:28	Dil Fac
Oll Range Organics (Over C28-C36)  Surrogate	Result   <49.9	Qualifier U  nics (DRO) Qualifier U *1 U  Qualifier	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 06/29/23 09:50 06/29/23 09:50 06/29/23 09:50  Prepared 06/29/23 09:50	06/30/23 10:55  Analyzed 06/30/23 08:28  06/30/23 08:28  Analyzed 06/30/23 08:28	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane 0-Terphenyl  Method: EPA 300.0 - Anions, Ion	Result   <49.9	Qualifier U  nics (DRO) Qualifier U*1 U  Qualifier	RL 49.9  (GC)  RL 49.9  49.9  49.9  Limits  70 - 130  70 - 130	mg/Kg  Unit mg/Kg  mg/Kg  mg/Kg	<u>D</u>	Prepared 06/29/23 09:50 06/29/23 09:50 06/29/23 09:50  Prepared 06/29/23 09:50 06/29/23 09:50	06/30/23 10:55  Analyzed 06/30/23 08:28 06/30/23 08:28  Analyzed 06/30/23 08:28  06/30/23 08:28	Dil Fa

## **Surrogate Summary**

Client: Ensolum Job ID: 890-4867-1
Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(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	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
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	

1CO = 1-Chlorooctane

## **Surrogate Summary**

Client: Ensolum

Project/Site: Poker Lake Unit 183Q

OTPH = o-Terphenyl

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

### **QC Sample Results**

Client: Ensolum Job ID: 890-4867-1
Project/Site: Poker Lake Unit 183Q 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

	MB	MB						
Analyte	Result	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

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepare	ed Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	63	S1-	70 - 130	06/29/23 0	8:45 06/29/23 16:14	1
1,4-Difluorobenzene (Surr)	86		70 - 130	06/29/23 0	8:45 06/29/23 16:14	1

Lab Sample ID: LCS 880-56543/1-A Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 56598

Prep Type: Total/NA

Prep Batch: 56543

	<b>Spike</b>	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery Qualifie	er 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

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%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

LCSD LCSD

<0.00201 UF1

Surrogate	%Recovery	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** 

Toluene

Analysis Batch: 56598

Client Sample ID: Matrix Spike

70 - 130

63

Prep Type: Total/NA

Prep Batch: 56543

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

0.0996

Eurofins Carlsbad

0.06324 F1

mg/Kg

9

3

4

6

7

9

11

13

Prep Type: Total/NA

Client Sample ID: Method Blank

Prep Batch: 56543

## QC Sample Results

Client: Ensolum Job ID: 890-4867-1 Project/Site: Poker Lake Unit 183Q 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** 

Analysis Batch: 56598

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
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	

MS MS

Surrogate	%Recovery	Qualifier	Limits
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

Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier %Rec Limits RPD Limit Analyte Unit 0.0994 Benzene <0.00201 U\*+ 0.06930 mg/Kg 70 70 - 130 5 35 Toluene 0.0994 0.05814 F1 70 - 130 <0.00201 UF1 mg/Kg 58 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 45 70 - 130 22 35 mg/Kg 0.0994 o-Xylene <0.00201 UF1 0.04332 F1 44 70 - 130 25 mg/Kg

MSD MSD

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

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

**Matrix: Solid** 

Prep Type: Total/NA **Analysis Batch: 56600** Prep Batch: 56597 MB MB Result Qualifier Analyte Analyzed Dil Fac Prepared

Allalyte	Result	Qualifici	INL	Onit		riepaieu	Allalyzeu	Diriac
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

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
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

**Matrix: Solid** 

Analysis Batch: 56600

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

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
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

## **QC Sample Results**

Client: Ensolum Job ID: 890-4867-1 SDG: 03C1588243 Project/Site: Poker Lake Unit 183Q

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

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

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

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

Lab Sample ID: LCSD 880-56597/2-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Matrix: Solid Analysis Batch: 56600** 

-	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%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

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

Lab Sample ID: 890-4867-1 MS Client Sample ID: PH02 **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 56600 Prep Batch: 56597

	Sample	Sample	<b>Spike</b>	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

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

Lab Sample ID: 890-4867-1 MSD Client Sample ID: PH02 **Matrix: Solid** 

Prep Type: Total/NA **Analysis Batch: 56600** Prep Batch: 56597

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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

**Eurofins Carlsbad** 

Prep Batch: 56597

Job ID: 890-4867-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

Limits

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 %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

MB MB

MSD MSD

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 06/29/23 09:50 06/29/23 21:29 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 06/29/23 09:50 06/29/23 21:29 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 06/29/23 09:50 06/29/23 21:29

MB MB

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

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

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

LCS LCS

%Recovery Surrogate Qualifier Limits 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

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

LCSD LCSD

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

## QC Sample Results

Job ID: 890-4867-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q 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

Sample Sample Spike MS MS Result Qualifier Analyte babbA Result Qualifier Unit %Rec Limits Gasoline Range Organics <49.9 U\*1 998 1213 mg/Kg 120 70 - 130 (GRO)-C6-C10 998 Diesel Range Organics (Over <49.9 U 1109 mg/Kg 109 70 - 130

C10-C28)

MS MS

MCD MCD

MB MB

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

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

	INISD	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** 

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

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

Lab Sample ID: LCS 880-56483/2-A

**Matrix: Solid Prep Type: Soluble** Analysis Batch: 56511 LCS LCS Spike %Rec

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

Lab Sample ID: LCSD 880-56483/3-A

Matrix: Solid

Analysis Batch: 56511

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

**Eurofins Carlsbad** 

**Prep Type: Soluble** 

## **QC Sample Results**

Client: Ensolum Job ID: 890-4867-1 Project/Site: Poker Lake Unit 183Q

SDG: 03C1588243

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4867-9 MS **Client Sample ID: FS05 Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 56511

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

Lab Sample ID: 890-4867-9 MSD **Client Sample ID: FS05 Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 56511

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

# **QC Association Summary**

Client: Ensolum Job ID: 890-4867-1 Project/Site: Poker Lake Unit 183Q 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	<u> </u>
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

Γ					
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

# **QC Association Summary**

Client: Ensolum Job ID: 890-4867-1 Project/Site: Poker Lake Unit 183Q 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	

# **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	
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#### **HPLC/IC**

#### Leach Batch: 56483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
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

**Eurofins Carlsbad** 

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Date Received: 06/26/23 16:56

Job ID: 890-4867-1

Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

**Client Sample ID: PH02** Lab Sample ID: 890-4867-1 Date Collected: 06/26/23 09:30

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 4.95 g 5 mL 56597 06/29/23 11:48 EL EET MID Total/NA 8021B 5 mL **EET MID** Analysis 1 5 mL 56600 06/29/23 18:19 SM Total/NA Total BTEX 56718 06/30/23 15:34 SM Analysis **EET MID** 1 Total/NA Analysis 8015 NM 56676 06/30/23 10:55 SM **EET MID** Total/NA 56560 Prep 8015NM Prep 10.02 g 10 mL 06/29/23 09:50 ΑJ EET MID Total/NA Analysis 8015B NM 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 50 mL 50 mL 56511 06/28/23 19:13 СН **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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

Client Sample ID: FS02

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

Lab Sample ID: 890-4867-4

Matrix: Solid

**Matrix: Solid** 

**Matrix: Solid** 

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Date Received: 06/26/23 16:56

Batch Batch Dil Initial Final Batch Prepared Method Amount Number **Prep Type** Type Run Factor Amount or Analyzed Analyst Lab Prep Total/NA 5035 5.03 g 5 mL 56597 06/29/23 11:48 EL **EET MID** Total/NA Analysis 8021B 5 mL 5 mL 56600 06/29/23 19:21 SM **EET MID** 1 Total/NA Analysis Total BTEX 1 56718 06/30/23 15:34 SM **EET MID** Total/NA 8015 NM 56676 06/30/23 10:55 **EET MID** Analysis SM Total/NA Prep 8015NM Prep 10.04 g 10 mL 56560 06/29/23 09:50 AJ **EET MID** Total/NA 8015B NM 1 uL 56535 06/30/23 00:51 SM **EET MID** Analysis 1 uL Soluble Leach DI Leach 5 g 50 mL 56483 06/28/23 09:54 KS **EET MID** Soluble Analysis 300.0 50 mL 50 mL 56511 06/28/23 19:39 СН **EET MID** 1

**Client Sample ID: FS01** Lab Sample ID: 890-4867-6

Date Collected: 06/26/23 09:55 Date Received: 06/26/23 16:56

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Method Run Factor Amount Amount Number or Analyzed Type Analyst Lab Total/NA Prep 5035 4.95 g 5 mL 56597 06/29/23 11:48 EL **EET MID** Total/NA 8021B 5 mL 5 mL 56600 06/29/23 19:42 SM Analysis **EET MID** 1 Total/NA Analysis Total BTEX 1 56718 06/30/23 15:34 SM **EET MID** Total/NA Analysis 8015 NM 56676 06/30/23 10:55 SM **EET MID** 1 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 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 50 mL 50 mL 56511 06/28/23 19:44 СН EET MID 1

Client Sample ID: SW01 Lab Sample ID: 890-4867-7

Date Collected: 06/26/23 10:00 Date Received: 06/26/23 16:56

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.04 g 1 uL	10 mL 1 uL	56560 56535	06/29/23 09:50 06/30/23 01:36	AJ SM	EET MID EET MID

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

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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Date Received: 06/26/23 16:56

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

Date Received: 06/26/23 16:56

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** 

**Matrix: Solid** 

**Matrix: Solid** 

Released to Imaging: 1/17/2024 1:08:35 PM

#### **Lab Chronicle**

Client: Ensolum Job ID: 890-4867-1 Project/Site: Poker Lake Unit 183Q 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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

## **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	Pr	ogram	Identification Number	<b>Expiration Date</b>
Texas	NE	ELAP	T104704400-22-25	06-30-23
The following analytes	are included in this report, bu	it the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes for
the agency does not of	fer certification.	•	, , ,	,
the agency does not of Analysis Method	fer certification .  Prep Method	Matrix	Analyte	,
0 ,		Matrix Solid	Analyte Total TPH	

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## **Method Summary**

Client: Ensolum Job ID: 890-4867-1 Project/Site: Poker Lake Unit 183Q

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	Dep
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 -
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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Work Order No:

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334

**Environment Testing** 

eurofins :

Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Chain of Custody

Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296

Revised Date 08/25/2020 Rev. 2020.

6/30/2023

phelill ensular den Level IV 50-015-33224 Superfund DI Water: H<sub>2</sub>O NAPP 2315153557 HNO 3: HN MeOH: Me NaOH: Na NaOH+Ascorbic Acid: SAPC Sample Comments Preservative Codes Date/Time Center 1127901001 ncident # Zn Acetate+NaOH: Zn PST/UST TRRP Belill RRC Na25203: NaSO 3 Other: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Tl Sn U V Zn NaHSO 4: NABIS Hg: 1631 / 245.1 / 7470 / 7471 UST/PST | PRP | Brownfields | H<sub>3</sub>PO 4: HP None: NO H2504:H2 COSt Cool: Cool Ben HCL: HC Work Order Comments API ADaPT Received by: (Signature) Reporting: Level II ☐ Level III ☐ EDD State of Project: um 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. Deliverables: Program: TCLP/SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Vertice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affillates 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 890-4867 Chain of Custody ANALYSIS REQUEST Relinquished by: (Signature) Exxon Mobil com Green E. Greente MM. FNexau () arrett BLEX rands bad LDH Date/Time 10.26.23 4104 SYPPING. Sapidolux Cont Pres. Code Parameters Bill to: (if different) Company Name: Grab/ Comp 4.0 City, State ZIP: Samet TAT starts the day received by the lab, if received by 4:30pm VMOOL 5094 Yes No Rush 16-0 Address: Depth Turn Around Received by, (Signature) Email: 19:55 15 2.0 2.50 9:55 Due Date: 84 Routine Wet Ice: Corrected Temperature: Sampled Darky HWU Time Temperature Reading: 98220 Correction Factor: Thermometer ID: 200 Yes No JOREY LAYOUNIN 18 Sampled Date 24063 - 103 91910 Mariaha O'Dell Circle Method(s) and Metal(s) to be analyzed 3 1688243 ZZ 0 3122 National Matrix 999-854 5 Yes No (N/A) Temp Blank: N/A 200.8 / 6020: MM BPI (Yes No arlibac Yes No FINSOLI Ren Relinquished by: (Signature) 12 Sample Identification Samples Received Intact: Total 200.7 / 6010 Sample Custody Seals: Cooler Custody Seals: SAMPLE RECEIPT Project Manager: Project Number: Company Name: Project Location: Sampler's Name: Total Containers: SWOS 1105± 5051 SWOI City, State ZIP: S W02 FSOI TION 60Ha IN SOL FS02 Address: PO#:

Work Order No:

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Chain of Custody

**Environment Testing** 

Xenco		EL Paso, 7 Hobbs, N	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	TX (806) 794-1296 NM (575) 988-3199	www.xenco.com	Page 2. of 2.
Project Manager: Ren Belill		Bill to: (if different)	GALLEH	r Green	Work Order Comments	E
FMOL	LC.	Company Name:	XTO Energ	nba	Program: UST/PST ☐ PRP ☐ Bro	Brownfields ☐ RRC ☐ Superfund ☐
7192	I DAY KS	HWY Address:	3104 F.G	oreine St	State of Project:	
re ZIP: Calv ISDAC	1 9822	City, State ZIP:	Carlsbad		evel III	PST/UST TRRP Level IV
989-854	-0852 Email:	Sarrett.	SVEEREEXXI	Exxon Mobil. Com	Deliverables: EDD ADal	ADaPT ☐ Other:
Project Name.	1) mit 1830	Turn Around		ANALYSIS REQUEST	ST	Preservative Codes
DSC15882	13   Rout	45	Pres. Code			None: NO DI Water: H <sub>2</sub> O
32.74083	103.91910 Due Date:	DO 22				Cool: Cool MeOH: Me
Mariaha	1	TAT starts the day received by				
	the lab, if rec	the lab, if received by 4:30pm	s			H₂SO 4: H₂ NaOH: Na
SAMPLE RECEIPT Temp Blank:	Yes No Werree:	Yes No	S			H <sub>3</sub> PO <sub>4</sub> : HP
Samples Received Intact: Yes No	Thermometer ID:		į			NaHSO 4: NABIS
Cooler Custody Seals: Yes No N/A	Correction Eactor:		21/			Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO 3
Sample Custody Seals: Yes No CHATA	Temperature Reading:		10			Zn Acetate+NaOH: Zn
Total Containers:	Corrected Temperature:		HCIL			NaOH+Ascorbic Acid: SAPC
Sample Identification Matrix	Date Time	Depth Grab/	B L L L L L L L L L L L L L L L L L L L			Sample Comments
SINDS	2		X			Incident #
	1_					MAPP 23 15133557
						COST CONTEr:
						1137901001
						API 30-015-3324
					3	
						Ben Beill.
						Doeiill Censolum. de
Total 200.7 / 6010 200.8 / 6020:	8RCRA 13PPM	M Texas 11 Al		Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K	Ai K Se	TI Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	lyzed TCLP / §	TCLP / SPLP 6010 : 8RCRA	A Sb As Ba Be Cd C	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	Ag TI U Hg: 1631 / 245.1 / 7470 / 7471	/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 subcontractions, 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 service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of services. 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 nego	les constitutes a valld purchase or bles and shall not assume any resp to each project and a charge of \$?	der from client company to onsibility for any losses or e for each sample submitter	Eurofins Xenco, its affiliates and xpenses incurred by the client if it to Eurofins Xenco, but not anal	from client company to Euroffins Xenco, its affiliates and subcontractors, it assigns standard terms and conditions bility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control each sample submitted to Euroffins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	and conditions nd the control previously negotiated.	
Relinquished by (Signature)	Receivedby: (Signature)	(e)	Date/Time	Relinquished by: (Signature)	e) Received by: (Signature)	e) Date/Time
· M. Core	Co Co	9	120156060	3.		
)				*		

Eurofins Carlsbad 1089 N Canal St.

Carlsbad NM 88220

Phone 575-988-3199 Fax. 575-988-3199

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# Chain of Custody Record

💸 eurofins

Environment Testing

State Zip: **TX**, 79701 SW01 (890-4867-7) SW02 (890-4867-5) SW03 (890-4867-3) Empty Kit Relinquished by FS04 (890-4867-8) FS03 (890-4867-2) PH02 (890-4867-1) Sample Identification - Client ID (Lab ID) Poker Lake Unit 183Q 432-704-5440(Tel) Eurofins Environment Testing South Centr Shipping/Receiving lote: 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 aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix 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 consider the samples are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC. <sup>--</sup>S05 (890-4867-9) <sup>-</sup>S01 (890-4867-6) <sup>2</sup>S02 (890-4867-4) Midland 1211 W Florida Ave Deliverable Requested | II III IV Other (specify) Client Information (Sub Contract Lab) Possible Hazard Identification elinquished by alinquished by elinquished by: Custody Seals Intact: Yes S 8 Custody Seal No Phone: ₩ 0 Date/Time Primary Deliverable Rank 2 89000093 PO# TAT Requested (days) 6/30/2023 Due Date Requested Sampler SOW# Sample Date 6/26/23 6/26/23 6/26/23 6/26/23 6/26/23 6/26/23 6/26/23 6/26/23 Time 6/26/23 Mountain 10 00 Mountain 09 55 Mountain 09 50 Mountain 09 35 Mountain 12 50 Mountain 09 45 Date Mountain 09 40 Mountain 14 00 09 30 (C=comp, G=grab) Sample Type Preservation Code: Company Company Matrix Solid Solid Solid Solid Solid Solid Solid Solid Solid Kramer Jessica E-Mail Lab PM Jessica Kramer@et.eurofinsus.com ime: **NELAP - Texas** Accreditations Required (See note): Perform MS/MSD (Yes or No) Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Special Instructions/QC Requirements Received by 8015MOD\_NM/8015NM\_S\_Prep (MOD) Full TPI × × × × × Cooler Temperature(s) "C and Other Remarks × × × × Return To Client × × × × × × × × × 300 ORGFM 28D/DI LEACH Chloride × × × × × × × × × × × × × × × × 3021B/5035FP\_Calc (MOD) BTEX × Analysis Requested × × × × Total BTEX GC × × × × × Disposal By Lab State of Origin
New Mexico Carrier Tracking No(s) Date/Time Ć, Archive For 4 150 Total Number of containers A HCL
B NaOH
C Zn Acetate
D Nitric Acid
E NaHSO4
F MeOH
G Amchlor
H Ascorbic Acid COC No: 890-1346 1 Preservation 890-4867-1 Page 1 of 2 ice
DI Water
EDTA
EDA Special Instructions/Note: M Hexane
N-None
N-None /er: 06/08/2021 other (specify) Months

Eurofins Carlsbad  1089 N Canal St Carlsbad, NM 88220  Phone 575-088-3100 Fay 575-088-3100	0	Chain of Custody Record	of Cust	ody R	900	3												٠.	💸 eurofins		Environment Testing	esting
Client Information (Sub Contract Lab)	Sampler			Lab PM Krame	Lab PM Kramer, Jessica	sica	I		ı		i	Carrie	Carrier Tracking No(s)	king	o(s)				COC No: 890-1346 2			
1	Phone.			E-Mail Jessi	E-Mail Jessica Kramer@et.eurofinsus com	mer@	et.eu	ofins	R 8	3		State	State of Origin: New Mexico	8 ä					Page Page 2 of 2			$\perp$
Company Eurofins Environment Testing South Centr					Accreditations Required (See note) NELAP - Texas	ations F	equire (as	d (See	note):										Job #: 890-4867-1			
Address 1211 W Florida Ave ,	Due Date Requested 6/30/2023	ā							Anal	Vsis	₽ P	Requested	2					$\bot$	Preservation Codes	Codes		
City <sup>-</sup> Midland	TAT Requested (days):	ys):				$\Box$	_								_	_			A HCL B NaOH		None - AsNaO2	
State Zip: TX, 79701						ТРН													D Nitric Acid E NaHSO4	עס פ	Na2O4S - Na2SO3	
Phone: 432-704-5440(TeI)	PO#-				)	D) Full													F MeOH G Amchior	ï	- H2SO4 TSP Dodecahydrate	rate
Email	#OW					p (MO	Chlorie											5			- Acetone MCAA	
Project Name Poker Lake Unit 183Q	Project #: 89000093					S_Pre	EACH											tainer	K EDTA	N≺≤	Y Trizma  Z other (specify)	
Site	SSOW#:				No literatura	016NM	D/DL I		+									ofcon	Other:			
		Sample	Sample Type (C=comp,	Matrix (w=water S=solid, O=waste/oil,	ild Filtered S rform MS/M	I5MOD_NM/8	I6MOD_Calc D_ORGFM_28	21B/6036FP_0	al_BTEX_GC									al Number				
		X	Preservation Code:		Will b	365.6	Village	Arrest Mary	and of	1000					1			$\times 1$	Open		opeda illau ucuolis/Note.	
SW04 (890-4867-10)	6/26/23	12 55 Mountain		Solid		×	×	×	×									4		de designations of the second		
SW05 (890-4867-11)	6/26/23	14 30 Mountain		Solid		×	×	×	×									4				
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						_	+	+	+	$\top$				$\perp$								
																		A COLLEGE				
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/tests/maintx 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.	Testing South Centra ove for analysis/tests/ tral LLC attention imi	al LLC places the matrix being an mediately If all	ne ownership o alyzed, the san	f method, analy nples must be a reditations are	te & acc	creditation back to to date,	on com the Eu	pliance rofins E	e upon Enviror	our su	bcontr Festing	act lat Sout	orator Cent	ies. 1	his sa	Imple orator	shipn	ment ther	s forwarded ur nstructions wil	nder chain be provic	of-custody If the	′ਰ ਁ
Possible Hazard Identification Unconfirmed					San	Sample Disposal ( A fee	)ispo	sal (	A fee	may	⊔be a	sses	sed	fsar	nple	s are		aine	be assessed if samples are retained longer than 1	an 1 m	month)	
Deliverable Requested I II III IV Other (specify)	Primary Deliverable Rank 2	ble Rank 2			Spe	Special Instructions/QC Requirements	ial Instructions/QC	tions/	° CR	equir	emer	ents.	901	100			Ι,	ŝ	AICHNE FOI		MOnths	
Empty Kit Relinquished by		Date			Time				1 1	,			Metho	Method of Shipment:	hipme	ň						
Relinquished by	Date/Time		O	Company		Received by	ed by:	2		Ž	P	$\leq$	KI	Z	∂ate/Time	ime		l		0	Company	
Relinquished by	Date/Time		0	Company		Received	3	4							Date/Time	ime				0	Company	
Relinquished by	Date/Time <sup>.</sup>		0	Company		Received by	ed by	4							Date/Time	ime					Company	
Custody Seals Intact. Custody Seal No						Cooler Temperature(s) °C	Tempe	rature(	s) °C =	and Other Remarks	ner Re	narks		L		l				-		

### **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-4867-1 SDG Number: 03C1588243

Login Number: 4867 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	

### **Login Sample Receipt Checklist**

Client: Ensolum

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

Login Number: 4867
List Source: Eurofins Midland
List Number: 2
List Creation: 06/28/23 10:43 AM

Creator: Kramer, Jessica

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	N/A	

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<6mm (1/4").

**Environment Testing** 

# **ANALYTICAL REPORT**

# PREPARED FOR

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

Generated 7/3/2023 2:18:17 PM

# **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**

Generated 7/3/2023 2:18:17 PM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Page 2 of 22

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Client: Ensolum
Project/Site: Poker Lake Unit 183Q
Laboratory Job ID: 890-4874-1
SDG: 03C1588243

# **Table of Contents**

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### **Definitions/Glossary**

Job ID: 890-4874-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q

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** 

Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**Glossary** 

MCL

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

DFR 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

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL 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

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TEQ

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: Ensolum

Job ID: 890-4874-1

Project/Site: Poker Lake Unit 183Q

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.

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Matrix: Solid

Lab Sample ID: 890-4874-1

Job ID: 890-4874-1

Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

**Client Sample ID: PH03** 

Date Collected: 06/27/23 09:10 Date Received: 06/28/23 09:39

Sample Depth: 6

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 - 1	Total BTEX Cald	culation						
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 - Diese	ol Pango Organ	ice (DPO) (	SC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	П						
		O	50.0	mg/Kg			07/03/23 15:06	1
Method: SW846 8015B NM - Dies	sel Range Orga			mg/Kg			07/03/23 15:06	1
Method: SW846 8015B NM - Dies Analyte	• •			mg/Kg <b>Unit</b>	D	Prepared	07/03/23 15:06  Analyzed	1 Dil Fac
Analyte Gasoline Range Organics	• •	nics (DRO) Qualifier	(GC)		<u>D</u>	Prepared 07/02/23 11:21		
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	nics (DRO) Qualifier	(GC)	Unit	<u>D</u>		Analyzed	Dil Fac
	Result < 50.0	nics (DRO) Qualifier U	(GC) RL 50.0	Unit mg/Kg	<u>D</u>	07/02/23 11:21	Analyzed 07/03/23 01:17	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0 <50.0	nics (DRO) Qualifier U	(GC) RL 50.0	Unit mg/Kg mg/Kg	<u>D</u>	07/02/23 11:21 07/02/23 11:21	Analyzed 07/03/23 01:17 07/03/23 01:17	<b>Dil Fac</b> 1 1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result  <50.0 <50.0 <50.0	nics (DRO) Qualifier U	(GC) RL 50.0 50.0	Unit mg/Kg mg/Kg	<u>D</u>	07/02/23 11:21 07/02/23 11:21 07/02/23 11:21	Analyzed 07/03/23 01:17 07/03/23 01:17 07/03/23 01:17	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   <50.0   <50.0   <50.0   <50.0   <60.0   %Recovery	nics (DRO) Qualifier U	(GC)  RL  50.0  50.0  50.0 <i>Limits</i>	Unit mg/Kg mg/Kg	<u> </u>	07/02/23 11:21 07/02/23 11:21 07/02/23 11:21 <i>Prepared</i>	Analyzed 07/03/23 01:17 07/03/23 01:17 07/03/23 01:17 Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result	U  Qualifier  U  Qualifier	(GC)  RL 50.0  50.0  50.0  Limits 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	07/02/23 11:21 07/02/23 11:21 07/02/23 11:21 <b>Prepared</b> 07/02/23 11:21	Analyzed 07/03/23 01:17 07/03/23 01:17 07/03/23 01:17  Analyzed 07/03/23 01:17	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	U  Qualifier  U  Qualifier	(GC)  RL 50.0  50.0  50.0  Limits 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	07/02/23 11:21 07/02/23 11:21 07/02/23 11:21 <b>Prepared</b> 07/02/23 11:21	Analyzed 07/03/23 01:17 07/03/23 01:17 07/03/23 01:17  Analyzed 07/03/23 01:17	Dil Fac  1  1  1  Dil Fac  1

**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

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	

Job ID: 890-4874-1

Client: Ensolum Project/Site: Poker Lake Unit 183Q 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 Compound	s (GC) (Continued)
motiloa. Otto-to coz ib	Tolutile Organie Compound	5 ( <b>5</b> 5) ( <b>5</b> 5) (11) (11)

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

#### 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	ma/Ka			06/30/23 15:25	1

Method: SW846 8015 NM - Diese	L Danna Ornaniaa (DDO) (C	$\sim$
- Niethod: Syvoan bulls Nivi - Diese	i Rande Ordanics (DRO) (G	

Analyte	Result Qu	ualifier 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)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

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
Oll 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

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		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 Date Received: 06/28/23 09:39

Sample Depth: 6

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

motifical Strott Goz 15 Totalio Grigatio Compositio (CG)									
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 Diffuorobenzene (Surr)	112		70 130			06/20/22 14:56	06/20/22 11:02	1	

ı	1,4-Difluorobenzene (Surr)	112	70 - 130	06/29/23 14:56	06/30/23 11:
_	<del>-</del> -				

Method: TAL SOP Total BTEX - Tot								
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 80	15 NM - Diesel	Range Ord	nanics (D	RO) (GC)
INICIIIOU. OTTUTO OU	I DI ININI - DIESEI	Ivalige Oil	iailica (D	11011001

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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**Matrix: Solid** 

#### **Client Sample Results**

Client: Ensolum Job ID: 890-4874-1 Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

**Client Sample ID: FS07** 

Date Received: 06/28/23 09:39

Sample Depth: 6

Lab Sample ID: 890-4874-3 Date Collected: 06/27/23 15:15 Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Result Qualifier Analyte RL Unit D Analyzed Dil Fac Prepared <49.9 U 07/02/23 11:21 49.9 07/03/23 01:58 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 49.9 07/02/23 11:21 07/03/23 01:58 <49.9 U mg/Kg C10-C28) mg/Kg 07/02/23 11:21 07/03/23 01:58 OII Range Organics (Over C28-C36) <49.9 U 49.9 %Recovery Dil Fac Qualifier Limits Prepared Analyzed Surrogate 70 - 130 1-Chlorooctane 07/02/23 11:21 07/03/23 01:58 78 o-Terphenyl 77 70 - 130 07/02/23 11:21 07/03/23 01:58 Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Prepared Analyte Result Qualifier RL Unit D Dil Fac Analyzed 100 06/30/23 16:47 20 Chloride 15500 mg/Kg

## **Surrogate Summary**

Client: Ensolum Job ID: 890-4874-1
Project/Site: Poker Lake Unit 183Q SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Rec
		BFB1	DFBZ1	· ·
Lab Sample ID	Client Sample ID	(70-130)	(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-Bromofluoroben	zene (Surr)			
DFBZ = 1,4-Difluorobenz	ene (Surr)			

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
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	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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14

Client: Ensolum Job ID: 890-4874-1 Project/Site: Poker Lake Unit 183Q 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	n: <b>56572</b>	
MB	MB							
esult	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1200	U	0.00200	ma/Ka		06/29/23 10:49	06/29/23 16:56		

Analyte Benzene <0.00200 U mg/Kg 06/29/23 10:49 Toluene <0.00200 U 0.00200 06/29/23 10:49 06/29/23 16:56 mg/Kg Ethylbenzene <0.00200 U 0.00200 mg/Kg 06/29/23 10:49 06/29/23 16:56 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 06/29/23 10:49 06/29/23 16:56 o-Xylene <0.00200 U 0.00200 06/29/23 10:49 06/29/23 16:56 mg/Kg Xylenes, Total <0.00400 U 0.00400 06/29/23 10:49 06/29/23 16:56 mg/Kg

MB MB

Re

Surrogate	%Recovery 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** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 56630

**Analysis Batch: 56626** 

	IVID	IVID						
Analyte	Result	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

MB MB

Surrogate	%Recovery	Qualifier	Limits	Pi	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	06/2	9/23 14:56	06/30/23 03:44	1
1,4-Difluorobenzene (Surr)	85		70 - 130	06/2	9/23 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

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery 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	<b>Control Sample Dup</b>
	Prep Type: Total/NA

Prep Batch: 56630

RPD %Rec **RPD** Limit

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

### QC Sample Results

Client: Ensolum Job ID: 890-4874-1 Project/Site: Poker Lake Unit 183Q 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

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

LCSD LCSD

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

Lab Sample ID: 890-4857-A-6-C MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

**Analysis Batch: 56626** 

Prep Type: Total/NA

Prep Batch: 56630

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
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	

MS MS

Surrogate	%Recovery 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

Allalysis Batch. 00020									ı icp	Dateii.	00000
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

MSD MSD

Surrogate	%Recovery	Quaimer	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

Released to Imaging: 1/17/2024 1:08:35 PM

**Matrix: Solid** 

**Analysis Batch: 56775** 

Gasoline Range Organics

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

Prep Batch: 56778

Result Qualifier Unit Prepared <50.0 U 50.0 mg/Kg 07/02/23 11:21 07/02/23 22:31

(GRO)-C6-C10

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## **QC Sample Results**

Client: Ensolum

Job ID: 890-4874-1

Project/Site: Poker Lake Unit 183Q

SDG: 03C1588243

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

Lab Sample ID: MB 880-56778/1-A	Client Sample ID: Method Blank
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 56775	Prep Batch: 56778

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/02/23 11:21	07/02/23 22:31	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/02/23 11:21	07/02/23 22:31	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
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 880-5677 Matrix: Solid Analysis Batch: 56775	78/2-A						Client	Sample	Prep Ty	ntrol Sample vpe: Total/NA Batch: 56778
			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			1000	956.4		mg/Kg		96	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over			1000	1053		mg/Kg		105	70 - 130	
C10-C28)										
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	108		70 - 130							

Lab Sample ID: LCSD 880-56778/3-A Matrix: Solid				Clier	nt San	ple ID:	Lab Contro	ol Sampl Type: To	
Analysis Batch: 56775								Batch:	
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

70 - 130

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

108

Lab Sample ID: 890-4876-A-2- Matrix: Solid Analysis Batch: 56775	E MS							Client	Sample ID: Matrix Spi Prep Type: Total/ Prep Batch: 567	ΝA
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
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	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	88		70 - 130							
o-Terphenyl	77		70 - 130							

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o-Terphenyl

Client: Ensolum Job ID: 890-4874-1 Project/Site: Poker Lake Unit 183Q

SDG: 03C1588243

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

Lab Sample ID: 890-4876-A-2-F MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 56775** Prep Batch: 56778

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.9	U	998	955.5		mg/Kg		94	70 - 130	1	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U	998	901.8		mg/Kg		88	70 - 130	2	20
C10-C28)											

	MSD	MSD	
Surrogate	%Recovery	Qualifier	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 Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 56693

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Analyte	Result Qual	lifier 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 **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 56693** 

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

Lab Sample ID: LCSD 880-56551/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble** 

Matrix: Solid

Analysis Batch: 56693

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

Lab Sample ID: 890-4873-A-11-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 56693

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	2060		1260	3345		ma/Ka		102	90 - 110	

Lab Sample ID: 890-4873-A-11-C MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

Analysis Batch: 56693

Analysis Daten. 30033											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	2060		1260	3347		mg/Kg		102	90 - 110		20

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**Prep Type: Soluble** 

### **QC Association Summary**

Client: Ensolum Job ID: 890-4874-1
Project/Site: Poker Lake Unit 183Q 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** 

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### **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

SDG: 03C1588243

**Client Sample ID: PH03** 

Client: Ensolum

Date Collected: 06/27/23 09:10 Date Received: 06/28/23 09:39

Project/Site: Poker Lake Unit 183Q

Lab Sample ID: 890-4874-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** 

Date Collected: 06/27/23 10:40 Date Received: 06/28/23 09:39

Lab Sample ID: 890-4874-2

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** 

Date Collected: 06/27/23 15:15 Date Received: 06/28/23 09:39

Lab Sample ID: 890-4874-3 **Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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.

uthority exas		ogram	Identification Number	Expiration Date
		ELAP	T104704400-23-26	06-30-24
,	' '	t the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes fo
the agency does not of	fer certification.			
the agency does not of Analysis Method	fer certification. Prep Method	Matrix	Analyte	
0 ,		Matrix Solid	Analyte Total TPH	

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### **Method Summary**

Client: Ensolum Job ID: 890-4874-1 Project/Site: Poker Lake Unit 183Q

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	De
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

Relinquished by: (Signature)

Received by: (Signature)

Circle Method(s) and Metal(s) to be analyzed

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 TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

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 titce: 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 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

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date 08/25/2020 Rev. 2020.2

Hg: 1631 / 245.1 / 7470 / 7471 Ag SiO<sub>2</sub> Na Sr Tl Sn U V Zn

bbelille ensolum.com

80111

FS07	DH03	Total Containers: Sample Identification	Cooler Custody Seals: Sample Custody Seals:	Samples Received Intact:	PO #:		ber:	Project Name:	Phone:	e ZIP:		Company Name:	Project Manager:	eurofins
<del>-</del>	S 10/27/23 9:10 S 10:40	Corrected Temperature:  Date Time Sampled Sampled	Yes No W/A Correction Factor:  Yes No W/A Temperature Reading:	Temp Blank: Yes No Wet Ice:  Yes No Thermometer ID:	the lab, if re	103.91910	588243 Disout	DOKET LAKE LIGHT 1850 Tum	089 - 854 -0852 Email:	Sbad, NM 9	3122 National Parkithmu	Ensolum, LLC	Ben Belill	INS Environment Testing
	6 6 1	Depth Grab/ # of	LP	Yes No	the lab, if received by 4:30pm	5 day	Rush Pres.	Turn Around	Garrett.	City, State ZIP:	Address:	Company Name:	Bill to: (if different)	Houston, TX Midland, TX (43 EL Paso, TX (9 Hobbs, NM (5
	×× ××	Chla TPH BTE	1	25				ANALYSIS REQUEST	Green @Exxon Mubil-com	Camsbad, NM 88220	3104 E. Greene St	XTO Energy	Garrett Green	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
	7		of Custody	21	T			EST	Deliverables: EDD ADaPT	Reporting: Level II   Level III   PST/UST   TRRP	State of Project:	Program: UST/PST PRP Brownfields RRC	Work Order Comments	Work Order No:
Cost center: 1137901001 API: 30-015-33224	noident #:	NaOH+Ascorbic Acid: SAPC  Sample Comments	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub> Zn Acetate+NaOH: Zn	H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS	2	Cool: Cool MeOH: Me	None: NO DI Water: H <sub>2</sub> O	Preservative Codes	Other:	T/UST TRRP Level IV		nfields RRC Superfund	ments	Page of 1

### **Login Sample Receipt Checklist**

Client: Ensolum

Job Number: 890-4874-1

SDG Number: 03C1588243

Login Number: 4874 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: 890-4874-1

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	N/A	

<6mm (1/4").

**Environment Testing** 

# **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**

Generated 7/6/2023 1:48:57 PM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Client: Ensolum
Project/Site: POKER LAKE UNIT 183 Q
Laboratory Job ID: 890-4886-1
SDG: 03C1588243

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#### **Definitions/Glossary**

Job ID: 890-4886-1 Client: Ensolum Project/Site: POKER LAKE UNIT 183 Q

SDG: 03C1588243

#### **Qualifiers**

**GC VOA** 

Qualifier **Qualifier Description** 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. 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** 

%R

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

CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

Percent Recovery

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

Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) Limit of Detection (DoD/DOE) LOD LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA

Minimum Detectable Concentration (Radiochemistry) MDC 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** 

Presumptive **PRES** QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TFO

**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.

**Eurofins Carlsbad** 7/6/2023

### **Client Sample Results**

Client: Ensolum Job ID: 890-4886-1 Project/Site: POKER LAKE UNIT 183 Q

**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

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 - 1	Total BTEX Cald	culation						
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 - Diese Analyte	•	ics (DRO) ((	GC)	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier	RL		<u>D</u>	Prepared		
	•	Qualifier	•	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared	<b>Analyzed</b> 07/05/23 11:42	Dil Fac
Analyte Total TPH	Result <50.0	Qualifier Unics (DRO)	RL 50.0		_ =	Prepared		1
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte	Result <50.0  sel Range Orga Result	Qualifier Unics (DRO) Qualifier	RL 50.0 (GC)	mg/Kg	<u>D</u>	Prepared	07/05/23 11:42 Analyzed	1
Analyte Total TPH  Method: SW846 8015B NM - Dies	Result <50.0	Qualifier Unics (DRO) Qualifier	RL 50.0	mg/Kg	_ =	<u> </u>	07/05/23 11:42	1
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <50.0  sel Range Orga Result	Qualifier U  nics (DRO) Qualifier U	RL 50.0 (GC)	mg/Kg	_ =	Prepared	07/05/23 11:42 Analyzed	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0  Sel Range Orga Result <50.0	Qualifier U  nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0	mg/Kg  Unit  mg/Kg	_ =	Prepared 07/03/23 12:50	07/05/23 11:42  Analyzed  07/04/23 10:59	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U  nics (DRO) Qualifier U  U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 07/03/23 12:50 07/03/23 12:50	07/05/23 11:42  Analyzed  07/04/23 10:59  07/04/23 10:59	1 Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U  nics (DRO) Qualifier U  U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 07/03/23 12:50 07/03/23 12:50 07/03/23 12:50	07/05/23 11:42  Analyzed 07/04/23 10:59 07/04/23 10:59 07/04/23 10:59	1 Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier U  nics (DRO) Qualifier U  U	RL 50.0  (GC)  RL 50.0  50.0  50.0  Limits	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 07/03/23 12:50 07/03/23 12:50 07/03/23 12:50 Prepared	07/05/23 11:42  Analyzed  07/04/23 10:59  07/04/23 10:59  07/04/23 10:59  Analyzed	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <50.0	Qualifier U  nics (DRO) Qualifier U  U  Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 07/03/23 12:50 07/03/23 12:50 07/03/23 12:50  Prepared 07/03/23 12:50	07/05/23 11:42  Analyzed 07/04/23 10:59  07/04/23 10:59  Analyzed  07/04/23 10:59	1 Dil Fac 1 1
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U  nics (DRO) Qualifier U  U  Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 07/03/23 12:50 07/03/23 12:50 07/03/23 12:50  Prepared 07/03/23 12:50	07/05/23 11:42  Analyzed 07/04/23 10:59  07/04/23 10:59  Analyzed  07/04/23 10:59	Dil Fac  1  1  1  Dil Fac  1

**Client Sample ID: FS08** Lab Sample ID: 890-4886-2

Date Collected: 06/29/23 14:20 Date Received: 06/30/23 11:00

Sample Depth: 6

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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Matrix: Solid

SDG: 03C1588243

Job ID: 890-4886-1

Client: Ensolum Project/Site: POKER LAKE UNIT 183 Q 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)	
Michiga: Circat Collin	Tolutile Organic	Compounds	100,	(Oontiniaca)	

Surrogate	%Recovery Qua	alifier Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	96	70 - 130	07/03/23 10:03	07/03/23 15:02	

Method: TAL SOP Total BTEX - Total BTE	X Calculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396 U	0.00396	ma/Ka			07/05/23 12:49	1

Mathed CMO4C CO4E NM Discal Dance Occasion (DI	201	1001	
Method: SW846 8015 NM - Diesel Range Organics (DI	くしょいし	((36.)	

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

	Mothod: SW046 904ED NM Diocol Dan	go Organico (DBO) (CC)	v
ı	Method: SW846 8015B NM - Diesel Ran	ge 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
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/03/23 12:50	07/04/23 11:21	1
Surrogato	% Pocovory	Qualifier	Limite			Propared	Analyzod	Dil Esc

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 Qualit	fier 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 Date Received: 06/30/23 11:00

Sample Depth: 0 - 6

Method: SW846 8021B -	M-1-4!1- O	0 (00)

Welliou. 344040 002 IB - Volatile C	Jiganic Comp	ounus (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

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	ma/Ka			07/05/23 12:49	1

Method: SW846 8	015 NM - Diesel	Range Ord	ianics (	DRO)	(GC)
INCLINU. OTTOTO	0 10 14141 - DIGGGI	Ivalige Oil	jainus (	יוטוט	1001

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

**Eurofins Carlsbad** 

Matrix: Solid

Job ID: 890-4886-1

Client: Ensolum Project/Site: POKER LAKE UNIT 183 Q SDG: 03C1588243

**Client Sample ID: SW07** Lab Sample ID: 890-4886-3 Matrix: Solid

Date Collected: 06/29/23 13:20 Date Received: 06/30/23 11:00

477 F1

Sample Depth: 0 - 6

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
Oll 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	Chromatograp	hy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

**Client Sample ID: FS09** Lab Sample ID: 890-4886-4 Date Collected: 06/29/23 15:30 Matrix: Solid

4.99

mg/Kg

Date Received: 06/30/23 11:00

Sample Depth: 4

Chloride

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)			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 - T	otal BTEX Cald	culation						
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 - Diese	I Range Organ	ics (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 - Dies	sel Range Orga	nics (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
Oll 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

**Eurofins Carlsbad** 

07/06/23 08:57

7/6/2023

Job ID: 890-4886-1

Matrix: Solid

Client: Ensolum Project/Site: POKER LAKE UNIT 183 Q 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

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Solubl	е					
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 Matrix: Solid

Date Collected: 06/29/23 14:25 Date Received: 06/30/23 11:00

Comple Denthi 0 6

Method: SW846 8021B - Volatile	<b>Organic Comp</b>	ounds (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 16:04	
Toluene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 16:04	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 16:04	
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		07/03/23 10:03	07/03/23 16:04	
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/03/23 10:03	07/03/23 16:04	
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		07/03/23 10:03	07/03/23 16:04	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	108		70 - 130			07/03/23 10:03	07/03/23 16:04	
1,4-Difluorobenzene (Surr)	97		70 - 130			07/03/23 10:03	07/03/23 16:04	
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00404	U	0.00404	mg/Kg			07/05/23 12:49	
Method: SW846 8015 NM - Diese	l Pango Organ	ice (DPO) ((	3C)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.9	U	49.9	mg/Kg		<u> </u>	07/05/23 11:42	
Method: SW846 8015B NM - Dies	ol Pango Orga	nice (DPO)	(CC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		07/03/23 12:50	07/05/23 07:23	
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		07/03/23 12:50	07/05/23 07:23	
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/03/23 12:50	07/05/23 07:23	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	133	S1+	70 - 130			07/03/23 12:50	07/05/23 07:23	
o-Terphenyl	117		70 - 130			07/03/23 12:50	07/05/23 07:23	
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e					
					_			
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa

Matrix: Solid

Lab Sample ID: 890-4886-6

Job ID: 890-4886-1

Client: Ensolum Project/Site: POKER LAKE UNIT 183 Q SDG: 03C1588243

**Client Sample ID: FS10** 

Date Collected: 06/29/23 15:40 Date Received: 06/30/23 11:00

Sample Depth: 4

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 - 1	Total BTEX Cald	culation						
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 - Diese	al Pango Organ	ics (DRO) ((	ec)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	11						
-	·40.0	U	49.9	mg/Kg			07/05/23 11:42	1
Method: SW846 8015B NM - Dies				mg/Kg			07/05/23 11:42	1
- -	sel Range Orga			mg/Kg <b>Unit</b>	D	Prepared	07/05/23 11:42  Analyzed	1 Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	sel Range Orga	nics (DRO) Qualifier	(GC)		<u>D</u>	Prepared 07/03/23 12:50		Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	sel Range Orga Result	nics (DRO) Qualifier	(GC)	Unit	<u> </u>		Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	sel Range Orga Result <49.9	nics (DRO) Qualifier U	(GC) RL 49.9	Unit mg/Kg	<u>D</u>	07/03/23 12:50	Analyzed 07/05/23 07:54	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga Result <49.9 <49.9	nics (DRO) Qualifier U	(GC)  RL  49.9	Unit mg/Kg mg/Kg	<u> </u>	07/03/23 12:50 07/03/23 12:50	Analyzed 07/05/23 07:54 07/05/23 07:54	<b>Dil Fac</b> 1 1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	sel Range Orga Result <49.9 <49.9 <49.9  %Recovery	nics (DRO) Qualifier U U Qualifier	(GC)  RL 49.9  49.9  49.9	Unit mg/Kg mg/Kg	<u> </u>	07/03/23 12:50 07/03/23 12:50 07/03/23 12:50	Analyzed 07/05/23 07:54 07/05/23 07:54 07/05/23 07:54	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	sel Range Orga Result <49.9 <49.9 <49.9  %Recovery	nics (DRO) Qualifier U U Qualifier	(GC)  RL 49.9  49.9  49.9  Limits	Unit mg/Kg mg/Kg	<u>D</u>	07/03/23 12:50 07/03/23 12:50 07/03/23 12:50 <b>Prepared</b>	Analyzed 07/05/23 07:54 07/05/23 07:54 07/05/23 07:54 Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	sel Range Orga           Result         <49.9	DRO) Qualifier U U Qualifier S1+	(GC)  RL 49.9  49.9  49.9  Limits 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	07/03/23 12:50 07/03/23 12:50 07/03/23 12:50 <b>Prepared</b> 07/03/23 12:50	Analyzed 07/05/23 07:54 07/05/23 07:54 07/05/23 07:54  Analyzed 07/05/23 07:54	
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	sel Range Orga           Result           <49.9	DRO) Qualifier U U Qualifier S1+	(GC)  RL 49.9  49.9  49.9  Limits 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	07/03/23 12:50 07/03/23 12:50 07/03/23 12:50 <b>Prepared</b> 07/03/23 12:50	Analyzed 07/05/23 07:54 07/05/23 07:54 07/05/23 07:54  Analyzed 07/05/23 07:54	Dil Fac

**Client Sample ID: SW09** 

Date Collected: 06/29/23 15:35 Date Received: 06/30/23 11:00

Sample Depth: 0 - 4

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	

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Lab Sample ID: 890-4886-7

**Matrix: Solid** 

Matrix: Solid

### **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
Date Received: 06/30/23 11:00

178

Sample Depth: 0 - 4

Chloride

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 - T	otal BTEX Cald	culation						
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 - Diese	I Range Organ	ics (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
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
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	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/05/23 08:16	1
C10-C28)								
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/03/23 12:50	07/05/23 08:16	,
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	Chromatogran	hv - Solubl	e					
Michiga. El A 000.0 - Allions, lon	o i ii o i i i a co gi a p							

4.95

mg/Kg

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07/06/23 09:44

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## **Surrogate Summary**

Client: Ensolum Job ID: 890-4886-1 Project/Site: POKER LAKE UNIT 183 Q SDG: 03C1588243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-4886-1	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	
LCOD 000-30033/2-A		98	107	

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

DFBZ = 1,4-Difluorobenzene (Surr)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(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	
390-4887-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+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

# **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

	MB	MB						
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 14:13	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

MB MB

Surrogate	%Recovery	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 Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 56822

Prep Type: Total/NA Prep Batch: 56855

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery Qua	alifier 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

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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	

LCSD LCSD

Surrogate	%Recovery Q	ualifier	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

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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

Job ID: 890-4886-1 Client: Ensolum Project/Site: POKER LAKE UNIT 183 Q 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

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
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	

MS MS

Surrogate	%Recovery C	Qualifier	Limits
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 RPD

Sample Sample Spike MSD MSD Result Qualifier Result Qualifier %Rec RPD Limit Analyte babbA Unit Limits Benzene <0.00200 U 0.0996 0.1288 mg/Kg 129 70 - 130 7 35 Toluene <0.00200 UF1 0.0996 0.1423 F1 mg/Kg 143 70 - 130 10 35 Ethylbenzene <0.00200 U 0.0996 0.1164 117 70 - 130 5 35 mg/Kg <0.00399 U 0.199 70 - 130 35 m-Xylene & p-Xylene 0.2354 mg/Kg 118 <0.00200 U 0.0996 70 - 130 o-Xylene 0.1116 mg/Kg 112

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
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

MB MB Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte Gasoline Range Organics 50.0 07/03/23 12:50 07/03/23 20:16 <50.0 U mg/Kg (GRO)-C6-C10 07/03/23 12:50 07/03/23 20:16 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 07/03/23 12:50 07/03/23 20:16 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
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

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**Matrix: Solid** 

Analysis Batch: 56814

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

Prep Batch: 56907

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	921.8		mg/Kg		92	70 - 130	 
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	868.7		mg/Kg		87	70 - 130	
C10-C28)								

Surrogate

o-Terphenyl

o-Terphenyl

Job ID: 890-4886-1 Client: Ensolum Project/Site: POKER LAKE UNIT 183 Q SDG: 03C1588243

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

%Recovery Qualifier

Lab Sample ID: LCS 880-56907/2-A **Client Sample ID: Lab Control Sample** 

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

Analysis Batch: 56814 Prep Batch: 56907 LCS LCS

Limits

1-Chlorooctane 88 70 - 130 o-Terphenyl 80 70 - 130

Lab Sample ID: LCSD 880-56907/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 56814 Prep Batch: 56907 RPD

Spike LCSD LCSD %Rec Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 875.8 88 70 - 1305 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 838.2 84 mg/Kg 70 - 13020 C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 93 70 - 130 1-Chlorooctane 83 70 - 130 o-Terphenyl

Lab Sample ID: 890-4887-A-3-D MS Client Sample ID: Matrix Spike

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

**Analysis Batch: 56814** Prep Batch: 56907 Sample Sample MS MS Spike

Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics <49.9 U 1000 1108 mg/Kg 107 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 963 F1 1000 1600 F1 mg/Kg 64 70 - 130

C10-C28)

70 - 130

70 - 130

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 107

87

100

Lab Sample ID: 890-4887-A-3-E MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 56814 Prep Batch: 56907

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit

U 997 939.5 91 Gasoline Range Organics <49.9 mg/Kg 70 - 130 16 20 (GRO)-C6-C10 Diesel Range Organics (Over 963 F1 997 1875 mg/Kg 91 70 - 130 16 20 C10-C28)

MSD MSD Qualifier Surrogate %Recovery Limits 1-Chlorooctane 126 70 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Client Sample ID: SW07** 

Client Sample ID: SW07

**Prep Type: Soluble** 

**Prep Type: Soluble** 

# QC Sample Results

Client: Ensolum Job ID: 890-4886-1 Project/Site: POKER LAKE UNIT 183 Q SDG: 03C1588243

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-56898/1-A

**Matrix: Solid** 

Analysis Batch: 57017

мв мв

Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 07/05/23 19:29

Lab Sample ID: LCS 880-56898/2-A

**Matrix: Solid** 

**Analysis Batch: 57017** 

Spike LCS LCS %Rec Added %Rec Analyte Result Qualifier Unit D Limits Chloride 250 240.1 mg/Kg 96 90 - 110

Lab Sample ID: LCSD 880-56898/3-A

**Matrix: Solid** 

Analysis Batch: 57017

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 240.0 mg/Kg 90 - 110

Lab Sample ID: 890-4886-3 MS

**Matrix: Solid** 

Analysis Batch: 57017

Spike MS MS Sample Sample %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 661.2 F1 Chloride 477 F1 250 90 - 110 mg/Kg

Lab Sample ID: 890-4886-3 MSD

**Matrix: Solid** 

Analysis Batch: 57017

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 477 F1 250 666.8 F1 mg/Kg 76 90 - 110 20

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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Client: Ensolum Job ID: 890-4886-1
Project/Site: POKER LAKE UNIT 183 Q 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 Batcl
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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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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Soluble

Analysis

Released to Imaging: 1/17/2024 1:08:35 PM

300.0

Client: Ensolum

Job ID: 890-4886-1 Project/Site: POKER LAKE UNIT 183 Q 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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 5.05 g 5 mL 56855 07/03/23 10:03 EL EET MID Total/NA 8021B 5 mL 07/03/23 15:02 **EET MID** Analysis 1 5 mL 56822 SM Total/NA Total BTEX 56999 07/05/23 12:49 SM Analysis **EET MID** 1 Total/NA Analysis 8015 NM 56974 07/05/23 11:42 SM **EET MID** Total/NA 56907 Prep 8015NM Prep 10.00 g 10 mL 07/03/23 12:50 SM EET MID Total/NA Analysis 8015B NM 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** 

Client Sample ID: SW07 Lab Sample ID: 890-4886-3

50 mL

50 mL

57017

07/06/23 08:51

СН

Date Collected: 06/29/23 13:20 **Matrix: Solid** Date Received: 06/30/23 11:00

10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Lab Sample ID: 890-4886-4 **Client Sample ID: FS09** 

Date Collected: 06/29/23 15:30 **Matrix: Solid** Date Received: 06/30/23 11:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

**Eurofins Carlsbad** 

**EET MID** 

Project/Site: POKER LAKE UNIT 183 Q

Job ID: 890-4886-1

SDG: 03C1588243

**Client Sample ID: FS09** 

Client: Ensolum

Date Collected: 06/29/23 15:30 Date Received: 06/30/23 11:00

Lab Sample ID: 890-4886-4

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 MIC
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 Date Received: 06/30/23 11:00

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Date Received: 06/30/23 11:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** 

Released to Imaging: 1/17/2024 1:08:35 PM

**Matrix: Solid** 

# **Lab Chronicle**

Client: Ensolum Job ID: 890-4886-1 Project/Site: POKER LAKE UNIT 183 Q 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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

# **Accreditation/Certification Summary**

Client: Ensolum Job ID: 890-4886-1 Project/Site: POKER LAKE UNIT 183 Q SDG: 03C1588243

# **Laboratory: Eurofins Midland**

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

Authority Texas		ogram	Identification Number	<b>Expiration Date</b>
		ELAP	T104704400-23-26	06-30-24
The following analytes	are included in this report, bu	it the laboratory is not certific	ed by the governing authority. This list ma	v include analytes for
the agency does not of	fer certification.	,	, g	ly molado analytoo for
the agency does not of Analysis Method	fer certification.  Prep Method	Matrix	Analyte	y molado analytoo for t
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# **Method Summary**

Client: Ensolum Job ID: 890-4886-1 Project/Site: POKER LAKE UNIT 183 Q 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

eurofins :

Environment Testing
Xenco

Chain of Custody

EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
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Work Order No:

Manager   OCH   OCH									
Program: UST/PST   PRP   Brow State of Project:  Reporting: Level II   Level III   P. Deliverables: EDD   ADap    ST  Custody  Custody  Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr   Ag Ti U   Hg: 1631 / 245.1.1    Ag Ti U   Hg: 1631 / 245.1.1    And the control of the contro			4			1			11000
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Program: UST/PST   PRP   Brow State of Project:  Reporting: Level II   Level III   P: Deliverables: EDD   ADaP  ST  Custody  Custody  Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ag Tl U Hg: 1631 / 245.1 / and conditions  and conditions		y negotiated.	nalyzed. These terms will be enforced unless previous	urofins Xenco, but not a	ach sample submitted to E	oject and a charge of \$5 for ea	l be applied to each pr	um charge of \$85.00 wil	rofins Xenco. A minin
Program: UST/PST   PRP   Brow State of Project:  Reporting: Level II   Level III   P. Deliverables: EDD   ADaP  ST  Custody  Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ag Tl U Hg: 1631/245.1.		ontrol	nd subcontractors. It assigns standard terms and con It if such losses are due to circumstances beyond the co	fins Xenco, Its affiliates a ses incurred by the clien	m client company to Euro lity for any losses or expen	ites a valid purchase order fro all not assume any responsibi	ent of samples constitutions of samples and sh	cument and relinquishm will be liable only for the	e: Signature of this do
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TWANDER PORT SELLE COMPANY NAME: STATE FOR STATE OF PROGRAM: UST/PST PRP Brownfields RRC CAPUS DAD, NM 98220 City, State ZIP: CAPUS DAD, NM 98220 City, State ZIP: CAPUS DAD, NM 98220 Conting: Capus	Sample Comments		171	CY BT	Grab/ Comp	Time Sampled		tification	Sample Ider
Training: PORP Lake Unit 1830  Training: PORP Lake Unit 1830  Training: PORP Lake Unit 1830  Training: Port Reporting: Level III   Level III   Port Port   Preservative Content None: No District N	NaOH+Ascorbic Acid: SAPC	4		EX	1	-	Correc		Total Containers:
Trianger:   DEN	Zn Acetate+NaOH: Zn			ri	3.8		N/A	Yes	nple Custody Sea
Thanager: PORD Wolf   Bill to: (if different)   CAYYEAT   CYCOM   Company Name:   FNSD  UMM, LLC   Company Name:   XTO FNCAU   FNCAU   Program: UST/PST   PRP   Brownfields   RRC   Tata ezip:   CAMS DAD, NM 98220   City, State zip:   CAMS DAD, NM 98220   City, State zip:   CAY IS DAD, NM 98220   City, State zip:   CAY IS DAD, NM 98220   State of Project:   Reporting: Level III   Level IIII   PST/UST   TRRP   Program: UST/PST   PRP   Brownfields   RRC   TRRP   Other:   CAY IS DAD, NM 98220   Program: UST/PST   PRP   Brownfields   RRC   Other:   Post   Program: UST/PST   PRP   Brownfields   RRC   Other:   Post   Program: UST/PST   PRP   Brownfields   RRC   Other:   Program: UST/PST   PRP	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ; NaSO <sub>3</sub>			de	į.		NA	Yes	oler Custody Seal
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## Work Order Comments  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  ## State of Project:  ## State of Project:  ## Program: UST/PST   PRP   Brownfields   RRC    ## State of Project:  #	H <sub>3</sub> PO <sub>4</sub> : HP				No	Wet Ice:	(Yes)		SAMPLE RECEIPT
FNSDLUM, LLC   Company Name:   XTO FNCYQU   State of Project:   State of Project:   Cambany Name:   SIOH F. Gycene State of Project:   State of			-						PO #:
FN/01UM, LLC   Company Name:   XTO FNCYQU   State of Project:   State of Project:   CAMUDADA, NAM 08220   City, State ZIP:   CAMUDADA, NAM 0852   Email:   CAMUCH COVERN & FXX0M MOBIL COM   Deliverables:   EDD   ADAPT   Other:					received by		$\supset$	Mariah	Sampler's Name:
FN/01 Um   LLC   Company Name:   XTO FNEYQU   Program:   UST/PST   PRP   Brownfields   RRC					daus	Due Date:	103	.2408	ject Location:
Bill to: (if different)   CALYPETT (JYFET)   Work Order Comments						_	38243	bour	Project Number:
FNSDIUM, LLC Company Name: XTO ENEXQU Program: UST/PST PRP Brownfields RRC 3122 Nathonal Payks Hwy Address: 3104 F. Gyeene, St Cambad, NM 98220 City, State ZIP: Cayl Sbad, NM 98220 City, State ZIP: Cayl Sbad, NM 98220 Program: UST/PST PRP Brownfields RRC State of Project: Reporting: Level III Level III PST/UST RRP Other: ORG - 954 - 0852 Email: Cayr Ctt - Gyeen & Fxxon Mobil - Com	Preservative Codes		ANALYSIS REQUEST				-	_	Project Name:
FMSDIUM, LLC Company Name: XTO FMC ST Program: UST/PST PRP Brownfields 3122 Nathonal Payks Hwy Address: 3104 F. Greene St State of Project: State of Project: Carlsbad, NM 88220 City, State ZIP: Carlsbad, NM 88220 Reporting: Level III Level III PST/UST		EDD [		70		Email:			Phone:
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Carlsbad NM 88220

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# Chain of Custody Record

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Environment Testing

SW07 (890-4886-3) SW08 (890-4886-5) SW06 (890-4886-1) State, Zip: TX, 79701 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 aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC aboratory 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. SW09 (890-4886-7) FS10 (890-4886-6) FS08 (890-4886-2) Empty Kit Relinquished by Possible Hazard Identification FS09 (890-4886-4) Sample Identification - Client ID (Lab ID) Shipping/Receiving Client Information (Sub Contract Lab) Phone 575-988-3199 Fax 575-988-3199 Deliverable Requested 1 II, III IV Other (specify) POKER LAKE UNIT 183 Q 132-704-5440(Tel) Eurofins Environment Testing South Centr elinquished by /lidland 1211 W Florida Ave elinquished by Custody Seals Intact: inquished by: Ύes S S S S Custody Seal No Date/Time WO# Date/Time Primary Deliverable Rank Due Date Requested 7/6/2023 39000093 roject #: TAT Requested (days) Sample Date 6/29/23 6/29/23 6/29/23 6/29/23 6/29/23 6/29/23 6/29/23 Mountain 13 20 Mountain 14 20 Date Mountain 14 25 Mountain 15 30 Mountain 15 35 Mountain 15 40 Mountain Sample 10 55 (C=comp, Sample G=grab) Preservation Code: Type Company Company Matrix Solid Solid Solid Solid Solid Solid Solid E-Mail Kramer Jessica Jessica Kramer@et.eurofinsus com NELAP - Texas Accreditations Required (See note) Special Instructions/QC Requirements Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Perform MS/MSD (Yes or No) Received by Cooler Temperature(s) °C and Other Remarks × × × × × × × 8016MOD\_NM/8015NM\_S\_Prep (MOD) Full TPH × × × × × 8015MOD\_Calc × × × × × × × × 300\_ORGFM\_28D/DI\_LEACH Chloride × × × × × × 8021B/5035FP\_Calc (MOD) BTEX × Analysis Requested × × × × × × × Total BTEX GCV State of Origin: New Mexico amer Tracking No(s) Method of Shipment Date/Time Date/Time 4 -E 4 Total Number of containers J DI Water K-EDTA L EDA A HCL
B. NAOH
C. Zn Acetate
D. Nitric Acid
E. NaHSO4
F. MeOH
G. Amchlor
H. Ascorbic Acid COC No: 890-1351 1 Preservation Codes Page 1 of 1 390-4886-1 U Acetone
V - MCAA
W pH 4-5
Y Trizma T - TSP Dodecahydrate Ver: 06/08/2021 Company Company None
As NaO2
Na2O4S
Na2SO3
Na2SO3
Na2SO4 Months other (specify)

# **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-4886-1 SDG Number: 03C1588243

Login Number: 4886 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	

e 100 bj 170

# **Login Sample Receipt Checklist**

Client: Ensolum

Job Number: 890-4886-1 SDG Number: 03C1588243

Login Number: 4886 **List Source: Eurofins Midland** List Number: 2

List Creation: 07/03/23 08:26 AM

Creator: Teel, Brianna

<6mm (1/4").

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	True	

**Eurofins Carlsbad** 

Released to Imaging: 1/17/2024 1:08:35 PM

**Environment Testing** 

# **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 <u>Jessica.Kramer@et.eurofinsus.com</u> (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**

Job ID: 890-4959-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1558243

#### **Qualifiers**

**GC VOA** Qualifier

F1 MS and/or MSD recovery exceeds control limits.

**Qualifier Description** 

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. 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 Contains No Free Liquid **CNF** 

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac Dilution Factor

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) Limit of Quantitation (DoD/DOE) LOQ

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL ML Minimum Level (Dioxin) MPN Most Probable Number MOI 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

**Practical Quantitation Limit PQL** 

**PRES** Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER** 

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ** 

**TNTC** Too Numerous To Count

#### Case Narrative

Client: Ensolum

Job ID: 890-4959-1 Project/Site: Poker Lake Unit 183Q 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: Ensolum Job ID: 890-4959-1 Project/Site: Poker Lake Unit 183Q SDG: 03C1558243

**Client Sample ID: SW10** Lab Sample ID: 890-4959-1

Date Collected: 07/18/23 10:00 Date Received: 07/18/23 12:47

Sample Depth: 0 - 4

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 Cald	culation						
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
A I								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<u> </u>		Qualifier U	<b>RL</b> 49.8	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/28/23 12:21	Dil Fac
Total TPH					<u>D</u>	Prepared		
Total TPH	<49.8	U	49.8		<u>D</u>	Prepared		
Total TPH  Method: SW846 8015B NM - Die: Analyte	<49.8 sel Range Orga Result	nics (DRO) Qualifier	49.8 (GC)	mg/Kg	<u>D</u>	Prepared	07/28/23 12:21  Analyzed	1
Total TPH  Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics	<49.8 sel Range Orga	nics (DRO) Qualifier	49.8 (GC)	mg/Kg			07/28/23 12:21	1 Dil Fac
Total TPH  Method: SW846 8015B NM - Die: Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<49.8 sel Range Orga Result	nics (DRO) Qualifier	49.8 (GC)	mg/Kg		Prepared	07/28/23 12:21  Analyzed	1 Dil Fac
Total TPH  Method: SW846 8015B NM - Die: Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.8 sel Range Orga Result <49.8 <49.8	Unics (DRO) Qualifier U	49.8  (GC)  RL  49.8  49.8	mg/Kg  Unit  mg/Kg		Prepared 07/24/23 16:45 07/24/23 16:45	07/28/23 12:21  Analyzed  07/27/23 19:07  07/27/23 19:07	Dil Fac
: Method: SW846 8015B NM - Die	<49.8 sel Range Orga Result <49.8	Unics (DRO) Qualifier U	49.8 (GC) RL 49.8	mg/Kg  Unit  mg/Kg		Prepared 07/24/23 16:45	07/28/23 12:21  Analyzed  07/27/23 19:07	Dil Fac
Total TPH  Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	<49.8 sel Range Orga Result <49.8 <49.8 <49.8 %Recovery	Unics (DRO) Qualifier U	49.8  (GC)  RL 49.8  49.8  49.8  Limits	mg/Kg  Unit  mg/Kg		Prepared 07/24/23 16:45 07/24/23 16:45 07/24/23 16:45 Prepared	07/28/23 12:21  Analyzed  07/27/23 19:07  07/27/23 19:07  07/27/23 19:07  Analyzed	1 Dil Fac
Total TPH  Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	<49.8 sel Range Orga Result <49.8 <49.8 <49.8 %Recovery 98	Unics (DRO) Qualifier U	49.8  (GC)  RL 49.8  49.8  49.8  49.8  Limits 70 - 130	mg/Kg  Unit  mg/Kg		Prepared 07/24/23 16:45 07/24/23 16:45 07/24/23 16:45  Prepared 07/24/23 16:45	07/28/23 12:21  Analyzed 07/27/23 19:07  07/27/23 19:07  Analyzed  07/27/23 19:07	Dil Face 1 1 1 Dil Face
Total TPH  Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	<49.8 sel Range Orga Result <49.8 <49.8 <49.8 %Recovery	Unics (DRO) Qualifier U	49.8  (GC)  RL 49.8  49.8  49.8  Limits	mg/Kg  Unit  mg/Kg		Prepared 07/24/23 16:45 07/24/23 16:45 07/24/23 16:45 Prepared	07/28/23 12:21  Analyzed  07/27/23 19:07  07/27/23 19:07  07/27/23 19:07  Analyzed	Dil Fac
Total TPH  Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	<49.8 sel Range Orga Result <49.8 <49.8 <49.8 %Recovery 98 121 n Chromatograp	Unics (DRO) Qualifier U U Qualifier	49.8  (GC)  RL 49.8  49.8  49.8  49.8  Limits  70 - 130  70 - 130	mg/Kg  Unit  mg/Kg		Prepared 07/24/23 16:45 07/24/23 16:45 07/24/23 16:45  Prepared 07/24/23 16:45	07/28/23 12:21  Analyzed 07/27/23 19:07  07/27/23 19:07  Analyzed  07/27/23 19:07	Dil Fac
Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	<49.8 sel Range Orga Result <49.8 <49.8 <49.8 %Recovery 98 121 n Chromatograp	U nics (DRO) Qualifier U U Qualifier	49.8  (GC)  RL 49.8  49.8  49.8  49.8  Limits  70 - 130  70 - 130	mg/Kg  Unit  mg/Kg		Prepared 07/24/23 16:45 07/24/23 16:45 07/24/23 16:45  Prepared 07/24/23 16:45	07/28/23 12:21  Analyzed 07/27/23 19:07  07/27/23 19:07  Analyzed  07/27/23 19:07	Dil Fac

**Client Sample ID: SW11** Lab Sample ID: 890-4959-2

Date Collected: 07/18/23 10:35 Date Received: 07/18/23 12:47

Sample Depth: 0 - 4

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

**Eurofins Carlsbad** 

**Matrix: Solid** 

# **Client Sample Results**

Client: Ensolum Job ID: 890-4959-1
Project/Site: Poker Lake Unit 183Q 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

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 - T	otal BTEX Cald	culation						
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 - Diese	l Range Organ	ics (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 - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.4	U	50.4	mg/Kg		07/24/23 16:45	07/27/23 19:29	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.4	U	50.4	mg/Kg		07/24/23 16:45	07/27/23 19:29	1
C10-C28)								
Oll 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	

Method: EPA 300.0 - Anions, Ion C	hromatography - Soluble						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.3	5.05	mg/Kg			07/20/23 21:13	1

70 - 130

103

**Eurofins Carlsbad** 

o-Terphenyl

2

<u></u> 3

5

0

10

12

13

14

07/24/23 16:45 07/27/23 19:29

# **Surrogate Summary**

Client: Ensolum Job ID: 890-4959-1 Project/Site: Poker Lake Unit 183Q SDG: 03C1558243

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
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	

DFBZ = 1,4-Difluorobenzene (Surr) Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		1001	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-4959-1	SW10	98	121	
390-4959-2	SW11	84	103	
890-4967-A-3-D MS	Matrix Spike	88	98	
890-4967-A-3-E MSD	Matrix Spike Duplicate	100	110	
CS 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

Client: Ensolum Job ID: 890-4959-1 Project/Site: Poker Lake Unit 183Q 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

	MB	MB						
Analyte	Result	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

MB MB

Surrogate	%Recovery	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

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

Prep Batch: 58153

analysis Batch:	58267
-----------------	-------

мв мв

Analyte	Result	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

MB MB

Surrogate	%Recovery	Qualifier	Limits	Pre	pared	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** 

o-Xylene

**Analysis Batch: 58267** 

Client Sample ID: Lab Control Sample

70 - 130

Prep Type: Total/NA Prep Batch: 58153

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1275 mg/Kg 127 70 - 130 Toluene 0.100 0.1089 mg/Kg 109 70 - 130 0.100 Ethylbenzene 0.1194 mg/Kg 119 70 - 130 0.200 70 - 130 m-Xylene & p-Xylene 0.2473 mg/Kg 124

0.100

0.1220

LCS LCS

Surrogate	%Recovery 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

122

mg/Kg

Prep Type: Total/NA

Prep Batch: 58153

	<b>Spike</b>	LCSD LCSD				%Rec		RPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1125	mg/Kg		113	70 - 130	12	35	

# QC Sample Results

Client: Ensolum Job ID: 890-4959-1 Project/Site: Poker Lake Unit 183Q 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

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
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

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
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

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
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	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	105	70 - 130
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

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
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

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	67	S1-	70 - 130
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

мв мв Result Qualifier Unit Prepared <50.0 U 50.0 mg/Kg 07/24/23 10:38 07/27/23 08:53 Gasoline Range Organics

(GRO)-C6-C10

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 58344

Client: Ensolum Job ID: 890-4959-1 SDG: 03C1558243 Project/Site: Poker Lake Unit 183Q

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

Lab Sample ID: MB 880-58344/1-A **Matrix: Solid** 

Analysis Batch: 58605

_	MB	MB					•	
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		07/24/23 10:38	07/27/23 08:53	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/24/23 10:38	07/27/23 08:53	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
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 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Solid Analysis Batch: 58605** 

Analysis Batch: 58605							Prep	Batch: 58344
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	864.9		mg/Kg		86	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	948.4		mg/Kg		95	70 - 130	
C10-C28)								

LCS LCS

ICED ICED

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: LCSD 880-58344/3-A

**Matrix: Solid** 

Analysis Batch: 58605						Prep Batch: 58344							
	Spike	LCSD	LCSD				%Rec		RPD				
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit				
Gasoline Range Organics	1000	811.0		mg/Kg		81	70 - 130	6	20				
(GRO)-C6-C10													
Diesel Range Organics (Over	1000	885.4		mg/Kg		89	70 - 130	7	20				
0.10, 0.00)													

C10-C28)

	LCSD	LUSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	112		70 - 130

Analysis Batch: 58605

Lab Sample ID: 890-4967-A-3-D MS	Client Sample ID: Matrix Spike
Matrix: Solid	Prep Type: Total/NA

Prep Batch: 58344

Prep Type: Total/NA

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.3	U	997	1279		mg/Kg		125	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	51.4		997	878.8		mg/Kg		83	70 - 130	
C10 C28)										

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-4967-A-3-E MSD

Job ID: 890-4959-1 Client: Ensolum Project/Site: Poker Lake Unit 183Q SDG: 03C1558243

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

Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 58605 Prep Batch: 58344

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<50.3	U	997	1304		mg/Kg		128	70 - 130	2	20
(GRO)-C6-C10											
Diesel Range Organics (Over	51.4		997	996.1		mg/Kg		95	70 - 130	13	20

C10-C28)

MSD MSD %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 100 o-Terphenyl 110 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-58027/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 58062** 

MB MB Result Qualifier RL Unit Analyte Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 07/19/23 16:29

Lab Sample ID: LCS 880-58027/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 58062** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	240.6		mg/Kg		96	90 - 110	

Lab Sample ID: LCSD 880-58027/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 58062

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	240.4		mg/Kg		96	90 - 110	0	20	

Lab Sample ID: 880-30939-A-9-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 58062** 

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	11900		4970	16760		mg/Kg	_	98	90 - 110	

Lab Sample ID: 880-30939-A-9-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble** 

**Matrix: Solid** Analysis Batch: 58062

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Qualifier Analyte Result %Rec Limits RPD Limit Unit D 4970 Chloride 11900 16790 90 - 110 mg/Kg

# QC Sample Results

Client: Ensolum Job ID: 890-4959-1 Project/Site: Poker Lake Unit 183Q

SDG: 03C1558243

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-58013/1-A Client Sample ID: Method Blank **Matrix: Solid** 

MD MD

**Prep Type: Soluble** 

Analysis Batch: 58159

	IVID	IVID						
Analyte	Result	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 **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 58159

	<b>Spike</b>	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	250	242.4		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-58013/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 58159

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	241.7		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-4957-A-11-B MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 58159

_	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	135		249	361.0		mg/Kg		91	90 - 110	 

Lab Sample ID: 890-4957-A-11-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 58159

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	135		249	363.1		mg/Kg		92	90 - 110	1	20

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** 

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Client: Ensolum Job ID: 890-4959-1
Project/Site: Poker Lake Unit 183Q 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	

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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

**Client Sample ID: SW10** 

Client: Ensolum

Job ID: 890-4959-1

Project/Site: Poker Lake Unit 183Q SDG: 03C1558243

Lab Sample ID: 890-4959-1

Date Collected: 07/18/23 10:00 Matrix: Solid Date Received: 07/18/23 12:47

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Date Received: 07/18/23 12:47

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 MIC
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 MIC
Soluble	Leach	DI Leach			4.95 g	50 mL	58013	07/19/23 10:14	KS	EET MIC
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 Job ID: 890-4959-1 Project/Site: Poker Lake Unit 183Q SDG: 03C1558243

#### **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-23-26	06-30-24
,	are included in this report, bu	ut the laboratory is not certific	ed by the governing authority. This list ma	ay include analytes fo
the agency does not of	fer certification.			
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	
0 ,		Matrix Solid	Analyte Total TPH	

# **Method Summary**

Client: Ensolum Job ID: 890-4959-1
Project/Site: Poker Lake Unit 183Q 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

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# **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

Relinquished by: (Signature)

Received by: (Signature)

18-93/34F Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020.2

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eurofins Xenco **Environment Testing** 

# Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

Project Manager: Ben Belill	Belill			Bill to: (if different)	nt)	Garret	Garrett Green			NON	Work Order Comments
Company Name: Ensolum	m			Company Name	le:	XTO Energy	nergy		Pro	gram: UST/PST 🗌 PRF	Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
	3122 National Parks Hwy	łwy		Address:		3104 E	3104 E. Green St	St.	Stat	State of Project:	
e ZIP:	Carlsbad, NM 88220			City, State ZIP		Carlsb	Carlsbad, NM 88220	88220	Rep	orting: Level II Level	Reporting: Level III D Level III PST/UST TRRP Level IV
	303-887-2946		Email:	Email: Garrett.Green@ExxonMobil.com	n@Exx	onMok	oil.com		Deli	Deliverables: EDD	ADaPT Other:
Project Name:	Poker Lake Unit 183Q	1830	Turn	Turn Around					ANALYSIS REQUEST	4	Preservative Codes
Project Number:	03C1558243	3	Routine	Rush	Pres. Code						None: NO DI Water: H <sub>2</sub> O
Project Location:			Due Date:								Cool: Cool MeOH: Me
Sampler's Name:	Connor Whitman	man	TAT starts the	TAT starts the day received by							HCL: HC HNO3: HN
			the lab, if rece	the lab, if received by 4:30pm	-						H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na
SAMPLE RECEIPT	Temp Blank:	Gres No	Wet ice:	Yes No	nete	.0)					H₃PO₄: HP
Samples Received Intact:	Yes No	Thermometer ID:	D:	\$(90 \frac{1}{2}(0.00)	aran	3000					NaHSO <sub>4</sub> : NABIS
	Yes No (NIA	Correction Factor:	tor:		Pa	PA:					Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>
Sample Custody Seals:	Yes No NIA	Temperature Reading:	eading:	6.0		S (E		)	890-4959 Chain of Custody	stody	Zn Acetate+NaUn. Zn
Can Containere.		Date Time	Time			ORID	(801	X (80	_		name of the state
Sample Identification	on Matrix	Date Sampled	Time Sampled	Depth Comp	Comp Cont	сньо	TPH (	BTEX			Sample Comments
SW10	S	7/18/2023	10:00	0-4' Comp	p 1	×	×	×			Incident ID:
SW11	S	7/18/2023	10:35	0-4' Comp	p 1	×	×	×			nAPP2315133557
											Cost Center:
											1137901001
											AFE:
				1							
							$\Box$	2			
							1				
Total 200.7 / 6010 200.8 / 6020:	200.8 / 6020:	8RC	8RCRA 13PPM	/ Texas 11	AI SE	Al Sb As Ba	Ba Be	B Cd Ca	RA 13PPM Texas 11 AISb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg N	Mg Mn Mo Ni K Se Ag Ni Se Ag TI U Ha	<sub>.</sub> g SiO <sub>2</sub> Na Sr Tl Sn ∪ V Zn Hg: 1631 / 245.1 / 7470 / 7471
THE PARTY OF THE P	W-11-					50	000	000		-	3

**Eurofins Carlsbad** 

1089 N Canal St.

Carlsbad, NM 88220 Phone: 575-988-3199 Fax: 575-988-3199

13

Chain of Custody Record

💸 eurofins

Environment Testing

State, Zip TX 79701 SW11 (890-4959-2) SW10 (890-4959-1) Sample Identification - Client ID (Lab ID) 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 aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/fests/matrix 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 Deliverable Requested I II III IV Other (specify) POKER LAKE UNIT 183 Q 432-704-5440(Tel) Eurofins Environment Testing South Centr Shipping/Receiving Client Information (Sub Contract Lab) elinquished by: Empty Kit Relinquished by ossible Hazard Identification Midland 1211 W Florida Ave elinquished by elinquished by Custody Seals Intact: oject Name हि Custody Seal No Project #: 89000093 Phone WO# Due Date Requested 7/24/2023 Date/Time Primary Deliverable Rank Date/Time FAT Requested (days) 7/18/23 7/18/23 Date Mountain 10 35 Mountain Sample 10 00 (C=comp, Sample Preservation Code: Type Company Company Matrix Solid Solid Kramer Jessica E-Mail Jessica Kramer@et.eurofinsus com NELAP - Texas Accreditations Required (See note) Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Perform MS/MSD (Yes or No) Special Instructions/QC Requirements 8015MOD\_NM/8015NM\_S\_Prep (MOD) Full TPH Cooler Temperature(s) °C and Other Remarks. Received by: × × × × 8015MOD\_Calo 300\_ORGFM\_28D/DI\_LEACH Chloride × × × × 8021B/6035FP\_Calc (MOD) BTEX Analysis Requested × Total\_BTEX\_GCV × State of Origin. New Mexico Carrier Tracking No(s) ethod of Shipment: Date/Time Date/Time 4 Total Number of containers A HCL
B-NaOH
C Zn Ace
D Nitric A
E NaHSC
F MeOH
G Amchle
H Ascorb COC No: 890-1375 1 Preservation Codes 890-4959-1 Page 1 of 1 O Zn Acetate
O Nitric Acid
O Nitric Acid
E NaHSO4
F MeOH
F MeOH
F MeOH
F Ascorbic Acid
I Ascorbic Acid
I DI Water
K EDTA
EDDA M Hexane
N None
O-AsNaO2
P Na2O4S
Q Na2SO3
R Na2SC3
R Na2SC3
R Na2SC04
T TSP Dodecahydrate
U Acetone
V MCAA
W pH 4-5
Y Trizma
Z other (specify) Company Company Ver 06/08/2021 Months

# **Login Sample Receipt Checklist**

Client: Ensolum

Job Number: 890-4959-1

SDG Number: 03C1558243

Login Number: 4959 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: 890-4959-1 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	True	

<6mm (1/4").



APPENDIX E

**NMOCD Notifications** 

From: <u>Green, Garrett J</u>

To: Enviro, OCD, EMNRD; Bratcher, Michael, EMNRD
Cc: Ben Belill; 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: <u>Collins, Melanie</u>

To: ocd.enviro (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: <u>DelawareSpills /SM</u>; <u>Ben Belill</u>; <u>Green, Garrett J</u>

Subject: XTO - Sampling Notification (Week of 6/26/23 - 6/30/23)

**Date:** Wednesday, June 21, 2023 5:35:44 PM

Attachments: <u>image001.png</u>

# [ \*\*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



**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 < <u>Jocelyn.Harimon@emnrd.nm.gov</u>>

**Cc:** <a href="mailto:spills@slo.state.nm.us">spills@slo.state.nm.us</a>; Green, Garrett J <a href="mailto:spills@slo.state.nm.us">spills@slo.state.nm.us</a>; Garrett J <a href="mailto:spills@slo.state.nm.us">spills@slo.state.nm.us</a>; Garrett J <a href="mailto:spills@slo.state.nm.us">spills@slo.state.nm.us</a>; Garrett J <a href="mailto:spills@slo.state.nm.us">spills@slo.state.nm.us</a>; Garrett S <a href="mailto:spills@slo.state.nm.us">spills@slo.state.nm.us</a>; Green, Garrett S <a href="mailto:spills@slo.s

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

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:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	251018
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By		Condition Date
scwells	None	1/17/2024