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	NAPP2204835360
District RP	
Facility ID	
Application ID	

## **Release Notification**

## **Responsible Party**

Responsible Party XTO Energy			OGRID	OGRID 5380		
Contact Name Adrian Baker			Contact	Contact Telephone 432-236-3808		
Contact ema	Contact email adrian.baker@exxonmobil.com			Incident #	(assigned by OCD)	)
			Rd Bldg 5, Midla	nd, Texas, 79707		
'						
			Location	of Release S	ource	
Latitude 32.2	25928			Longitude		
			(NAD 83 in dec	cimal degrees to 5 deci	mal places)	
Site Name L	os Medanos			Site Type	Tank Battery	
Date Release	Discovered	02/02/2022		API# (if ap	plicable)	
Unit Letter	Section	Township	Range	Cou	ntv	7
K	36	25S	30E	Edd	_ <u>`</u>	1
	30	255	30E	Edd		_
Surface Owner	r: 🗷 State	Federal T	ribal 🗌 Private (/	Name:		)
			Natura and	d Volume of	Dalassa	
			rature and	i volume of	Itticast	
Crude Oi	Material(s) Released (Select all that apply and attach calcula  Crude Oil Volume Released (bbls)		calculations or specific	Volume Reco		
✓ Produced Water Volume Released (bbls) 9.57			Volume Reco			
			tion of total dissol	ved solids (TDS)	Yes N	, т.10
		in the produced	water >10,000 mg	` /		
Condensate Volume Released (bbls)			Volume Reco			
Natural Gas Volume Released (Mcf)			Volume Reco			
Other (de	scribe)	Volume/Weight	Released (provide	e units)	Volume/Weig	ght Recovered (provide units)
C CD 1						
Cause of Release C orrosion caused a leak on the bulk separator water dump line. Free fluids were recovered with a vacuum truck. A third-party contractor has been retained for remediation purposes.						
	third-pa	arty contractor has	been retained for	remediation purpo	oses.	

Received by OCD: 5/3/2022/11:52:17(AM)
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Was this a major	If YES, for what reason(s) does the respon	sible party consider this a major release?	
release as defined by	N/A		
19.15.29.7(A) NMAC?			
☐ Yes 🗷 No			
If YES, was immediate no	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?	
N/A	Ç	•	
	Initial Re	esponse	
The responsible	party must undertake the following actions immediately	unless they could create a safety hazard that would result in injury	
The source of the rele	ease has been stopped.		
<u></u>	is 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.	
If all the actions described	d above have <u>not</u> been undertaken, explain v	vhy:	
NA			
		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 actions and perform corrective actions for releases which may endanger	
public health or the environr	ment. The acceptance of a C-141 report by the O	CD does not relieve the operator of liability should their operations have	
failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws			
and/or regulations.			
Printed Name: Adrian Ba	aker	Title: SSHE Coordinator	
Signature:	A Pal	Date: 2/17/22	
adrian bakar@ayy	conmobil com	432-236-3808	
email:		Telephone: 432-236-3808	
OCD Only			
, – D	o Margue	2 / 10 / 2022	
Received by: Ramon	a Marcus	Date: <u>2/18/2022</u>	

4.10 bbls

Location:	Los Dos Medanos Battery	,,,,	
Spill Date:	2/2/2022	ĺ.	
	Area 1		
Approximate A	rea =	12085.00	sq. ft.
Average Satura	tion (or depth) of spill =	0.50	inches
Average Porosi	ty Factor =	0.03	
	VOLUME OF LEAK		
Total Crude Oil	=	0.00	bbls
Total Produced	Water =	2.69	bbls
	Area 2		
Approximate Area = 624.00 sq. f		sq. ft.	
Average Saturation (or depth) of spill = 2.00		inches	
Average Porosity Factor = 0.15			
VOLUME OF LEAK			
Total Crude Oil	=	0.00	bbls
Total Produced Water = 6.88		bbls	
TOTAL VOLUME OF LEAK			
Total Crude Oil	=	0.00	bbls
Total Produced Water = 9.57 bl		bbls	
TOTAL VOLUME RECOVERED			
Total Crude Oil	=	0.00	bbls

Total Produced Water =

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 82304

## **CONDITIONS**

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	82304
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By		Condition Date
rmarcus	None	2/18/2022

w Mexico
on Division

Incident ID
District RP

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## **Site Assessment/Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release?	(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?	☐ Yes ⊠ No	
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>Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li>Field data</li> <li>Data table of soil contaminant concentration data</li> <li>Depth to water determination</li> <li>Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release</li> <li>Boring or excavation logs</li> <li>Photographs including date and GIS information</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

Topographic/Aerial maps

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Printed Name: Adrian Baker	Title: Environmental Coordinator	
Signature:Bats	Date: 05/03/2022	
email: _adrian.baker@exxonmobil.com_	Telephone:432-263-3808	
OCD Only		
Received by:	Date:	

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Incident ID	NAPP2204835360	
District RP		
Facility ID		
Application ID		

## **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be	included in the plan.
<ul> <li>☑ Detailed description of proposed remediation technique</li> <li>☑ Scaled sitemap with GPS coordinates showing delineation point</li> <li>☑ Estimated volume of material to be remediated</li> <li>☑ Closure criteria is to Table 1 specifications subject to 19.15.29.1</li> <li>☑ Proposed schedule for remediation (note if remediation plan times)</li> </ul>	2(C)(4) NMAC
Deferral Requests Only: Each of the following items must be con-	firmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around predeconstruction.	oduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human health	, the environment, or groundwater.
which may endanger public health or the environment. The acceptar liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local limited Name:  Adrian Baker	ertain release notifications and perform corrective actions for releases nee of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of aws and/or regulations.  Title: Environmental Coordinator
Signature:	Date: <u>5-3-2022</u>
email: adrian.baker@exxonmobil.com	Telephone: 432-236-3808
OCD Only	
Received by:	Date:
Approved	Approval Denied Deferral Approved
Signature:	Date:

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Application ID	

## **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be included in the plan.
<ul> <li>Detailed description of proposed remediation technique</li> <li>Scaled sitemap with GPS coordinates showing delineation points</li> <li>Estimated volume of material to be remediated</li> <li>Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>
Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.  Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
Extents of contamination must be fully delineated.
Contamination does not cause an imminent risk to human health, the environment, or groundwater.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: Adrian Baker Title: Environmental Coordinator
Signature: Date:
email: adrian.baker@exxonmobil.com Telephone: 432-236-3808
OCD Only
Received by: Robert Hamlet Date: 6/27/2022
☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved
Signature: Robert Hamlet Date: 6/27/2022



May 3, 2022

District II New Mexico Oil Conservation Division 811 S. First Street Artesia, New Mexico 88210

Re: Remediation Work Plan

Los Medanos

Incident Number NAPP2204835360

**Eddy County, New Mexico** 

## To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared the following Remediation Work Plan to document the site assessment and soil sampling activities completed to date and propose a work plan to address the impacted soil identified at the Los Medanos tank battery (Site). The purpose of the site assessment and soil sampling activities was to delineate the lateral and vertical extent of impacted soil resulting from a release of produced water at the Site. The following Work Plan proposes to install a soil boring to investigate depth to water to confirm the Closure Criteria at the Site and excavate the impacted soil.

## SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit K, Section 36, Township 25 South, Range 30 East, in Eddy County, New Mexico (32.25928° N, 103.83742° W) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On February 2, 2022, corrosion caused a leak on the bulk separator water dump line, which resulted in the release of 9.57 barrels (bbls) of produced water onto the well pad and into the adjacent pasture where fluids pooled. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 4.10 bbls of produced water were recovered. XTO reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on February 17, 2022. The release was assigned Incident Number NAPP2204835360.

#### SITE CHARATERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) 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 greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest groundwater well with depth to groundwater data is United

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 705 W. Wadley, Suite 210 | Midland, TX 78209 | ensolum.com Texas PG Firm No. 50588 | Texas PE Firm No. F-21843



States Geological Suvery (USGS) well 321544103515202 located approximately 1.6 miles west of the Site. The groundwater well has a reported depth to groundwater of 417 feet bgs and a total depth of 563 feet bgs. All wells used for depth to water determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 2,133 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table 1 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 diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation standard of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

## SITE ASSESSMENT AND DELINEATION ACTIVITIES

On April 13, 2022, Ensolum personnel completed a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Ten preliminary soil samples (SS01 through SS10) were collected within and around the release extent from a depth of 0.5 feet bgs. Preliminary soil samples SS01 through SS05 were collected within the release extent on pad, sample SS06 was collected within the pasture release area, and samples SS07 through SS10 were collected around the release extent to confirm the lateral exent. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

The preliminary 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 at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of 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.

On April 20, 2022 delineation activities were conducted at the Site to assess the vertical extent of impacted soil. Potholes PH01 through PH05 were advanced via track mounted backhoe within the release extent on pad at the locations of preliminary soil samples SS01 through SS05. Borehole BH01 was advanced via hand auger within the release extent in the pasture at the location of preliminary soil



sample SS06. The delineation potholes and borehole were advanced a depth of 4 feet bgs. Discrete delineation soil samples were collected from each pothole and borehole at depths ranging from 1-foot bgs to 4 feet bgs. Soil from the potholes and borehole was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes and borehole were logged on lithologic/soil sampling logs, which are included in Appendix C. The delineation soil samples were handled and analyzed as described above. The delineation soil sample locations are depicted on Figure 2.

#### LABORATORY ANALYTICAL RESULTS

Benzene, BTEX, TPH-GRO/TPH-DRO, and TPH concentrations were compliant with the most stringent Table 1 Closure Criteria in preliminary samples SS01 through SS10 and in all delineation soil samples from borehole BH01 and potholes PH01 through PH05. No hydrocarbon impacted soil was identified as a result of the release.

Laboratory analytical results for preliminary soil samples SS01 through SS05, collected within the release extent on pad, indicated that chloride concentrations exceeded the Site Closure Criteria. Laboratory analytical results for preliminary soil sample SS06, collected in the pasture, indicated that the chloride concentration was compliant with the reclamation standard. Laboratory analytical results for preliminary soil samples SS07 through SS10, collected around the release extent, indicated that chloride concentrations were compliant with the most stringent Table 1 Closure Criteria and successfully defined the lateral extent of the release.

Laboratory analytical results for the delineation soil samples collected from borehole BH01, advanced in the pasture at the location of preliminary soil sample SS06, indicated that chloride concentrations exceeded the reclamation standard at depths ranging from 1-foot to 4 feet bgs.

Laboratory analytical results for the delineation soil samples collected from potholes PH01 through PH05 at depths ranging from 1-foot to 4 feet bgs, indicated that chloride concentrations were compliant with most stringent Table 1 Closure Criteria and defined the vertical extent of the impacted soil on pad. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical reports are included in Appendix D.

## PROPOSED REMEDIATION WORK PLAN

In order to confirm depth to groundwater is greater than 100 feet bgs at the Site, XTO proposes to advance a soil boring to a depth of 105 feet bgs. The soil boring will be located within 0.5 miles of the Site and a field geologist will log and describe soils continuously. The soil boring will be left open for over 72 hours to allow for equilibration of groundwater levels within the temporary boring casing. After the 72-hour waiting period, depth to groundwater will be assessed and the soil boring will be backfilled following New Mexico Office of the State Engineer (NMOSE) approved procedures. A well record or soil boring log will be included in the follow up Closure Report.

Following confirmation of depth to groundwater, XTO will proceed with excavation of impacted soil on pad to below the established Site Closure Criteria and excavation in the pasture to below the reclamation standard in the top 4 feet. Based on the delineation soil sample analytical results and area of the release extent, an estimated 300 cubic yards of impacted soil will be excavated from the well pad and an estimated 60 cubic yards will be excavated from the adjacent pasture.

Due to the estimated 16,850 square foot size of the excavation, XTO requests a variance for frequency of excavation confirmation samples. XTO proposes the frequency of confirmation sampling for the



excavation floor to be decreased from every 200 square feet (approximately 85 samples) to every 500 square feet (approximately 35 samples). Each 5-point composite floor sample will represent a 500 square foot area. Sidewall samples in areas where the excavation is shallow (less than 1-foot bgs) will be incorporated into the floor sample aliquots. Sidewall samples in areas of the excavation in the pasture which are anticipated to be as deep as 4 feet bgs will be collected at a frequency of every 200 square feet (approximately 4 samples). The soil samples will be handled as described above and analyzed for chloride at Eurofins in Carlsbad, New Mexico. The soil samples will be analyzed for chloride only since no TPH concentrations were detected in any of the samples collected at the Site. The source of the release was produced water and chloride is the established contaminant of concern.

XTO will complete the excavation activities within 90 days of the date of approval of this Work Plan by the NMOCD. The depth to water soil boring will be completed as soon as possible following approval from the surface landowner, receipt of the NMOSE drilling permit, and scheduling with a driller.

If you have any questions or comments, please contact Ms. Aimee Cole at (720) 384-7365 or acole@ensolum.com.

Sincerely, **Ensolum, LLC** 

Tacoma Morrissey Senior Geologist

Mouissey

Aimee Cole Senior Managing Scientist

Since Cole

cc: Adrian Baker, XTO

New Mexico State Land Office

## Appendices:

Figure 1 Site Location Map

Figure 2 Delineation Soil Sample Locations
Table 1 Soil Sample Analytical Results
Appendix A Referenced Well Records

Appendix B Photographic Log

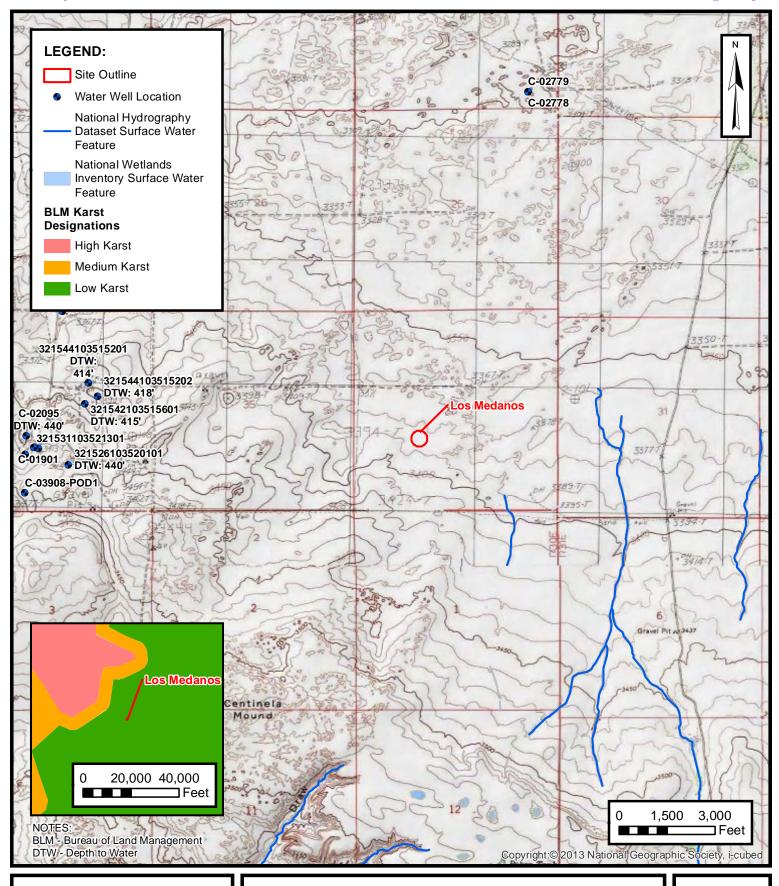
Appendix C Lithologic / Soil Sampling Logs

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

Appendix E NMOCD Notifications



**FIGURES** 

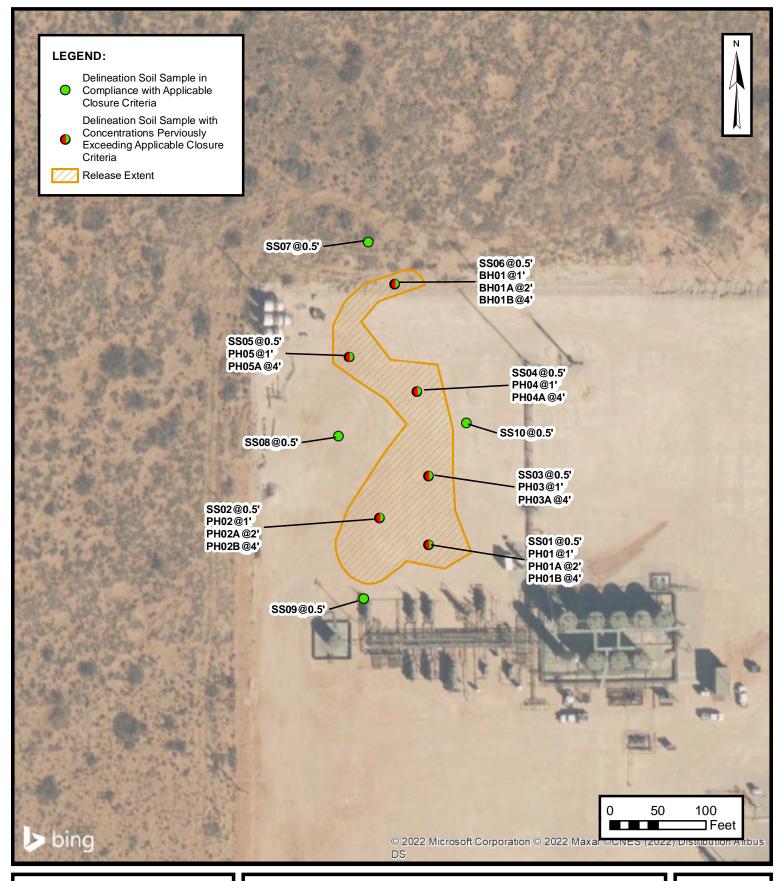




### SITE RECEPTOR MAP

XTO ENERGY, INC LOS MEDANOS NAPP2204835360 Unit K, Sec 36, T25S, R30E Eddy County, New Mexico **FIGURE** 

1





### **DELINEATION SOIL SAMPLE LOCATIONS**

XTO ENERGY, INC LOS MEDANOS NAPP2204835360 Unit K, Sec 36, T23S, R30E Eddy County, New Mexico **FIGURE** 

2



**TABLES** 



#### TABLE 1 **SOIL SAMPLE ANALYTICAL RESULTS** Los Medanos 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 1	Closure Criteria (I	NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
				Pre	liminary Soil Sa	mples				
SS01	04/13/2022	0.5	<0.00200	0.0311	<50.0	<50.0	<50.0	<50.0	<50.0	87,400
SS02	04/13/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	90,600
SS03	04/13/2022	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	23,200
SS04	04/13/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	40,600
SS05	04/13/2022	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	35,000
SS06	04/13/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	529*
SS07	04/20/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	6.88
SS08	04/20/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	215
SS09	04/20/2022	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	157
SS10	04/20/2022	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	97.1
				De	lineation Soil Sar	nples				
BH01	04/20/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	1,880*
BH01A	04/20/2022	2	< 0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	1,290*
BH01B	04/20/2022	4	< 0.00200	< 0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	3,320
PH01	04/20/2022	1	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	124
PH01A	04/20/2022	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	34.8
PH01B	04/20/2022	4	< 0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
PH02	04/20/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	30.5
PH02A	04/20/2022	2	< 0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<4.95
PH02B	04/20/2022	4	< 0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	<5.04
PH03	04/20/2022	1	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	28.6
PH03A	04/20/2022	4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	8.6
PH04	04/20/2022	1	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	36.0
PH04A	04/20/2022	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	<4.96
PH05	04/20/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	50.8
PH05A	04/20/2022	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	29.4

#### 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 1 Closure Criteria or

reclamation standard where applicable.

GRO: Gasoline Range Organics DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon



**APPENDIX A** 

Referenced Well Records



USGS Home Contact USGS Search USGS

## **National Water Information System: Web Interface**

**USGS Water Resources** 

Data Category:		Geographic Area:		
Groundwater	~	United States	~	GO

#### Click to hideNews Bulletins

- Explore the NEW <u>USGS National Water Dashboard</u> interactive map to access realtime water <u>data</u> from over 13,500 stations nationwide.
- Full News

Groundwater levels for the Nation

■ Important: Next Generation Monitoring Location Page

## Search Results -- 1 sites found

site no list =

• 321544103515202

## Minimum number of levels = 1

Save file of selected sites to local disk for future upload

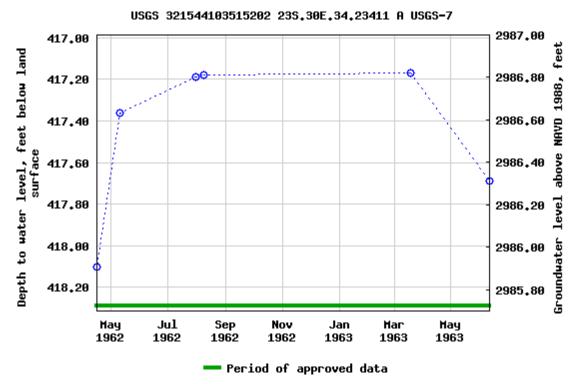
## USGS 321544103515202 23S.30E.34.23411 A USGS-7

Available data for this site Groundwater: Field measurements GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°15'44", Longitude 103°51'52" NAD27
Land-surface elevation 3,404 feet above NAVD88
The depth of the well is 563 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

**Output formats** 

Table of data	
Tab-separated data	
Graph of data	
Reselect period	



Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

**Title: Groundwater for USA: Water Levels** 

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2022-04-13 14:20:28 EDT

0.55 0.49 nadww01





# New Mexico Office of the State Engineer

# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag POD Number

Q64 Q16 Q4 Sec Tws Rng

X Y

C 02095

2 3 34 23S 30E

606337 3569759\*

9

**Driller License:** 

**Driller Company:** 

**Driller Name:** 

DEPT. OF ENGERY

**Drill Start Date:** 

**Drill Finish Date:** 

08/31/1960

Plug Date:

Log File Date:

PCW Rcv Date:

Source:

Pump Type:

Pipe Discharge Size:

**Estimated Yield:** 

100 GPM

**Casing Size:** 

12.75

Depth Well:

554 feet

Depth Water:

440 feet

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/13/22 12:33 PM

POINT OF DIVERSION SUMMARY

<sup>\*</sup>UTM location was derived from PLSS - see Help



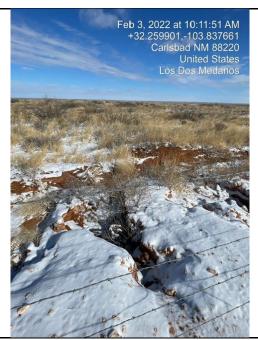
**APPENDIX B** 

Photographic Log

# **ENSOLUM**

## **Photographic Log**

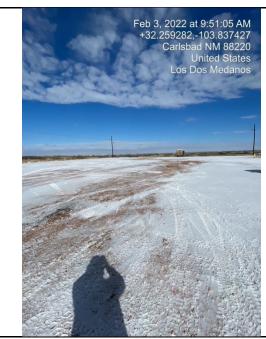
XTO Energy, Inc.
Los Medanos
Incident Number NAPP2204835360



Photograph 1

Date: February 3, 2022

Description: Photo of visible staining from release.



Photograph 2

Date: February 3, 2022

Description: Photo of visible staining from release.



Photograph 3

Date: April 13, 2022

Photograph 4

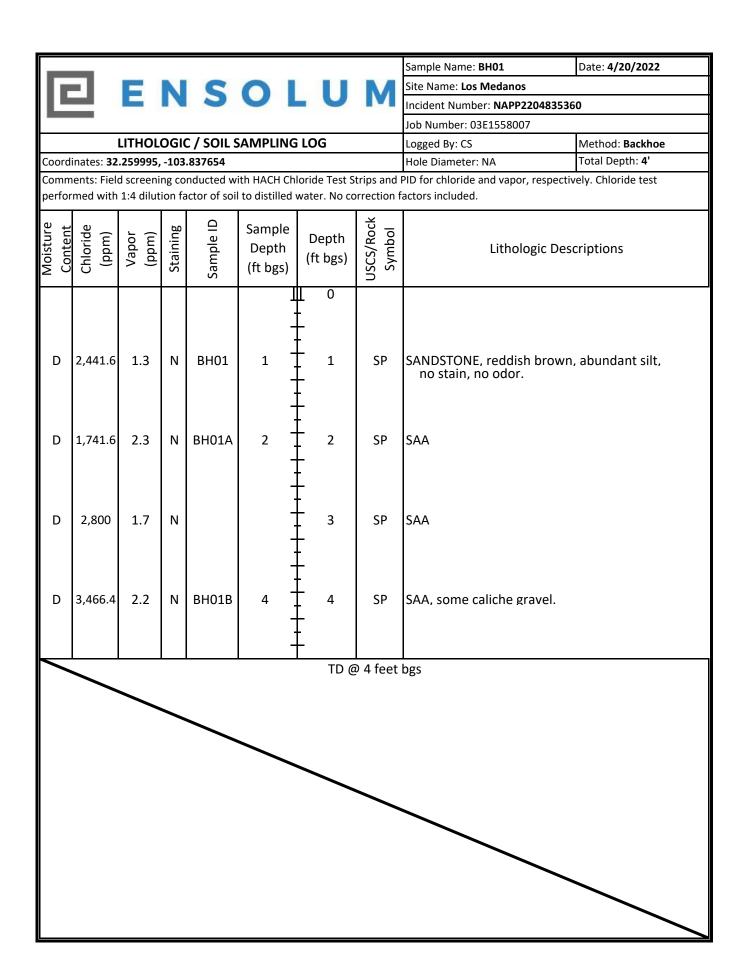
Date: April 13, 2022

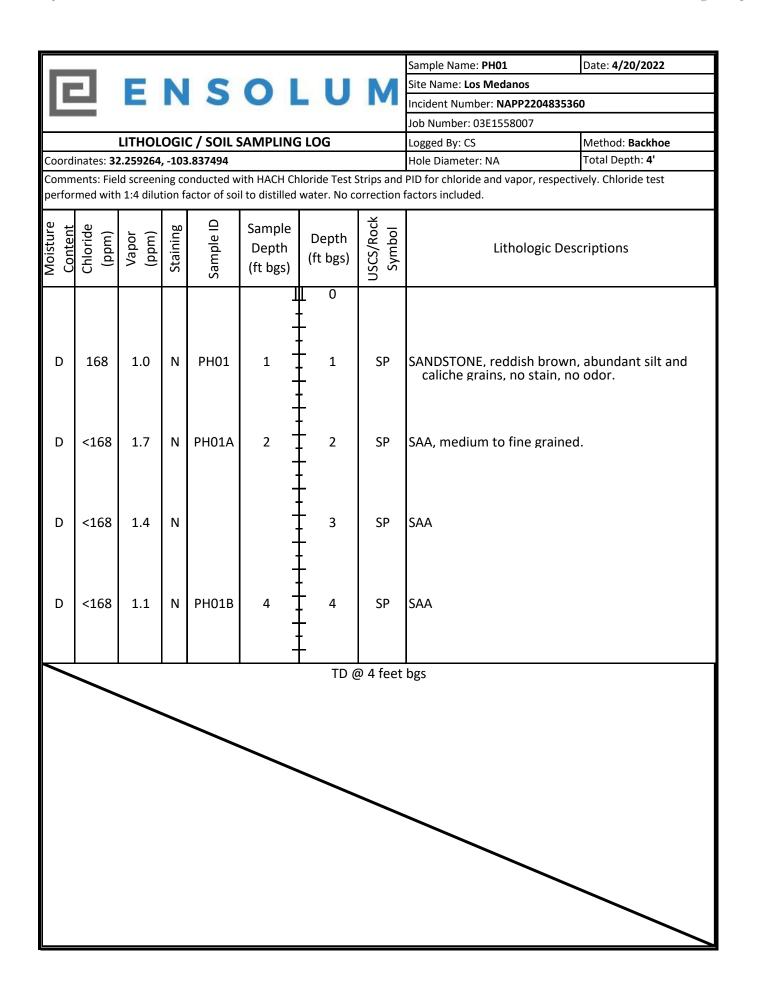
Description: Photo of extent taken during initial site visit. Description: Photo of extent taken during initial site visit.

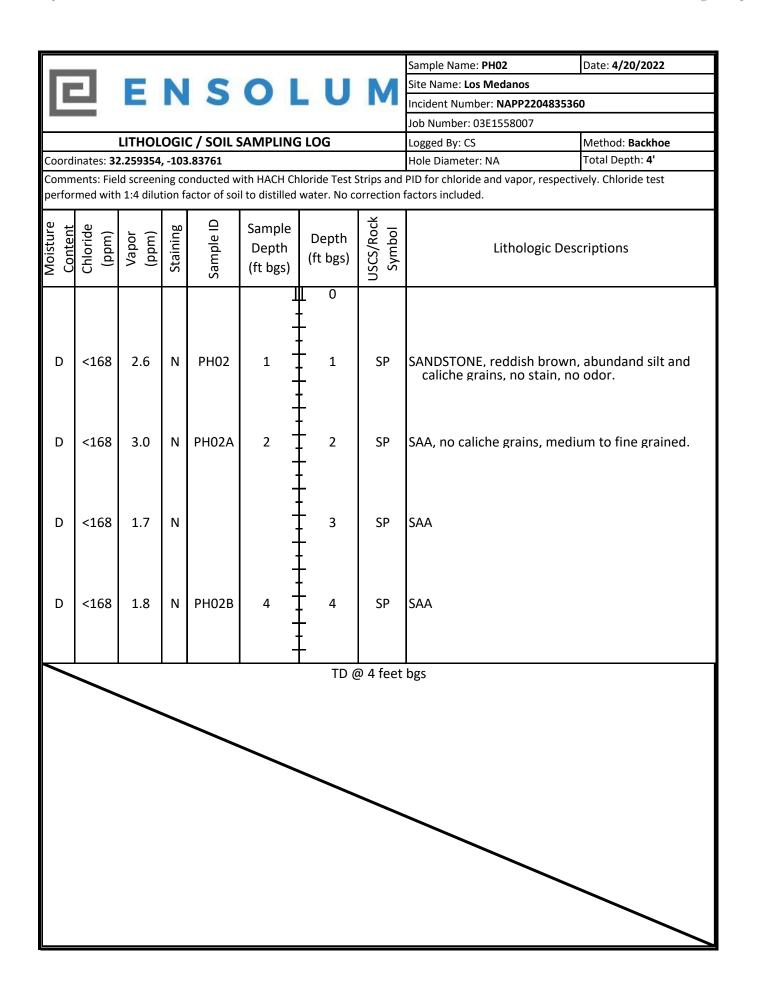


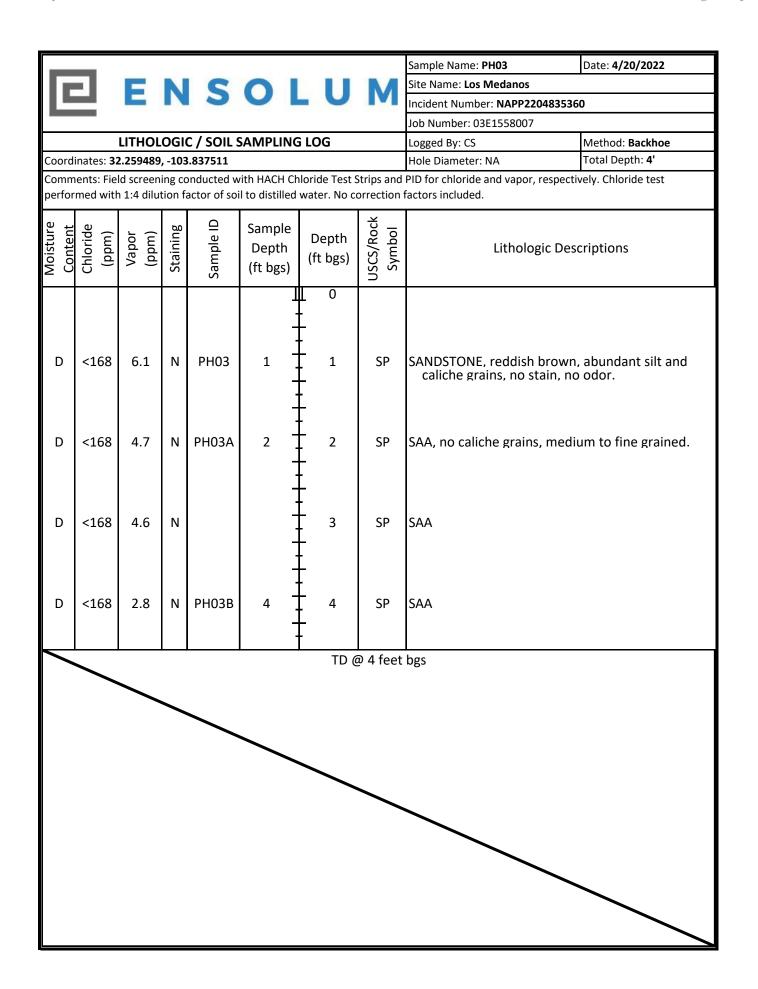
APPENDIX C

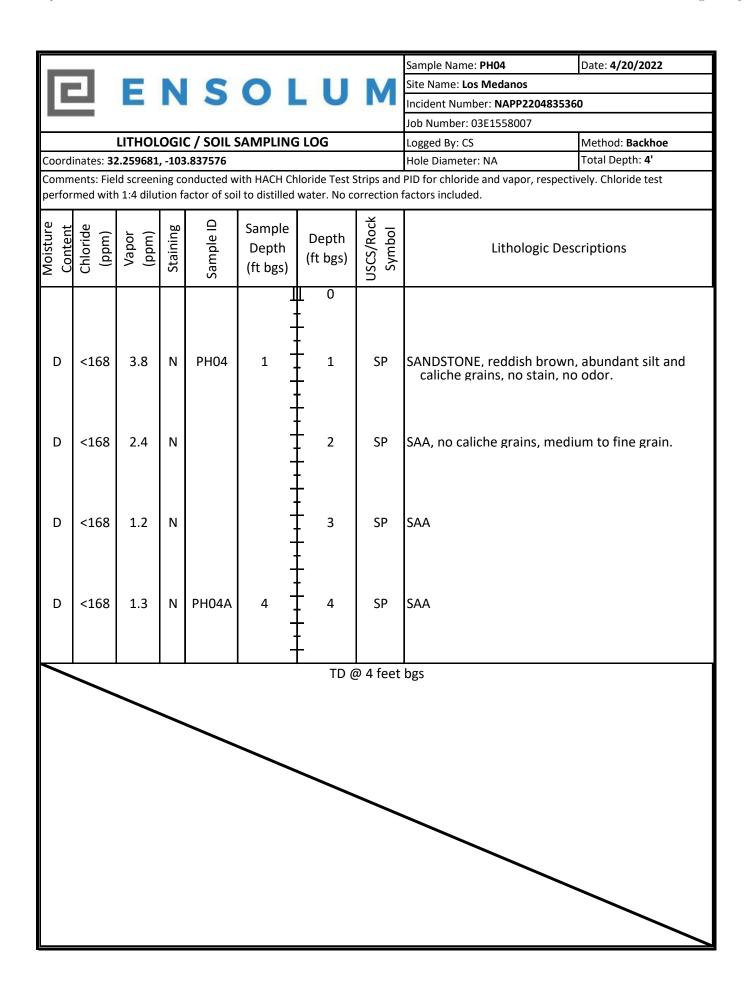
Lithologic Soil Sampling Logs

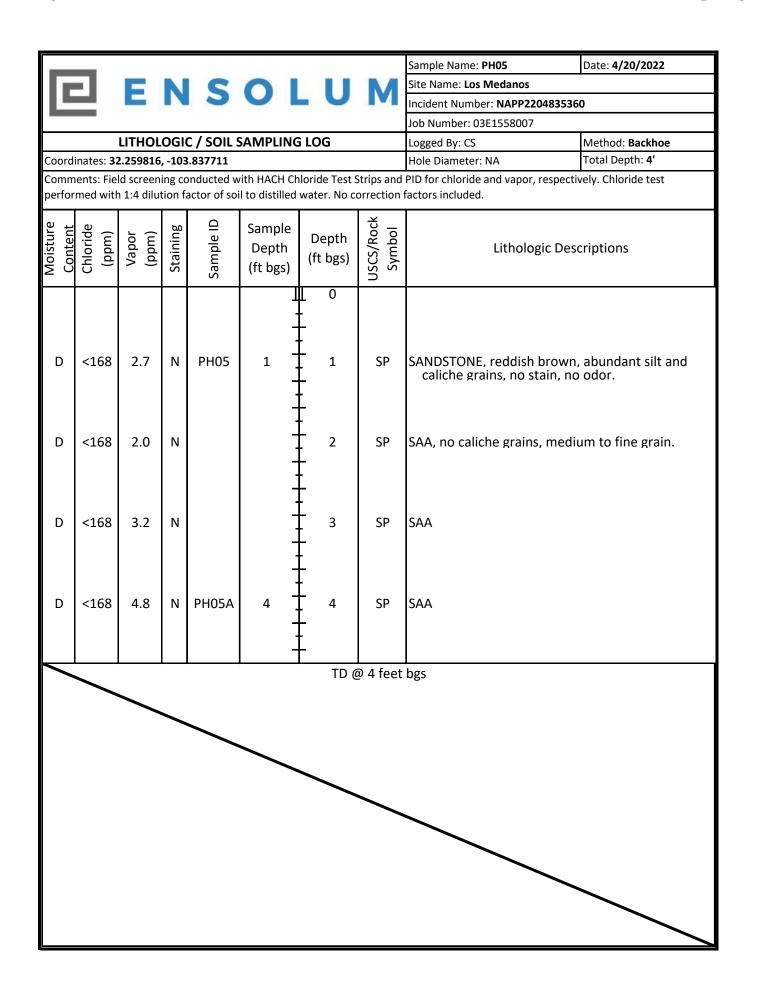














APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

# **Environment Testing America**

## **ANALYTICAL REPORT**

**Eurofins Carlsbad** 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2197-1

Laboratory Sample Delivery Group: 03E1558007

Client Project/Site: Los Dos Medenos

Revision: 1

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

Brisma Tel

Authorized for release by: 4/29/2022 5:06:21 PM Brianna Teel, Project Manager (432)704-5440 Brianna.Teel@et.eurofinsus.com

Designee for

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

**Review your project** results through Total Access **Have a Question?** Expert

www.eurofinsus.com/Env

·····LINKS ·······

Visit us at:

Released to Imaging: 6/27/2022 10:49:41 AM

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

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

Client: Ensolum
Project/Site: Los Dos Medenos

Laboratory Job ID: 890-2197-1
SDG: 03E1558007

# **Table of Contents**

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QC Sample Results	12
QC Association Summary	19
Lab Chronicle	22
Certification Summary	24
Method Summary	25
Sample Summary	26
Chain of Custody	27
Receipt Checklists	28

2

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## **Definitions/Glossary**

Client: Ensolum Job ID: 890-2197-1 Project/Site: Los Dos Medenos

SDG: 03E1558007

## **Qualifiers**

**GC VOA** 

Qualifier **Qualifier Description** 

MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not

applicable.

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** 

Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

Qualifier **Qualifier Description** 

F1 MS and/or MSD recovery exceeds control limits.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid **CFU** Colony Forming Unit CNF Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DΙ 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)

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

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

**RER** Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

**TNTC** Too Numerous To Count

**Eurofins Carlsbad** 

## Case Narrative

Client: Ensolum

Project/Site: Los Dos Medenos

Job ID: 890-2197-1

SDG: 03E1558007

Job ID: 890-2197-1

**Laboratory: Eurofins Carlsbad** 

**Narrative** 

Job Narrative 890-2197-1

#### REVISION

The report being provided is a revision of the original report sent on 4/22/2022. The report (revision 1) is being revised due to Per client email, requesting we review all chloride data. Not matching field screenings.

Report revision history

#### Receipt

The samples were received on 4/18/2022 8:04 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 3.4°C

#### **GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-23784 and analytical batch 880-23768 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-23912/1-A) and (MB 880-23912/5-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

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 (MS) recoveries for preparation batch 880-24453 and analytical batch 880-24454 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.

**Eurofins Carlsbad** 4/29/2022 (Rev. 1) Client: Ensolum Job ID: 890-2197-1

Project/Site: Los Dos Medenos SDG: 03E1558007

**Client Sample ID: SS01** Lab Sample ID: 890-2197-1 Date Collected: 04/13/22 12:00 Matrix: Solid Date Received: 04/18/22 08:04

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/19/22 13:14	04/20/22 03:07	1
Toluene	0.0202		0.00200	mg/Kg		04/19/22 13:14	04/20/22 03:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/19/22 13:14	04/20/22 03:07	1
m-Xylene & p-Xylene	0.0109		0.00400	mg/Kg		04/19/22 13:14	04/20/22 03:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/19/22 13:14	04/20/22 03:07	1
Xylenes, Total	0.0109		0.00400	mg/Kg		04/19/22 13:14	04/20/22 03:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130			04/19/22 13:14	04/20/22 03:07	1
1,4-Difluorobenzene (Surr)	82		70 - 130			04/19/22 13:14	04/20/22 03:07	1
Method: Total BTEX - Total B	TEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0311		0.00400	mg/Kg			04/20/22 11:37	1
- 1 T T T T T T T T T T T T T T T T T T		s (DRO) (0		mg/Kg			04/20/22 11:37	1
Total BTEX  Method: 8015 NM - Diesel Rai Analyte	nge Organic	s (DRO) (0 Qualifier		mg/Kg <b>Unit</b>	D	Prepared	04/20/22 11:37  Analyzed	1 Dil Fac
Method: 8015 NM - Diesel Rai	nge Organic	Qualifier	GC)		<u>D</u>	Prepared		
Method: 8015 NM - Diesel Rai Analyte Total TPH	nge Organic Result <50.0	Qualifier U	RL 50.0	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Rai Analyte	nge Organic Result <50.0	Qualifier U	RL 50.0	Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics	nge Organic Result <50.0	Qualifier U ics (DRO) Qualifier	RL 50.0	Unitmg/Kg	_ =	<u> </u>	Analyzed 04/20/22 15:20 Analyzed	Dil Fac
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	nge Organic Result <50.0	Qualifier U ics (DRO) Qualifier U	RL 50.0	Unit mg/Kg	_ =	Prepared	Analyzed 04/20/22 15:20  Analyzed 04/20/22 00:53	Dil Fac
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10	nge Organic Result <50.0 cange Organ Result <50.0	Qualifier U  ics (DRO) Qualifier U	(GC)  RL  50.0  RL  50.0	Unit mg/Kg  Unit mg/Kg	_ =	Prepared 04/19/22 10:31 04/19/22 10:31	Analyzed 04/20/22 15:20  Analyzed 04/20/22 00:53	Dil Fac
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	range Organic Result <50.0 Range Organ Result <50.0	Qualifier U  ics (DRO) Qualifier U  U	(GC)  RL  50.0  RL  50.0  50.0	Unit mg/Kg  Unit mg/Kg mg/Kg	_ =	Prepared 04/19/22 10:31 04/19/22 10:31	Analyzed 04/20/22 15:20  Analyzed 04/20/22 00:53 04/20/22 00:53	Dil Fac
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	range Organic Result <50.0  tange Organ Result <50.0  <50.0  <50.0	Qualifier U  ics (DRO) Qualifier U  U	GC) RL 50.0  (GC) RL 50.0  50.0  50.0	Unit mg/Kg  Unit mg/Kg mg/Kg	_ =	Prepared 04/19/22 10:31 04/19/22 10:31	Analyzed 04/20/22 15:20  Analyzed 04/20/22 00:53 04/20/22 00:53	Dil Fac
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	range Organic Result <50.0  cange Organ Result <50.0 <50.0 <50.0  %Recovery	Qualifier U  ics (DRO) Qualifier U  U	GC) RL 50.0  (GC) RL 50.0  50.0  50.0  Limits	Unit mg/Kg  Unit mg/Kg mg/Kg	_ =	Prepared 04/19/22 10:31 04/19/22 10:31 04/19/22 10:31 Prepared	Analyzed 04/20/22 15:20  Analyzed 04/20/22 00:53 04/20/22 00:53  Analyzed 04/20/22 00:53	Dil Fac
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	nge Organic	Qualifier U  Compared to the c	GC)  RL  50.0  (GC)  RL  50.0  50.0  50.0  Limits  70 - 130  70 - 130	Unit mg/Kg  Unit mg/Kg mg/Kg	_ =	Prepared 04/19/22 10:31 04/19/22 10:31 04/19/22 10:31  Prepared 04/19/22 10:31	Analyzed 04/20/22 15:20  Analyzed 04/20/22 00:53 04/20/22 00:53  Analyzed 04/20/22 00:53	Dil Face 1 Dil Face 1 Dil Face 1 Dil Face 1

**Client Sample ID: SS02** Lab Sample ID: 890-2197-2 Date Collected: 04/13/22 12:05 **Matrix: Solid** 

496

87400 F1

mg/Kg

Date Received: 04/18/22 08:04

Sample Depth: 0.5

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/19/22 13:14	04/20/22 03:27	1
Toluene	0.00377		0.00201	mg/Kg		04/19/22 13:14	04/20/22 03:27	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/19/22 13:14	04/20/22 03:27	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/19/22 13:14	04/20/22 03:27	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/19/22 13:14	04/20/22 03:27	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/19/22 13:14	04/20/22 03:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			04/19/22 13:14	04/20/22 03:27	1

**Eurofins Carlsbad** 

04/29/22 11:48

Job ID: 890-2197-1

SDG: 03E1558007

Project/Site: Los Dos Medenos Client Sample ID: SS02

Date Collected: 04/13/22 12:05 Date Received: 04/18/22 08:04

Sample Depth: 0.5

Client: Ensolum

Lab Sample ID: 890-2197-2

Matrix: Solid

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

Surrogate %Recovery Qualifier I imits Prepared Dil Fac Analyzed 04/19/22 13:14 04/20/22 03:27 1,4-Difluorobenzene (Surr) 70 - 130 101

**Method: Total BTEX - Total BTEX Calculation** 

Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac Total BTEX <0.00402 U 0.00402 mg/Kg 04/20/22 11:37

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

Result Qualifier RL Unit D Prepared Analyzed Dil Fac Total TPH <50.0 U 50.0 mg/Kg 04/20/22 15:20

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

RL Unit D Dil Fac Result Qualifier Analyzed Analyte Prepared <50.0 U 50.0 04/19/22 10:31 04/20/22 01:35 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 04/19/22 10:31 04/20/22 01:35 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 04/19/22 10:31 04/20/22 01:35 mg/Kg

Dil Fac Surrogate %Recovery Qualifier Limits Prepared Analyzed 1-Chlorooctane 78 70 - 130 04/19/22 10:31 04/20/22 01:35 o-Terphenyl 04/19/22 10:31 04/20/22 01:35 91 70 - 130

Method: 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier Analyte RL Unit Prepared Analyzed Dil Fac Chloride 90600 499 mg/Kg 04/29/22 12:07 100

Client Sample ID: SS03 Lab Sample ID: 890-2197-3 **Matrix: Solid** 

Date Collected: 04/13/22 12:10 Date Received: 04/18/22 08:04

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte Result Qualifier RL Unit D Prepared Dil Fac Analyzed Benzene <0.00202 U 0.00202 mg/Kg 04/19/22 13:14 04/20/22 03:48 Toluene <0.00202 U 0.00202 mg/Kg 04/19/22 13:14 04/20/22 03:48 Ethylbenzene <0.00202 U 0.00202 mg/Kg 04/19/22 13:14 04/20/22 03:48 m-Xylene & p-Xylene <0.00403 U 0.00403 mg/Kg 04/19/22 13:14 04/20/22 03:48 o-Xylene <0.00202 U 0.00202 mg/Kg 04/19/22 13:14 04/20/22 03:48 Xylenes, Total <0.00403 U 0.00403 mg/Kg 04/19/22 13:14 04/20/22 03:48 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac

70 - 130 04/19/22 13:14 04/20/22 03:48 4-Bromofluorobenzene (Surr) 110 1,4-Difluorobenzene (Surr) 108 70 - 130 04/19/22 13:14 04/20/22 03:48

**Method: Total BTEX - Total BTEX Calculation** 

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac <0.00403 U Total BTEX 0.00403 mg/Kg 04/20/22 11:37

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

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Total TPH <49.9 U 49.9 mg/Kg 04/20/22 15:20

**Matrix: Solid** 

Job ID: 890-2197-1

Client: Ensolum Project/Site: Los Dos Medenos SDG: 03E1558007

**Client Sample ID: SS03** Lab Sample ID: 890-2197-3 Date Collected: 04/13/22 12:10 Date Received: 04/18/22 08:04

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/19/22 10:31	04/20/22 01:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/19/22 10:31	04/20/22 01:56	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/19/22 10:31	04/20/22 01:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			04/19/22 10:31	04/20/22 01:56	1
o-Terphenyl	112		70 - 130			04/19/22 10:31	04/20/22 01:56	1

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac 249 04/29/22 12:13 Chloride 23200 mg/Kg

**Client Sample ID: SS04** Lab Sample ID: 890-2197-4 Date Collected: 04/13/22 12:15 **Matrix: Solid** 

Date Received: 04/18/22 08:04

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/19/22 13:14	04/20/22 04:08	1
Toluene	0.00298		0.00201	mg/Kg		04/19/22 13:14	04/20/22 04:08	1
Ethylbenzene	< 0.00201	U	0.00201	mg/Kg		04/19/22 13:14	04/20/22 04:08	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/19/22 13:14	04/20/22 04:08	1
o-Xylene	< 0.00201	U	0.00201	mg/Kg		04/19/22 13:14	04/20/22 04:08	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/19/22 13:14	04/20/22 04:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			04/19/22 13:14	04/20/22 04:08	1
1,4-Difluorobenzene (Surr)	102		70 - 130			04/19/22 13:14	04/20/22 04:08	1
Method: Total BTEX - Total B	ΓEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			04/20/22 11:37	1
Method: 8015 NM - Diesel Rar	nge Organic	s (DRO) (0	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/20/22 15:20	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/19/22 10:31	04/20/22 02:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/19/22 10:31	04/20/22 02:17	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/19/22 10:31	04/20/22 02:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130			04/19/22 10:31	04/20/22 02:17	1
1 Omoroodane	02							

**Eurofins Carlsbad** 

4/29/2022 (Rev. 1)

Job ID: 890-2197-1

SDG: 03E1558007

Project/Site: Los Dos Medenos **Client Sample ID: SS04** 

Date Collected: 04/13/22 12:15

Lab Sample ID: 890-2197-4

**Matrix: Solid** 

Date Received: 04/18/22 08:04 Sample Depth: 0.5

Client: Ensolum

Method: 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	40600	250	mg/Kg			04/29/22 12:20	50	

**Client Sample ID: SS05** Lab Sample ID: 890-2197-5

Matrix: Solid

Date Collected: 04/13/22 12:20 Date Received: 04/18/22 08:04

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00202	U	0.00202	mg/Kg		04/19/22 17:00	04/20/22 11:59	
Toluene	< 0.00202	U	0.00202	mg/Kg		04/19/22 17:00	04/20/22 11:59	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/19/22 17:00	04/20/22 11:59	
m-Xylene & p-Xylene	< 0.00403	U	0.00403	mg/Kg		04/19/22 17:00	04/20/22 11:59	
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/19/22 17:00	04/20/22 11:59	
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		04/19/22 17:00	04/20/22 11:59	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	113		70 - 130			04/19/22 17:00	04/20/22 11:59	
1,4-Difluorobenzene (Surr)	101		70 - 130			04/19/22 17:00	04/20/22 11:59	
Method: Total BTEX - Total B	TEX Calcula	tion						
	D 16	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Analyte	Result	Quaimer	KL	Oilit		i icpaica	Allulyzou	
Analyte Total BTEX	<0.00403		0.00403	mg/Kg	=	Теригеи	04/20/22 11:37	
Total BTEX	<0.00403	U	0.00403		=	Tropulcu		
<del>-</del>	<0.00403	U	0.00403		<u></u> D	Prepared		Dil Fa
Total BTEX  Method: 8015 NM - Diesel Rai Analyte	<0.00403	S (DRO) (O	0.00403 GC)	mg/Kg		<u> </u>	04/20/22 11:37	
Total BTEX  Method: 8015 NM - Diesel Rai Analyte  Total TPH	<0.00403 nge Organic Result <50.0	S (DRO) (G	0.00403 GC) RL 50.0	mg/Kg		· ·	04/20/22 11:37  Analyzed	
Total BTEX  Method: 8015 NM - Diesel Rai Analyte  Total TPH  Method: 8015B NM - Diesel R	<0.00403 nge Organic Result <50.0 ange Organ	S (DRO) (G	0.00403 GC) RL 50.0	mg/Kg		· ·	04/20/22 11:37  Analyzed	Dil Fa
Total BTEX  Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics	<0.00403 nge Organic Result <50.0 ange Organ	S (DRO) (O Qualifier U	0.00403  GC)  RL  50.0	mg/Kg  Unit mg/Kg	<u>D</u>	Prepared	04/20/22 11:37  Analyzed 04/20/22 15:20	Dil Fa
Total BTEX  Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<0.00403  nge Organic Result <50.0  ange Organ Result	S (DRO) (O Qualifier U	0.00403  GC)  RL  50.0  (GC)  RL	mg/Kg  Unit mg/Kg  Unit	<u>D</u>	Prepared Prepared	04/20/22 11:37  Analyzed 04/20/22 15:20  Analyzed	Dil Fa
Total BTEX  Method: 8015 NM - Diesel Rai Analyte  Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<0.00403  nge Organic Result <50.0  ange Organ Result <50.0	S (DRO) (O Qualifier U Gualifier U Gualifi	0.00403  RL  50.0  (GC)  RL  50.0	mg/Kg  Unit mg/Kg  Unit mg/Kg	<u>D</u>	Prepared  Prepared  04/19/22 10:31	04/20/22 11:37  Analyzed 04/20/22 15:20  Analyzed 04/20/22 02:38 04/20/22 02:38	Dil Fa
Total BTEX  Method: 8015 NM - Diesel Rai Analyte  Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<0.00403  nge Organic Result <50.0  ange Organ Result <50.0 <50.0	S (DRO) (O Qualifier U )  ics (DRO) Qualifier U )  U U U	0.00403  RL 50.0  (GC) RL 50.0  50.0	mg/Kg  Unit mg/Kg  Unit mg/Kg  mg/Kg	<u>D</u>	Prepared  Prepared  04/19/22 10:31  04/19/22 10:31	04/20/22 11:37  Analyzed 04/20/22 15:20  Analyzed 04/20/22 02:38 04/20/22 02:38	
Total BTEX  Method: 8015 NM - Diesel Rai Analyte  Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<0.00403 nge Organic Result <50.0 ange Organic Result <50.0 <50.0 <50.0	S (DRO) (O Qualifier U )  ics (DRO) Qualifier U )  U U U	0.00403  RL 50.0  (GC) RL 50.0  50.0  50.0	mg/Kg  Unit mg/Kg  Unit mg/Kg  mg/Kg	<u>D</u>	Prepared  04/19/22 10:31  04/19/22 10:31	Analyzed 04/20/22 15:20  Analyzed 04/20/22 15:20  Analyzed 04/20/22 02:38 04/20/22 02:38	Dil Fa

**Eurofins Carlsbad** 

Analyzed

04/29/22 12:26

Dil Fac

RL

249

Unit

mg/Kg

D

Prepared

Analyte

**Chloride** 

Method: 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

Job ID: 890-2197-1

Client: Ensolum Project/Site: Los Dos Medenos SDG: 03E1558007

**Client Sample ID: SS06** Lab Sample ID: 890-2197-6 Date Collected: 04/13/22 12:25 **Matrix: Solid** 

Date Received: 04/18/22 08:04

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 23:36	
Toluene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 23:36	
Ethylbenzene	< 0.00200	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 23:36	
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		04/21/22 09:54	04/21/22 23:36	
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 23:36	
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		04/21/22 09:54	04/21/22 23:36	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	81		70 - 130			04/21/22 09:54	04/21/22 23:36	
1,4-Difluorobenzene (Surr)	98		70 - 130			04/21/22 09:54	04/21/22 23:36	
Method: Total BTEX - Total B	TEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00401	U	0.00401	mg/Kg			04/20/22 11:37	
						_		
		s (DRO) (G Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Analyte		Qualifier		Unit mg/Kg	<u>D</u>	Prepared	Analyzed 04/20/22 15:20	Dil Fa
Analyte Total TPH	Result < 50.0	Qualifier U	50.0 FL		<u>D</u>	Prepared		Dil Fa
Analyte Total TPH Method: 8015B NM - Diesel R	Result <50.0	Qualifier U	50.0 FL		<u>D</u> D	Prepared Prepared		
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics	Result <50.0	Qualifier U ics (DRO) Qualifier	RL 50.0	mg/Kg	=	<u> </u>	04/20/22 15:20	
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 ange Organ Result	Qualifier U ics (DRO) Qualifier U	RL 50.0 (GC)	mg/Kg	=	Prepared 04/19/22 10:31	04/20/22 15:20  Analyzed	
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ange Organ Result <50.0	Qualifier U ics (DRO) Qualifier U	(GC) RL 50.0	mg/Kg  Unit mg/Kg	=	Prepared 04/19/22 10:31 04/19/22 10:31	04/20/22 15:20  Analyzed 04/20/22 02:59	
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <50.0	Qualifier U  ics (DRO) Qualifier U  U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg  Unit mg/Kg  mg/Kg	=	Prepared 04/19/22 10:31 04/19/22 10:31	04/20/22 15:20  Analyzed 04/20/22 02:59 04/20/22 02:59	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   <50.0	Qualifier U  ics (DRO) Qualifier U  U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg  Unit mg/Kg  mg/Kg	=	Prepared 04/19/22 10:31 04/19/22 10:31	04/20/22 15:20  Analyzed 04/20/22 02:59 04/20/22 02:59 04/20/22 02:59	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R 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  ics (DRO) Qualifier U  U	RL 50.0  (GC) RL 50.0  50.0  50.0  Limits	mg/Kg  Unit mg/Kg  mg/Kg	=	Prepared 04/19/22 10:31 04/19/22 10:31 04/19/22 10:31 Prepared	04/20/22 15:20  Analyzed 04/20/22 02:59 04/20/22 02:59  Analyzed 04/20/22 02:59	Dil Fa
Method: 8015 NM - Diesel Ra Analyte Total TPH  Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl  Method: 300.0 - Anions, Ion C	Result	Qualifier U  ics (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 04/19/22 10:31 04/19/22 10:31 04/19/22 10:31  Prepared 04/19/22 10:31	04/20/22 15:20  Analyzed 04/20/22 02:59 04/20/22 02:59  Analyzed 04/20/22 02:59	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R 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  ics (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 04/19/22 10:31 04/19/22 10:31 04/19/22 10:31  Prepared 04/19/22 10:31	04/20/22 15:20  Analyzed 04/20/22 02:59 04/20/22 02:59  Analyzed 04/20/22 02:59	Dil Fa

## **Surrogate Summary**

Client: Ensolum Job ID: 890-2197-1 Project/Site: Los Dos Medenos SDG: 03E1558007

Method: 8021B - Volatile Organic Compounds (GC)

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

				rcent Surr
		BFB1	DFBZ1	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
380-13710-A-10-E MS	Matrix Spike	86	106	
380-13710-A-10-F MSD	Matrix Spike Duplicate	94	107	
390-2195-A-1-B MS	Matrix Spike	24 S1-	11 S1-	
390-2195-A-1-C MSD	Matrix Spike Duplicate	25 S1-	2 S1-	
390-2197-1	SS01	82	82	
390-2197-2	SS02	98	101	
390-2197-3	SS03	110	108	
390-2197-4	SS04	99	102	
390-2197-5	SS05	113	101	
390-2197-5 MS	SS05	104	103	
390-2197-5 MSD	SS05	101	102	
390-2197-6	SS06	81	98	
_CS 880-23750/1-B	Lab Control Sample	99	101	
_CS 880-23784/1-A	Lab Control Sample	95	103	
_CS 880-23912/1-A	Lab Control Sample	82	10 S1-	
_CSD 880-23750/2-B	Lab Control Sample Dup	103	103	
_CSD 880-23784/2-A	Lab Control Sample Dup	94	103	
_CSD 880-23912/2-A	Lab Control Sample Dup	82	100	
MB 880-23750/5-B	Method Blank	101	92	
MB 880-23779/5-A	Method Blank	97	102	
MB 880-23784/5-A	Method Blank	96	102	
MB 880-23912/5-A	Method Blank	64 S1-	89	

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)				
880-13850-A-21-B MS	Matrix Spike	82	90				
880-13850-A-21-C MSD	Matrix Spike Duplicate	77	81				
890-2197-1	SS01	95	113				
890-2197-2	SS02	78	91				
890-2197-3	SS03	95	112				
890-2197-4	SS04	82	95				
890-2197-5	SS05	94	110				
890-2197-6	SS06	79	91				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

## **Surrogate Summary**

Client: Ensolum Job ID: 890-2197-1 Project/Site: Los Dos Medenos SDG: 03E1558007

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

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

			Percent Surrogate Recovery (Acceptance Limits					
		1CO2	OTPH2					
Lab Sample ID	Client Sample ID	(70-130)	(70-130)					
LCS 880-23780/2-A	Lab Control Sample	92	108					
LCSD 880-23780/3-A	Lab Control Sample Dup	100	116					
MB 880-23780/1-A	Method Blank	98	120					
Surrogate Legend								
1CO = 1-Chlorooctane								
OTPH = o-Terphenyl								

Client: Ensolum Job ID: 890-2197-1 Project/Site: Los Dos Medenos

SDG: 03E1558007

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

Lab Sample ID: MB 880-23750/5-B

Lab Sample ID: LCS 880-23750/1-B

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 23819** 

**Analysis Batch: 23819** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 23750

	IVIB IVI	IB						
Analyte	Result Q	ualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U		0.00200	mg/Kg		04/19/22 17:00	04/20/22 11:37	1
Toluene	<0.00200 U	1	0.00200	mg/Kg		04/19/22 17:00	04/20/22 11:37	1
Ethylbenzene	<0.00200 U	Ī	0.00200	mg/Kg		04/19/22 17:00	04/20/22 11:37	1
m-Xylene & p-Xylene	<0.00400 U		0.00400	mg/Kg		04/19/22 17:00	04/20/22 11:37	1
o-Xylene	<0.00200 U	1	0.00200	mg/Kg		04/19/22 17:00	04/20/22 11:37	1
Xylenes, Total	<0.00400 U	l	0.00400	mg/Kg		04/19/22 17:00	04/20/22 11:37	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	04/19/22 17:00	04/20/22 11:37	1
1,4-Difluorobenzene (Surr)	92		70 - 130	04/19/22 17:00	04/20/22 11:37	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 23750

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1169 70 - 130 mg/Kg 117 Toluene 0.100 0.1265 mg/Kg 70 - 130 127 Ethylbenzene 0.100 0.1142 mg/Kg 70 - 130 114 0.200 m-Xylene & p-Xylene 0.2390 mg/Kg 119 70 - 130 o-Xylene 0.100 0.1126 mg/Kg 113 70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

**Client Sample ID: Lab Control Sample Dup** 

**Matrix: Solid** 

**Analysis Batch: 23819** 

Lab Sample ID: LCSD 880-23750/2-B

Prep Type: Total/NA Prep Batch: 23750

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1144		mg/Kg		114	70 - 130	2	35	
Toluene	0.100	0.1246		mg/Kg		125	70 - 130	2	35	
Ethylbenzene	0.100	0.1118		mg/Kg		112	70 - 130	2	35	
m-Xylene & p-Xylene	0.200	0.2343		mg/Kg		117	70 - 130	2	35	
o-Xylene	0.100	0.1111		mg/Kg		111	70 - 130	1	35	

LCSD LCSD

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

Lab Sample ID: 890-2197-5 MS

**Matrix: Solid** 

**Analysis Batch: 23819** 

Client Sample ID: SS05 Prep Type: Total/NA

Prep Batch: 23750

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.100	0.1146		mg/Kg	_	114	70 - 130	
Toluene	<0.00202	U	0.100	0.1225		mg/Kg		122	70 - 130	

Client: Ensolum Project/Site: Los Dos Medenos

Job ID: 890-2197-1

SDG: 03E1558007

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

Lab Sample ID: 890-2197-5 MS

**Matrix: Solid** 

**Analysis Batch: 23819** 

Client Sample ID: SS05 Prep Type: Total/NA

Prep Batch: 23750

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00202	U	0.100	0.1095		mg/Kg		109	70 - 130	
m-Xylene & p-Xylene	<0.00403	U	0.201	0.2298		mg/Kg		114	70 - 130	
o-Xylene	<0.00202	U	0.100	0.1089		mg/Kg		108	70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

**Client Sample ID: SS05** 

**Prep Type: Total/NA** Prep Batch: 23750

**Matrix: Solid** 

**Analysis Batch: 23819** 

Lab Sample ID: 890-2197-5 MSD

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U	0.0996	0.1280		mg/Kg		127	70 - 130	11	35
Toluene	<0.00202		0.0996	0.1162		mg/Kg		94	70 - 130	5	35
Ethylbenzene	<0.00202	U	0.0996	0.1045		mg/Kg		104	70 - 130	5	35
m-Xylene & p-Xylene	<0.00403		0.199	0.2200		mg/Kg		104	70 - 130	4	35
o-Xylene	<0.00202		0.0996	0.1046		mg/Kg		103	70 - 130	4	35

MSD MSD

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

Lab Sample ID: MB 880-23779/5-A

**Matrix: Solid** 

**Analysis Batch: 23768** 

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

Prep Batch: 23779

Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U	J	0.00200	mg/Kg		04/19/22 10:22	04/19/22 12:24	1
Toluene	<0.00200 L	J	0.00200	mg/Kg		04/19/22 10:22	04/19/22 12:24	1
Ethylbenzene	<0.00200 L	J	0.00200	mg/Kg		04/19/22 10:22	04/19/22 12:24	1
m-Xylene & p-Xylene	<0.00400 L	j	0.00400	mg/Kg		04/19/22 10:22	04/19/22 12:24	1
o-Xylene	<0.00200 L	J	0.00200	mg/Kg		04/19/22 10:22	04/19/22 12:24	1
Xylenes, Total	<0.00400 L	J	0.00400	mg/Kg		04/19/22 10:22	04/19/22 12:24	1

MB MB

MD MD

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	04/19/22 10:22 04/19/22 12:24	1
1,4-Difluorobenzene (Surr)	102		70 - 130	04/19/22 10:22 04/19/22 12:24	1

Lab Sample ID: MB 880-23784/5-A

**Matrix: Solid** 

**Analysis Batch: 23768** 

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

Prep Batch: 23784

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/19/22 13:14	04/20/22 00:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/19/22 13:14	04/20/22 00:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/19/22 13:14	04/20/22 00:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/19/22 13:14	04/20/22 00:35	1

Client: Ensolum

Job ID: 890-2197-1 SDG: 03E1558007 Project/Site: Los Dos Medenos

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

Lab Sample ID: MB 880-23784/5-A **Matrix: Solid** 

**Analysis Batch: 23768** 

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

Prep Batch: 23784

MB MB Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac o-Xylene <0.00200 U 0.00200 mg/Kg 04/19/22 13:14 04/20/22 00:35 <0.00400 U 0.00400 Xylenes, Total mg/Kg 04/19/22 13:14 04/20/22 00:35

MR MR

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96	70 - 130	04/19/22 13:14	04/20/22 00:35	1
1,4-Difluorobenzene (Surr)	102	70 - 130	04/19/22 13:14	04/20/22 00:35	1

Lab Sample ID: LCS 880-23784/1-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Solid** 

o-Xylene

**Analysis Batch: 23768** 

Prep Batch: 23784 LCS LCS Spike %Rec Analyte Added Result Qualifier Unit D %Rec Limits Benzene 0.100 0.1185 mg/Kg 118 70 - 130 Toluene 0.100 mg/Kg 124 70 - 130 0.1239 Ethylbenzene 0.100 0.1119 mg/Kg 112 70 - 130 m-Xylene & p-Xylene 0.200 0.2319 mg/Kg 116 70 - 130

0.1098

mg/Kg

mg/Kg

0.100

LCS LCS

Surrogate	%Recovery Qualif	ier Limits
4-Bromofluorobenzene (Surr)	95	70 - 130
1.4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: LCSD 880-23784/2-A

**Matrix: Solid** 

**Analysis Batch: 23768** 

**Client Sample ID: Lab Control Sample Dup** 

104

110

70 - 130

Prep Type: Total/NA Prep Batch: 23784

Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit Benzene 0.100 0.1199 70 - 130 mg/Kg 120 35 Toluene 0.100 0.1189 mg/Kg 119 70 - 130 35 Ethylbenzene 0.100 0.1069 mg/Kg 107 70 - 130 35 m-Xylene & p-Xylene 5 35 0.200 0.2204 mg/Kg 110 70 - 130

0.1044

0.100

LCSD LCSD

Surrogate	%Recovery Qua	alifier Limits
4-Bromofluorobenzene (Surr)	94	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: 890-2195-A-1-B MS

**Matrix: Solid** 

o-Xylene

**Analysis Batch: 23768** 

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

70 - 130

Prep Batch: 23784

Sample	Sample	Spike	MS	MS				%Rec	
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
<0.0398	U F1	0.100	<0.0401	U F1	mg/Kg			70 - 130	
4.47	F1	0.100	2.004	F1	mg/Kg		1777	70 - 130	
2.36	F1	0.100	1.189	F1	mg/Kg		1069	70 - 130	
23.3	E	0.200	10.24	4	mg/Kg		4527	70 - 130	
1.87	F1	0.100	0.6170	F1	mg/Kg		522	70 - 130	
	Result <0.0398 4.47 2.36 23.3	Sample   Sample   Result   Qualifier	Result         Qualifier         Added           <0.0398	Result         Qualifier         Added         Result           <0.0398	Result         Qualifier         Added         Result         Qualifier           <0.0398	Result         Qualifier         Added         Result         Qualifier         Unit           <0.0398	Result         Qualifier         Added         Result         Qualifier         Unit         D           <0.0398	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec           <0.0398	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec         Limits           <0.0398

**Eurofins Carlsbad** 

Client: Ensolum Project/Site: Los Dos Medenos

Job ID: 890-2197-1

SDG: 03E1558007

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

Lab Sample ID: 890-2195-A-1-B MS

**Matrix: Solid** 

**Analysis Batch: 23768** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 23784

MS MS

%Recovery Qualifier Limits Surrogate 4-Bromofluorobenzene (Surr) 24 S1-70 - 130 1,4-Difluorobenzene (Surr) 11 S1-70 - 130

Lab Sample ID: 890-2195-A-1-C MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

**Analysis Batch: 23768** 

**Prep Type: Total/NA** 

Prep Batch: 23784

-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.0398	U F1	0.0998	<0.0399	U F1	mg/Kg		0	70 - 130	NC	35
Toluene	4.47	F1	0.0998	2.017	F1	mg/Kg		1797	70 - 130	1	35
Ethylbenzene	2.36	F1	0.0998	1.198	F1	mg/Kg		1082	70 - 130	1	35
m-Xylene & p-Xylene	23.3	E	0.200	10.10	4	mg/Kg		4476	70 - 130	1	35
o-Xylene	1.87	F1	0.0998	0.6504	F1	mg/Kg		558	70 - 130	5	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	25	S1-	70 - 130
1,4-Difluorobenzene (Surr)	2	S1-	70 - 130

Lab Sample ID: MB 880-23912/5-A

**Matrix: Solid** 

**Analysis Batch: 23884** 

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

Prep Batch: 23912

MB MB Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Benzene 0.00200 04/21/22 09:54 04/21/22 12:11 <0.00200 U mg/Kg Toluene <0.00200 U 0.00200 mg/Kg 04/21/22 09:54 04/21/22 12:11 Ethylbenzene <0.00200 U 0.00200 mg/Kg 04/21/22 09:54 04/21/22 12:11 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 04/21/22 09:54 04/21/22 12:11 o-Xylene <0.00200 U 0.00200 mg/Kg 04/21/22 09:54 04/21/22 12:11 Xylenes, Total <0.00400 U 0.00400 mg/Kg 04/21/22 09:54 04/21/22 12:11

MB MB

Surrogate	%Recovery Q	ualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64 S	1-	70 - 130	04/21/22 09:54	04/21/22 12:11	1
1.4-Difluorobenzene (Surr)	89	;	70 - 130	04/21/22 09:54	04/21/22 12:11	1

**Analysis Batch: 23884** 

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 23912

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08772		mg/Kg		88	70 - 130	
Toluene	0.100	0.08660		mg/Kg		87	70 - 130	
Ethylbenzene	0.100	0.08794		mg/Kg		88	70 - 130	
m-Xylene & p-Xylene	0.200	0.1768		mg/Kg		88	70 - 130	
o-Xylene	0.100	0.08664		mg/Kg		87	70 - 130	

LCS LCS

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 82 70 - 130

**Eurofins Carlsbad** 

Lab Sample ID: LCS 880-23912/1-A **Matrix: Solid** 

Released to Imaging: 6/27/2022 10:49:41 AM

Client: Ensolum Project/Site: Los Dos Medenos

Job ID: 890-2197-1 SDG: 03E1558007

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

Lab Sample ID: LCS 880-23912/1-A **Matrix: Solid** 

Lab Sample ID: LCSD 880-23912/2-A

**Analysis Batch: 23884** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** Prep Batch: 23912

LCS LCS

Limits Surrogate %Recovery Qualifier 70 - 130 1,4-Difluorobenzene (Surr) 10 S1-

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

**Matrix: Solid** 

Analyte

Benzene

Toluene

**Analysis Batch: 23884** 

Prep Batch: 23912 Spike LCSD LCSD %Rec **RPD** Added Result Qualifier Limits RPD Limit Unit D %Rec 0.100 0.09280 mg/Kg 93 70 - 130 6 35 0.100 0.08850 mg/Kg 89 70 - 130 2 35

Ethylbenzene 0.09034 70 - 130 35 0.100 mg/Kg 90 3 m-Xylene & p-Xylene 0.200 0.1794 mg/Kg 90 70 - 130 35 o-Xylene 0.100 0.08836 mg/Kg 88 70 - 130 35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	82	70 - 130
1,4-Difluorobenzene (Surr)	100	70 - 130

Lab Sample ID: 880-13710-A-10-E MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Prep Type: Total/NA **Analysis Batch: 23884** Prep Batch: 23912

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.1071		mg/Kg	_	107	70 - 130	
Toluene	<0.00200	U	0.0998	0.09008		mg/Kg		90	70 - 130	
Ethylbenzene	<0.00200	U	0.0998	0.07967		mg/Kg		80	70 - 130	
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1625		mg/Kg		81	70 - 130	
o-Xylene	<0.00200	U	0.0998	0.07941		mg/Kg		80	70 - 130	

MS MS

Surrogate	%Recovery C	ualifier	Limits
4-Bromofluorobenzene (Surr)	86		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-13710-A-10-F MSD

**Matrix: Solid** 

**Analysis Batch: 23884** 

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

Prep Batch: 23912

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0996	0.1044		mg/Kg		105	70 - 130	3	35
Toluene	<0.00200	U	0.0996	0.09975		mg/Kg		100	70 - 130	10	35
Ethylbenzene	<0.00200	U	0.0996	0.09748		mg/Kg		98	70 - 130	20	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1960		mg/Kg		98	70 - 130	19	35
o-Xylene	<0.00200	U	0.0996	0.09803		mg/Kg		98	70 - 130	21	35

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	94	70 - 130
1,4-Difluorobenzene (Surr)	107	70 - 130

Client: Ensolum Job ID: 890-2197-1 Project/Site: Los Dos Medenos SDG: 03E1558007

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

Lab Sample ID: MB 880-23780/1-A

Lab Sample ID: LCS 880-23780/2-A

Lab Sample ID: LCSD 880-23780/3-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 23761** 

**Analysis Batch: 23761** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 23780

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/19/22 10:31	04/19/22 19:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/19/22 10:31	04/19/22 19:58	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/19/22 10:31	04/19/22 19:58	1
	140	140						

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98	·	70 - 130	04/19/22 10:31	04/19/22 19:58	1
o-Terphenyl	120		70 - 130	04/19/22 10:31	04/19/22 19:58	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 23780

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	1036		mg/Kg		104	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	835.6		mg/Kg		84	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	' Limits
1-Chlorooctane	92	70 - 130
o-Terphenyl	108	70 - 130

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Prep Batch: 23780

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1010		mg/Kg		101	70 - 130	2	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	840.2		mg/Kg		84	70 - 130	1	20
C10-C28)									

C10-C28)

**Matrix: Solid** 

**Analysis Batch: 23761** 

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	100	70 - 130
o-Terphenyl	116	70 - 130

Lab Sample ID: 880-13850-A-21-B MS **Client Sample ID: Matrix Spike** 

**Matrix: Solid** 

**Analysis Batch: 23761** 

Prep Type: Total/NA Prep Batch: 23780

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <49.9 U 1000 866.7 Gasoline Range Organics mg/Kg 84 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 1000 812.9 mg/Kg 79 70 - 130

C10-C28)

## **QC Sample Results**

Client: Ensolum Job ID: 890-2197-1 Project/Site: Los Dos Medenos SDG: 03E1558007

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

Lab Sample ID: 880-13850-A-21-B MS

**Matrix: Solid** 

**Analysis Batch: 23761** 

Client Sample ID: Matrix Spike

**Prep Type: Total/NA** 

Prep Batch: 23780

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 82 70 - 130 o-Terphenyl 90 70 - 130

Lab Sample ID: 880-13850-A-21-C MSD

Analysis Batch: 23761

**Matrix: Solid** 

Alialysis Dalcii. 23/01									Fieb	Jaicii. 4	23700	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	802.0		mg/Kg		78	70 - 130	8	20	
Diesel Range Organics (Over	<49.9	U	998	745.7		mg/Kg		73	70 - 130	9	20	

C10-C28)

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	81		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Pren Batch: 23780

## **QC Association Summary**

Job ID: 890-2197-1 Client: Ensolum Project/Site: Los Dos Medenos SDG: 03E1558007

#### **GC VOA**

#### Prep Batch: 23750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-5	SS05	Total/NA	Solid	5035	
MB 880-23750/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-23750/1-B	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23750/2-B	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2197-5 MS	SS05	Total/NA	Solid	5035	
890-2197-5 MSD	SS05	Total/NA	Solid	5035	

#### **Analysis Batch: 23768**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-1	SS01	Total/NA	Solid	8021B	23784
890-2197-2	SS02	Total/NA	Solid	8021B	23784
890-2197-3	SS03	Total/NA	Solid	8021B	23784
890-2197-4	SS04	Total/NA	Solid	8021B	23784
MB 880-23779/5-A	Method Blank	Total/NA	Solid	8021B	23779
MB 880-23784/5-A	Method Blank	Total/NA	Solid	8021B	23784
LCS 880-23784/1-A	Lab Control Sample	Total/NA	Solid	8021B	23784
LCSD 880-23784/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	23784
890-2195-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	23784
890-2195-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	23784

#### Prep Batch: 23779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-23779/5-A	Method Blank	Total/NA	Solid	5035	

#### Prep Batch: 23784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-1	SS01	Total/NA	Solid	5035	
890-2197-2	SS02	Total/NA	Solid	5035	
890-2197-3	SS03	Total/NA	Solid	5035	
890-2197-4	SS04	Total/NA	Solid	5035	
MB 880-23784/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-23784/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23784/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2195-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-2195-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### **Analysis Batch: 23819**

<b>Lab Sample ID</b> 890-2197-5	Client Sample ID SS05	Prep Type Total/NA	Matrix Solid	Method 8021B	Prep Batch 23750
MB 880-23750/5-B	Method Blank	Total/NA	Solid	8021B	23750
LCS 880-23750/1-B	Lab Control Sample	Total/NA	Solid	8021B	23750
LCSD 880-23750/2-B	Lab Control Sample Dup	Total/NA	Solid	8021B	23750
890-2197-5 MS	SS05	Total/NA	Solid	8021B	23750
890-2197-5 MSD	SS05	Total/NA	Solid	8021B	23750

#### **Analysis Batch: 23836**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-1	SS01	Total/NA	Solid	Total BTEX	
890-2197-2	SS02	Total/NA	Solid	Total BTEX	
890-2197-3	SS03	Total/NA	Solid	Total BTEX	
890-2197-4	SS04	Total/NA	Solid	Total BTEX	

## **QC Association Summary**

Client: Ensolum

Project/Site: Los Dos Medenos

Job ID: 890-2197-1

SDG: 03E1558007

## GC VOA (Continued)

#### **Analysis Batch: 23836 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-5	SS05	Total/NA	Solid	Total BTEX	
890-2197-6	SS06	Total/NA	Solid	Total BTEX	

#### **Analysis Batch: 23884**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-6	SS06	Total/NA	Solid	8021B	23912
MB 880-23912/5-A	Method Blank	Total/NA	Solid	8021B	23912
LCS 880-23912/1-A	Lab Control Sample	Total/NA	Solid	8021B	23912
LCSD 880-23912/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	23912
880-13710-A-10-E MS	Matrix Spike	Total/NA	Solid	8021B	23912
880-13710-A-10-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	23912

#### Prep Batch: 23912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-6	SS06	Total/NA	Solid	5035	_
MB 880-23912/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-23912/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23912/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13710-A-10-E MS	Matrix Spike	Total/NA	Solid	5035	
880-13710-A-10-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### **GC Semi VOA**

#### **Analysis Batch: 23761**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-1	SS01	Total/NA	Solid	8015B NM	23780
890-2197-2	SS02	Total/NA	Solid	8015B NM	23780
890-2197-3	SS03	Total/NA	Solid	8015B NM	23780
890-2197-4	SS04	Total/NA	Solid	8015B NM	23780
890-2197-5	SS05	Total/NA	Solid	8015B NM	23780
890-2197-6	SS06	Total/NA	Solid	8015B NM	23780
MB 880-23780/1-A	Method Blank	Total/NA	Solid	8015B NM	23780
LCS 880-23780/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23780
LCSD 880-23780/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23780
880-13850-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	23780
880-13850-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	23780

#### Prep Batch: 23780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-1	SS01	Total/NA	Solid	8015NM Prep	
890-2197-2	SS02	Total/NA	Solid	8015NM Prep	
890-2197-3	SS03	Total/NA	Solid	8015NM Prep	
890-2197-4	SS04	Total/NA	Solid	8015NM Prep	
890-2197-5	SS05	Total/NA	Solid	8015NM Prep	
890-2197-6	SS06	Total/NA	Solid	8015NM Prep	
MB 880-23780/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23780/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23780/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-13850-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-13850-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## **QC Association Summary**

Client: Ensolum Job ID: 890-2197-1
Project/Site: Los Dos Medenos SDG: 03E1558007

GC Semi VOA

#### **Analysis Batch: 23853**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-1	SS01	Total/NA	Solid	8015 NM	
890-2197-2	SS02	Total/NA	Solid	8015 NM	
890-2197-3	SS03	Total/NA	Solid	8015 NM	
890-2197-4	SS04	Total/NA	Solid	8015 NM	
890-2197-5	SS05	Total/NA	Solid	8015 NM	
890-2197-6	SS06	Total/NA	Solid	8015 NM	

#### HPLC/IC

#### Leach Batch: 24453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-1	SS01	Soluble	Solid	DI Leach	
890-2197-2	SS02	Soluble	Solid	DI Leach	
890-2197-3	SS03	Soluble	Solid	DI Leach	
890-2197-4	SS04	Soluble	Solid	DI Leach	
890-2197-5	SS05	Soluble	Solid	DI Leach	
890-2197-6	SS06	Soluble	Solid	DI Leach	

#### **Analysis Batch: 24454**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2197-1	SS01	Soluble	Solid	300.0	24453
890-2197-2	SS02	Soluble	Solid	300.0	24453
890-2197-3	SS03	Soluble	Solid	300.0	24453
890-2197-4	SS04	Soluble	Solid	300.0	24453
890-2197-5	SS05	Soluble	Solid	300.0	24453
890-2197-6	SS06	Soluble	Solid	300.0	24453

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SDG: 03E1558007

Project/Site: Los Dos Medenos **Client Sample ID: SS01** 

Client: Ensolum

Lab Sample ID: 890-2197-1

Matrix: Solid

Date Collected: 04/13/22 12:00 Date Received: 04/18/22 08:04

	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	23784	04/19/22 13:14	MR	XEN MID
Total/NA	Analysis	8021B		1			23768	04/20/22 03:07	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23836	04/20/22 11:37	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23853	04/20/22 15:20	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	23780 23761	04/19/22 10:31 04/20/22 00:53		XEN MID XEN MID
Soluble Soluble	Leach Analysis	DI Leach 300.0		100	5.04 g 0 mL	50 mL 1.0 mL	24453 24454	04/28/22 16:29 04/29/22 11:48		XEN MID XEN MID

**Client Sample ID: SS02** Lab Sample ID: 890-2197-2 Date Collected: 04/13/22 12:05

Date Received: 04/18/22 08:04

**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			4.98 g	5 mL	23784	04/19/22 13:14	MR	XEN MID
Total/NA	Analysis	8021B		1			23768	04/20/22 03:27	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23836	04/20/22 11:37	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23853	04/20/22 15:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23780	04/19/22 10:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23761	04/20/22 01:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24453	04/28/22 16:29	СН	XEN MID
Soluble	Analysis	300.0		100			24454	04/29/22 12:07	SC	XEN MID

**Client Sample ID: SS03** Lab Sample ID: 890-2197-3 Date Collected: 04/13/22 12:10 **Matrix: Solid** 

Date Received: 04/18/22 08:04

	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	23784	04/19/22 13:14	MR	XEN MID
Total/NA	Analysis	8021B		1			23768	04/20/22 03:48	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23836	04/20/22 11:37	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23853	04/20/22 15:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23780	04/19/22 10:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23761	04/20/22 01:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24453	04/28/22 16:29	СН	XEN MID
Soluble	Analysis	300.0		50			24454	04/29/22 12:13	SC	XEN MID

**Client Sample ID: SS04** Lab Sample ID: 890-2197-4 Date Collected: 04/13/22 12:15 Matrix: Solid

Date Received: 04/18/22 08:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	23784	04/19/22 13:14	MR	XEN MID
Total/NA	Analysis	8021B		1			23768	04/20/22 04:08	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23836	04/20/22 11:37	AJ	XEN MID

Client: Ensolum Job ID: 890-2197-1 Project/Site: Los Dos Medenos SDG: 03E1558007

**Client Sample ID: SS04** Lab Sample ID: 890-2197-4 Date Collected: 04/13/22 12:15

**Matrix: Solid** Date Received: 04/18/22 08:04

	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			23853	04/20/22 15:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23780	04/19/22 10:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23761	04/20/22 02:17	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24453	04/28/22 16:29	CH	XEN MID
Soluble	Analysis	300.0		50			24454	04/29/22 12:20	SC	XEN MID

**Client Sample ID: SS05** Lab Sample ID: 890-2197-5

Date Collected: 04/13/22 12:20 **Matrix: Solid** 

Date Received: 04/18/22 08:04

	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	23750	04/19/22 17:00	MR	XEN MID
Total/NA	Analysis	8021B		1			23819	04/20/22 11:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23836	04/20/22 11:37	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23853	04/20/22 15:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23780	04/19/22 10:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23761	04/20/22 02:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24453	04/28/22 16:29	CH	XEN MID
Soluble	Analysis	300.0		50			24454	04/29/22 12:26	SC	XEN MID

**Client Sample ID: SS06** Lab Sample ID: 890-2197-6 Date Collected: 04/13/22 12:25 **Matrix: Solid** 

Date Received: 04/18/22 08:04

	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	23912	04/21/22 09:54	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23884	04/21/22 23:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23836	04/20/22 11:37	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23853	04/20/22 15:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23780	04/19/22 10:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23761	04/20/22 02:59	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24453	04/28/22 16:29	CH	XEN MID
Soluble	Analysis	300.0		5			24454	04/29/22 12:45	SC	XEN MID

**Laboratory References:** 

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

## **Accreditation/Certification Summary**

Client: Ensolum Job ID: 890-2197-1
Project/Site: Los Dos Medenos SDG: 03E1558007

#### **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	T104704400-21-22	06-30-22
The following analyte:	s are included in this repo	ort but the laboratory is r	not certified by the governing authority.	This list may include analytes for wh
the agency does not	•	,	to continue by the governing dutionty.	This list may include analytes for wi
• • • • • • • • • • • • • • • • • • • •	•	Matrix	Analyte	This list may include analytes for wi
the agency does not o	offer certification.	•	, , ,	This list may include analytes for wi

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## **Method Summary**

Client: Ensolum

Project/Site: Los Dos Medenos

Job ID: 890-2197-1

SDG: 03E1558007

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
3015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### **Laboratory References:**

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

## **Sample Summary**

Client: Ensolum

Project/Site: Los Dos Medenos

Job ID: 890-2197-1 SDG: 03E1558007

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2197-1	SS01	Solid	04/13/22 12:00	04/18/22 08:04	0.5
890-2197-2	SS02	Solid	04/13/22 12:05	04/18/22 08:04	0.5
890-2197-3	SS03	Solid	04/13/22 12:10	04/18/22 08:04	0.5
890-2197-4	SS04	Solid	04/13/22 12:15	04/18/22 08:04	0.5
890-2197-5	SS05	Solid	04/13/22 12:20	04/18/22 08:04	0.5
890-2197-6	SS06	Solid	04/13/22 12:25	04/18/22 08:04	0.5

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Work Order No:

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

**Environment Testing** 

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4/29/2022 (Rev. 1)

Total Line   L	Project Manager:	Tellima	Morrissen		Bill to: (if different)	A	Adrican B	Buker	Work Order	Work Order Comments	
10   10   10   10   10   10   10   10	Company Name:		7		ompany Name:	×	To Ener	ay, Inc.	UST/PST ☐ PRP☐		C Superfund
12	Address:	75 W W	adley Ave 4	wite 240A	ddress:	38	94 € €	Thean Sheet	State of Project:		1
State #85 - 7503   Finals   Characteristics		Midlend, T	x 74705	)	ity, State ZIP:	3	1/s bad		Reporting: Level II Level III	ST	RP   Level IV
10.5		817-683-	2503	Email:	Smon's &		Jum. C	CMC	EDD		er:
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Se Ag SiO <sub>2</sub> Na Sr Hg: 1631 / 245.1 /				the lab, if receiv	ed by 4:30pm	S		-	_	H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na
Se Ag SiO <sub>2</sub> Na Sr Hg: 1631 / 245.1 /	SAMPLE RECEIPT	Temp Blank:			€ No					H <sub>3</sub> PO <sub>4</sub> : HP	
Se Ag SiO <sub>2</sub> Na Sr Hg: 1631 / 245.1 /	Samples Received Intact:	17.1	Thermometer I		-41-10J		(_!			NaHSO 4: NAB	IIS
Se Ag SiO <sub>2</sub> Na Sr Hg: 1631/245.1/	Cooler Custody Seals:	No	Correction Faci		70,0	_	12'			Na 25 20 3: NaS	0 3
Se Ag SiO <sub>2</sub> Na Sr Hg: 1631 / 245.1 /	Sample Custody Seals:	_	Temperature R		2.0		) Si	890-2197 CF	nain of Custody	Zn Acetate+N	aOH: Zn
Se Ag SiO <sub>2</sub> Na Sr TI Sn Hg: 1631/245.1/747/	Total Containers:		Corrected Tem	perature:	7.7	X	<b>P!</b> !			NaOH+Ascorb	ic Acid: SAPC
Se Ag SiO <sub>2</sub> Na Sr TI Sn U V Z Hg: 1631 / 245.1 / 7470 / 747	Sample Identificat		Date Sampled		Grab/ Comp		Chlor			Sample	Comments
Se Ag SiO <sub>2</sub> Na Sr Tl Sn U V 2 Hg: 1631 / 245.1 / 7470 / 747	5501	8			0.5	X -	×				
Se Ag SiO <sub>2</sub> Na Sr Tl Sn U V Z Hg: 1631 / 245.1 / 7470 / 747	2055			205							
Se Ag SiO <sub>2</sub> Na Sr TI Sn U V Z Hg: 1631 / 245.1 / 7470 / 747	5503			1210							
Se Ag SiO <sub>2</sub> Na Sr Tl Sn U V Z Hg: 1631 / 245.1 / 7470 / 747	550			1215							
Se Ag SiO <sub>2</sub> Na Sr Tl Sn U V Z Hg: 1631 / 245.1 / 7470 / 747	5805			1220							
Se Ag SiO <sub>2</sub> Na Sr Tl Sn U V Z Hg: 1631 / 245.1 / 7470 / 747	2506	€	<b>→</b>	5221	<b>→</b>	-> ->	<b>→</b>				
Se Ag SiO <sub>2</sub> Na Sr Tl Sn U V Z Hg: 1631 / 245.1 / 7470 / 747 <sup>2</sup>						1	1				
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eceived by: (Signature)	Total 200.7 / 6010 Circle Method(s) and	200.8 / 6020: Metal(s) to be an		RA 13PPN TCLP / SPL	Texas 11 P 6010 : 8R0	A Sb As Ba	Be B Cd	Ca Cr Co Cu Fe Pb M r Co Cu Pb Mn Mo Ni	¥ ;=		Zn
eceived by: (Signature)	Notice: Signature of this documen of service. Eurofins Xenco will be I. of Eurofins Xenco. A minimum cha	it and relinquishment of san liable only for the cost of san srge of \$85.00 will be applie	iples constitutes a valk nples and shall not ass d to each project and a	d purchase order tume any responsi a charge of \$5 for	from client company: ibility for any losses or each sample submitt.	to Eurofins Xenco, it expenses incurred ed to Eurofins Xenc	by the client if si o, but not analyz	ubcontractors. It assigns standard te uch losses are due to circumstances b red. These terms will be enforced unit	ms and conditions eyond the control essentials are some eyond the control ess previously negotiated.		
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## **Login Sample Receipt Checklist**

 Client: Ensolum
 Job Number: 890-2197-1

 SDG Number: 03E1558007

Login Number: 2197 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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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## **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2197-1 SDG Number: 03E1558007

Login Number: 2197 **List Source: Eurofins Midland** List Creation: 04/19/22 11:38 AM List Number: 2

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 America**

## **ANALYTICAL REPORT**

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2220-1

Laboratory Sample Delivery Group: 03E1558007

Client Project/Site: LOS MEDANOS

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

JURAMER

Authorized for release by: 4/25/2022 3:38:33 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

.....LINKS

Review your project results through

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 6/27/2022 10:49:41 AM

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

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

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Client: Ensolum
Project/Site: LOS MEDANOS
Laboratory Job ID: 890-2220-1
SDG: 03E1558007

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#### **Definitions/Glossary**

Job ID: 890-2220-1 Client: Ensolum Project/Site: LOS MEDANOS SDG: 03E1558007

**Qualifiers** 

**GC VOA** Qualifier **Qualifier Description** 

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

**GC Semi VOA** 

Qualifier **Qualifier Description** 

F1 MS and/or MSD recovery exceeds control limits. 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

%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) MCL

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

Project/Site: LOS MEDANOS

Job ID: 890-2220-1 SDG: 03E1558007

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Job ID: 890-2220-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2220-1

#### Receipt

The samples were received on 4/20/2022 4:34 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 14.8°C

#### **GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-23938 and analytical batch 880-23884 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

#### GC Semi VOA

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-23944 and analytical batch 880-23891 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

#### 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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Client: Ensolum Job ID: 890-2220-1 Project/Site: LOS MEDANOS SDG: 03E1558007

**Client Sample ID: SS07** Lab Sample ID: 890-2220-1 Matrix: Solid

Date Collected: 04/20/22 12:40 Date Received: 04/20/22 16:34

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/21/22 11:12	04/22/22 12:34	1
Toluene	< 0.00199	U	0.00199	mg/Kg		04/21/22 11:12	04/22/22 12:34	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		04/21/22 11:12	04/22/22 12:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/21/22 11:12	04/22/22 12:34	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		04/21/22 11:12	04/22/22 12:34	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/21/22 11:12	04/22/22 12:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			04/21/22 11:12	04/22/22 12:34	1
1,4-Difluorobenzene (Surr)	98		70 - 130			04/21/22 11:12	04/22/22 12:34	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/22/22 13:34	1
Made de 0045 NM - Diagram		0) (00)						
Method: 8015 NM - Diesel Range	•		RL	Unit	D	Drawarad	Amalumad	Dil Fac
Analyte		Qualifier				Prepared	Analyzed	DII Fac
Total TPH	<50.0	U					04/00/00 40:00	
		_	50.0	mg/Kg			04/22/22 10:26	1
Method: 8015B NM - Diesel Ran	ge Organics (D		50.0	mg/Kg			04/22/22 10:26	1
Method: 8015B NM - Diesel Ran Analyte	• •		50.0 <b>RL</b>	mg/Kg Unit	D	Prepared	04/22/22 10:26  Analyzed	Dil Fac
	• •	RO) (GC) Qualifier			<u>D</u>	<b>Prepared</b> 04/21/22 13:57		
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	RO) (GC)  Qualifier	RL	Unit	<u>D</u>	<u>.</u>	Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10	Result   <50.0	RO) (GC) Qualifier U	RL 50.0	<mark>Unit</mark> mg/Kg	<u> </u>	04/21/22 13:57	<b>Analyzed</b> 04/22/22 03:30	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0 <50.0	RO) (GC) Qualifier U U	<b>RL</b> 50.0	unit mg/Kg mg/Kg	<u>D</u>	04/21/22 13:57 04/21/22 13:57	Analyzed 04/22/22 03:30 04/22/22 03:30	<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	RO) (GC) Qualifier U U	RL 50.0 50.0 50.0	unit mg/Kg mg/Kg	<u>D</u>	04/21/22 13:57 04/21/22 13:57 04/21/22 13:57	Analyzed 04/22/22 03:30 04/22/22 03:30 04/22/22 03:30	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate	Result	RO) (GC) Qualifier U U		unit mg/Kg mg/Kg	<u> </u>	04/21/22 13:57 04/21/22 13:57 04/21/22 13:57 <b>Prepared</b>	Analyzed 04/22/22 03:30 04/22/22 03:30 04/22/22 03:30 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	RO) (GC) Qualifier U U Qualifier	RL 50.0 50.0 50.0 Limits 70 - 130	unit mg/Kg mg/Kg	<u>D</u>	04/21/22 13:57 04/21/22 13:57 04/21/22 13:57 <b>Prepared</b> 04/21/22 13:57	Analyzed 04/22/22 03:30 04/22/22 03:30 04/22/22 03:30  Analyzed 04/22/22 03:30	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	RO) (GC) Qualifier U U Qualifier	RL 50.0 50.0 50.0 Limits 70 - 130	unit mg/Kg mg/Kg	<u>D</u>	04/21/22 13:57 04/21/22 13:57 04/21/22 13:57 <b>Prepared</b> 04/21/22 13:57	Analyzed 04/22/22 03:30 04/22/22 03:30 04/22/22 03:30  Analyzed 04/22/22 03:30	Dil Fac  1  1  1  Dil Fac  1

Lab Sample ID: 890-2220-2 **Client Sample ID: SS08** 

Date Collected: 04/20/22 12:45 Date Received: 04/20/22 16:34

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:12	04/22/22 13:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:12	04/22/22 13:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:12	04/22/22 13:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/21/22 11:12	04/22/22 13:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:12	04/22/22 13:00	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/21/22 11:12	04/22/22 13:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			04/21/22 11:12	04/22/22 13:00	1

**Eurofins Carlsbad** 

**Matrix: Solid** 

Job ID: 890-2220-1 SDG: 03E1558007

Project/Site: LOS MEDANOS

**Client Sample ID: SS08** Lab Sample ID: 890-2220-2 Date Collected: 04/20/22 12:45 Matrix: Solid

Date Received: 04/20/22 16:34

Sample Depth: 0.5

Client: Ensolum

Method: 8021B - Volatile Organic	Compounds (	(GC)	(Continued)
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Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94	70 - 130	04/21/22 11:12	04/22/22 13:00	1

#### **Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399		0.00399	mg/Kg			04/22/22 13:34	1

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/21/22 13:57	04/22/22 03:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/21/22 13:57	04/22/22 03:51	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/21/22 13:57	04/22/22 03:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Pi	repared	Analyzed	DII Fac
1-Chlorooctane	106		70 - 130	04/2	1/22 13:57	04/22/22 03:51	1
o-Terphenyl	105		70 - 130	04/2	1/22 13:57	04/22/22 03:51	1

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	215	4.96	mg/Kg			04/21/22 23:05	1

**Client Sample ID: SS09** Lab Sample ID: 890-2220-3

Date Collected: 04/20/22 12:50 Date Received: 04/20/22 16:34

Sample Depth: 0.5

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

		/						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		04/21/22 11:12	04/22/22 13:27	1
Toluene	<0.00198	U	0.00198	mg/Kg		04/21/22 11:12	04/22/22 13:27	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		04/21/22 11:12	04/22/22 13:27	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		04/21/22 11:12	04/22/22 13:27	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		04/21/22 11:12	04/22/22 13:27	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		04/21/22 11:12	04/22/22 13:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			04/21/22 11:12	04/22/22 13:27	1
1,4-Difluorobenzene (Surr)	95		70 - 130			04/21/22 11:12	04/22/22 13:27	1

#### **Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			04/22/22 13:34	1

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9 U	49.9	mg/Kg			04/22/22 10:26	1

**Eurofins Carlsbad** 

**Matrix: Solid** 

Matrix: Solid

Lab Sample ID: 890-2220-3

## **Client Sample Results**

Client: Ensolum Job ID: 890-2220-1 Project/Site: LOS MEDANOS SDG: 03E1558007

**Client Sample ID: SS09** 

Date Collected: 04/20/22 12:50 Date Received: 04/20/22 16:34

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		04/21/22 13:57	04/22/22 04:13	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		04/21/22 13:57	04/22/22 04:13	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/21/22 13:57	04/22/22 04:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			04/21/22 13:57	04/22/22 04:13	1
o-Terphenyl	101		70 - 130			04/21/22 13:57	04/22/22 04:13	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	157		4.95	mg/Kg			04/21/22 23:14	

**Client Sample ID: SS10** Lab Sample ID: 890-2220-4 Date Collected: 04/20/22 12:55 Matrix: Solid

Date Received: 04/20/22 16:34

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		04/21/22 11:12	04/22/22 13:53	1
Toluene	<0.00202	U	0.00202	mg/Kg		04/21/22 11:12	04/22/22 13:53	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/21/22 11:12	04/22/22 13:53	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		04/21/22 11:12	04/22/22 13:53	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/21/22 11:12	04/22/22 13:53	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		04/21/22 11:12	04/22/22 13:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			04/21/22 11:12	04/22/22 13:53	1
1,4-Difluorobenzene (Surr)	96		70 - 130			04/21/22 11:12	04/22/22 13:53	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			04/22/22 13:34	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/22/22 10:26	1
Method: 8015B NM - Diesel Rang	je Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/21/22 13:57	04/22/22 04:35	1
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		04/21/22 13:57	04/22/22 04:35	1
C10-C28)								
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/21/22 13:57	04/22/22 04:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			04/21/22 13:57	04/22/22 04:35	1

## **Client Sample Results**

Client: Ensolum Job ID: 890-2220-1
Project/Site: LOS MEDANOS SDG: 03E1558007

Client Sample ID: SS10 Lab Sample ID: 890-2220-4

Date Collected: 04/20/22 12:55

Date Received: 04/20/22 16:34

Matrix: Solid

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	97.1		4.99	mg/Kg			04/21/22 23:23	1

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## **Surrogate Summary**

Client: Ensolum Job ID: 890-2220-1
Project/Site: LOS MEDANOS SDG: 03E1558007

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-13942-A-1-A MS	Matrix Spike	96	100	
880-13942-A-1-B MSD	Matrix Spike Duplicate	94	99	
890-2220-1	SS07	93	98	
890-2220-2	SS08	93	94	
890-2220-3	SS09	95	95	
890-2220-4	SS10	95	96	
LCS 880-23938/1-A	Lab Control Sample	87	101	
LCSD 880-23938/2-A	Lab Control Sample Dup	86	103	
MB 880-23912/5-A	Method Blank	64 S1-	89	
MB 880-23938/5-A	Method Blank	67 S1-	91	

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
		1CO1	OTPH1						
Lab Sample ID	Client Sample ID	(70-130)	(70-130)						
390-2216-A-2-C MS	Matrix Spike	79	73						
890-2216-A-2-D MSD	Matrix Spike Duplicate	82	75						
390-2220-1	SS07	92	92						
390-2220-2	SS08	106	105						
390-2220-3	SS09	98	101						
390-2220-4	SS10	92	93						
_CS 880-23944/2-A	Lab Control Sample	100	90						
_CSD 880-23944/3-A	Lab Control Sample Dup	104	94						
MB 880-23944/1-A	Method Blank	95	100						

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2220-1 SDG: 03E1558007 Project/Site: LOS MEDANOS

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-23912/5-A

**Matrix: Solid** Analysis Batch: 23884 Client Sample ID: Method Blank

Prep Type: Total/NA
Prep Batch: 23912

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 12:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 12:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 12:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/21/22 09:54	04/21/22 12:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 12:11	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/21/22 09:54	04/21/22 12:11	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64	S1-	70 - 130	04/21/22 09:54	04/21/22 12:11	1
1.4-Difluorobenzene (Surr)	89		70 - 130	04/21/22 09:54	04/21/22 12:11	1

Lab Sample ID: MB 880-23938/5-A

Matrix: Solid

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 23938

Analysis Batch: 23884

	1410	14.15						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:12	04/22/22 03:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:12	04/22/22 03:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:12	04/22/22 03:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/21/22 11:12	04/22/22 03:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:12	04/22/22 03:35	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/21/22 11:12	04/22/22 03:35	1

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Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67	S1-	70 - 130	04/21/22 11:1	2 04/22/22 03:35	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/21/22 11:1	2 04/22/22 03:35	1

Lab Sample ID: LCS 880-23938/1-A

**Matrix: Solid** 

Analysis Batch: 23884

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

Prep Batch: 23938

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09640		mg/Kg		96	70 - 130	
Toluene	0.100	0.09108		mg/Kg		91	70 - 130	
Ethylbenzene	0.100	0.09337		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	0.200	0.1778		mg/Kg		89	70 - 130	
o-Xylene	0.100	0.1152		mg/Kg		115	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	87	70 _ 130
1.4-Difluorobenzene (Surr)	101	70 - 130

Lab Sample ID: LCSD 880-23938/2-A

Matrix: Solid

Analysis Batch: 23884

Client Sample ID: Lab	Control Sample Dup
	Dren Times Tetal/NA

Prep Type: Total/NA

Prep Batch: 23938

	Spike	LCSD LCSD				70 KeC		KPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.08835	mg/Kg		88	70 - 130	9	35	

LCCD LCCD

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#### QC Sample Results

Client: Ensolum Job ID: 890-2220-1 Project/Site: LOS MEDANOS SDG: 03E1558007

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

Lab Sample ID: LCSD 880-23938/2-A

**Matrix: Solid** Analysis Batch: 23884 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 23938

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08353		mg/Kg		84	70 - 130	9	35
Ethylbenzene	0.100	0.08102		mg/Kg		81	70 - 130	14	35
m-Xylene & p-Xylene	0.200	0.1601		mg/Kg		80	70 - 130	10	35
o-Xylene	0.100	0.09035		mg/Kg		90	70 - 130	24	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 880-13942-A-1-A MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Analysis Batch: 23884

Prep Type: Total/NA

Prep Batch: 23938

MS MS %Rec Sample Sample Spike Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits Benzene <0.00200 0.0996 0.08937 90 70 - 130 mg/Kg Toluene <0.00200 U 0.0996 0.09115 92 70 - 130 mg/Kg Ethylbenzene <0.00200 U 0.0996 0.07588 76 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00401 UF1 0.199 0.1269 F1 64 70 - 130 mg/Kg o-Xylene <0.00200 U 0.0996 0.08863 mg/Kg 89 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	96	70 - 130
1,4-Difluorobenzene (Surr)	100	70 - 130

Lab Sample ID: 880-13942-A-1-B MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

Analysis Batch: 23884

Prep Type: Total/NA Prep Batch: 23938

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0992	0.09737		mg/Kg		98	70 - 130	9	35
Toluene	<0.00200	U	0.0992	0.09165		mg/Kg		92	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.0992	0.07959		mg/Kg		80	70 - 130	5	35
m-Xylene & p-Xylene	<0.00401	U F1	0.198	0.1212	F1	mg/Kg		61	70 - 130	5	35
o-Xylene	<0.00200	U	0.0992	0.08874		mg/Kg		89	70 - 130	0	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-23944/1-A

Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 23891 Prep Batch: 23944

мв мв Result Qualifier RL Unit Prepared Gasoline Range Organics <50.0 U 50.0 mg/Kg 04/21/22 13:57 04/21/22 21:44

(GRO)-C6-C10

o-Terphenyl

Client: Ensolum Job ID: 890-2220-1
Project/Site: LOS MEDANOS SDG: 03E1558007

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

Lab Sample ID: MB 880-23944/1-A	Client Sample ID: Method Blank
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 23891	Prep Batch: 23944
MB MB	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/21/22 13:57	04/21/22 21:44	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/21/22 13:57	04/21/22 21:44	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			04/21/22 13:57	04/21/22 21:44	1
o-Terphenyl	100		70 - 130			04/21/22 13:57	04/21/22 21:44	1

Lab Sample ID: LCS 880-23	944/2-A						Client	Sample	ID: Lab Conti	ol Sample
Matrix: Solid									Prep Type	e: Total/NA
Analysis Batch: 23891									Prep Ba	tch: 23944
			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			1000	821.9		mg/Kg		82	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over			1000	972.8		mg/Kg		97	70 - 130	
C10-C28)										
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	100		70 - 130							

_				
Lab Sample ID: LCSD 880-23944/3-A			Client Sample ID: Lab Control Samp	le Dup
Matrix: Solid			Prep Type: To	otal/NA
Analysis Batch: 23891			Prep Batch	: 23944
	Spike	LCSD LCSD	%Rec	RPD

70 - 130

Limit
20
20
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	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	94		70 - 130

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Lab Sample ID: 890-2216-A-2-C MS	Client Sample ID: Matrix Spike

	Sample Sample	Spike	MS MS	%Rec
Analysis Batch: 23891				Prep Batch: 23944
Matrix: Solid				Prep Type: Total/NA
•				•

	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	999	716.6		mg/Kg		70	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	668.0	F1	mg/Kg		64	70 - 130
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	79		70 - 130						

o-Terphenyl 73 70 - 130

### QC Sample Results

Client: Ensolum Job ID: 890-2220-1 Project/Site: LOS MEDANOS SDG: 03E1558007

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

Lab Sample ID: 890-2216-A-2-D MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** Analysis Batch: 23891 Prep Type: Total/NA Prep Batch: 23944

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

**Prep Type: Soluble** 

	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	791.5		mg/Kg		77	70 - 130	10	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U F1	999	706.4	F1	mg/Kg		68	70 - 130	6	20
C10-C28)											

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 82 o-Terphenyl 75 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23900/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 23991** 

мв мв

Analyte	Result Qu	ualifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	5.00	mg/Kg			04/21/22 18:48	1

Lab Sample ID: LCS 880-23900/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 23991** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	245.8	-	mg/Kg		98	90 - 110	 

Lab Sample ID: LCSD 880-23900/3-A

**Matrix: Solid** 

Analysis Batch: 23991

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	245 1		ma/Ka		98	90 - 110		20	

Lab Sample ID: 890-2218-A-6-D MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 23991

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	57.8		248	301.2		ma/Ka		98	90 - 110	

Lab Sample ID: 890-2218-A-6-E MSD

**Matrix: Solid** 

Analysis Batch: 23991

•	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	57.8		248	313.7		mg/Kg		103	90 - 110	4	20

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**Prep Type: Soluble** 

# **QC Association Summary**

Client: Ensolum Job ID: 890-2220-1
Project/Site: LOS MEDANOS SDG: 03E1558007

**GC VOA** 

Analysis Batch: 23884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2220-1	SS07	Total/NA	Solid	8021B	23938
890-2220-2	SS08	Total/NA	Solid	8021B	23938
890-2220-3	SS09	Total/NA	Solid	8021B	23938
890-2220-4	SS10	Total/NA	Solid	8021B	23938
MB 880-23912/5-A	Method Blank	Total/NA	Solid	8021B	23912
MB 880-23938/5-A	Method Blank	Total/NA	Solid	8021B	23938
LCS 880-23938/1-A	Lab Control Sample	Total/NA	Solid	8021B	23938
LCSD 880-23938/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	23938
880-13942-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	23938
880-13942-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	23938

Prep Batch: 23912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-23912/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 23938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2220-1	SS07	Total/NA	Solid	5035	
890-2220-2	SS08	Total/NA	Solid	5035	
890-2220-3	SS09	Total/NA	Solid	5035	
890-2220-4	SS10	Total/NA	Solid	5035	
MB 880-23938/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-23938/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23938/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13942-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-13942-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 24051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-2220-1	SS07	Total/NA	Solid	Total BTEX	
890-2220-2	SS08	Total/NA	Solid	Total BTEX	
890-2220-3	SS09	Total/NA	Solid	Total BTEX	
890-2220-4	SS10	Total/NA	Solid	Total BTEX	

**GC Semi VOA** 

Analysis Batch: 23891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2220-1	SS07	Total/NA	Solid	8015B NM	23944
890-2220-2	SS08	Total/NA	Solid	8015B NM	23944
890-2220-3	SS09	Total/NA	Solid	8015B NM	23944
890-2220-4	SS10	Total/NA	Solid	8015B NM	23944
MB 880-23944/1-A	Method Blank	Total/NA	Solid	8015B NM	23944
LCS 880-23944/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23944
LCSD 880-23944/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23944
890-2216-A-2-C MS	Matrix Spike	Total/NA	Solid	8015B NM	23944
890-2216-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	23944

Prep Batch: 23944

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2220-1	SS07	Total/NA	Solid	8015NM Prep	

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# **QC Association Summary**

Client: Ensolum Job ID: 890-2220-1
Project/Site: LOS MEDANOS SDG: 03E1558007

GC Semi VOA (Continued)

#### Prep Batch: 23944 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2220-2	SS08	Total/NA	Solid	8015NM Prep	
890-2220-3	SS09	Total/NA	Solid	8015NM Prep	
890-2220-4	SS10	Total/NA	Solid	8015NM Prep	
MB 880-23944/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23944/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23944/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2216-A-2-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2216-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 24019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2220-1	SS07	Total/NA	Solid	8015 NM	
890-2220-2	SS08	Total/NA	Solid	8015 NM	
890-2220-3	SS09	Total/NA	Solid	8015 NM	
890-2220-4	SS10	Total/NA	Solid	8015 NM	

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#### Leach Batch: 23900

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2220-1	SS07	Soluble	Solid	DI Leach	
890-2220-2	SS08	Soluble	Solid	DI Leach	
890-2220-3	SS09	Soluble	Solid	DI Leach	
890-2220-4	SS10	Soluble	Solid	DI Leach	
MB 880-23900/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23900/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23900/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2218-A-6-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2218-A-6-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### Analysis Batch: 23991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2220-1	SS07	Soluble	Solid	300.0	23900
890-2220-2	SS08	Soluble	Solid	300.0	23900
890-2220-3	SS09	Soluble	Solid	300.0	23900
890-2220-4	SS10	Soluble	Solid	300.0	23900
MB 880-23900/1-A	Method Blank	Soluble	Solid	300.0	23900
LCS 880-23900/2-A	Lab Control Sample	Soluble	Solid	300.0	23900
LCSD 880-23900/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23900
890-2218-A-6-D MS	Matrix Spike	Soluble	Solid	300.0	23900
890-2218-A-6-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	23900

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Job ID: 890-2220-1 SDG: 03E1558007

Client: Ensolum Project/Site: LOS MEDANOS

Lab Sample ID: 890-2220-1

Matrix: Solid

**Client Sample ID: SS07** Date Collected: 04/20/22 12:40 Date Received: 04/20/22 16:34

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	23938	04/21/22 11:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23884	04/22/22 12:34	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24051	04/22/22 13:34	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24019	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23944	04/21/22 13:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/22/22 03:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23900	04/21/22 09:36	CH	XEN MID
Soluble	Analysis	300.0		1			23991	04/21/22 22:56	CH	XEN MID

**Client Sample ID: SS08** Lab Sample ID: 890-2220-2 Matrix: Solid

Date Collected: 04/20/22 12:45

Date Received: 04/20/22 16:34

	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	23938	04/21/22 11:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23884	04/22/22 13:00	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24051	04/22/22 13:34	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24019	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23944	04/21/22 13:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/22/22 03:51	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	23900	04/21/22 09:36	CH	XEN MID
Soluble	Analysis	300.0		1			23991	04/21/22 23:05	CH	XEN MID

**Client Sample ID: SS09** Lab Sample ID: 890-2220-3

Date Collected: 04/20/22 12:50 Date Received: 04/20/22 16:34

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	23938	04/21/22 11:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23884	04/22/22 13:27	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24051	04/22/22 13:34	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24019	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	23944	04/21/22 13:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/22/22 04:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23900	04/21/22 09:36	CH	XEN MID
Soluble	Analysis	300.0		1			23991	04/21/22 23:14	CH	XEN MID

**Client Sample ID: SS10** Lab Sample ID: 890-2220-4

Date Collected: 04/20/22 12:55 Date Received: 04/20/22 16:34

	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	23938	04/21/22 11:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23884	04/22/22 13:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24051	04/22/22 13:34	AJ	XEN MID

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**Matrix: Solid** 

**Matrix: Solid** 

#### Lab Chronicle

Client: Ensolum Job ID: 890-2220-1
Project/Site: LOS MEDANOS SDG: 03E1558007

Client Sample ID: SS10

Lab Sample ID: 890-2220-4

Matrix: Solid

Date Collected: 04/20/22 12:55 Date Received: 04/20/22 16:34

	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			24019	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23944	04/21/22 13:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/22/22 04:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23900	04/21/22 09:36	CH	XEN MID
Soluble	Analysis	300.0		1			23991	04/21/22 23:23	CH	XEN MID

#### Laboratory References:

XEN 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: 890-2220-1 Project/Site: LOS MEDANOS

SDG: 03E1558007

#### **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	T104704400-21-22	06-30-22
The following analytes the agency does not of	' '	ut 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	
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# **Method Summary**

Client: Ensolum Job ID: 890-2220-1
Project/Site: LOS MEDANOS SDG: 03E1558007

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

#### **Protocol References:**

DI Leach

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Deionized Water Leaching Procedure** 

#### Laboratory References:

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

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XEN MID

ASTM

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# **Sample Summary**

Client: Ensolum

Project/Site: LOS MEDANOS

Job ID: 890-2220-1

SDG: 03E1558007

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2220-1	SS07	Solid	04/20/22 12:40	04/20/22 16:34	0.5
890-2220-2	SS08	Solid	04/20/22 12:45	04/20/22 16:34	0.5
890-2220-3	SS09	Solid	04/20/22 12:50	04/20/22 16:34	0.5
890-2220-4	SS10	Solid	04/20/22 12:55	04/20/22 16:34	0.5

eurofins: **Environment Testing** 

# Chain of Custody

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

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Signature) Received by: (Signature) Date/Time	Relinquished by: (	Date/Time	re)	Recejyed by: (Signature	Recejye	ature) /	Relinquished by: (Signature)	Z.
se terms will be emorced unless previously negotiated.		mple submitte	rge of \$5 for each sa	project and a cha	applied to each	arge of \$85.00 will be	of Eurofins Xenco. A minimum ch	of Euro
tractors. It assigns standard terms and conditions losses are due to circumstances beyond the control	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofine Xenco, its affiliates and subcont of service. Eurofine 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	ent company for any losses	rchase order from cl	stitutes a valid pu id shall not assum	of samples con st of samples ar	t and relinquishment liable only for the co	Signature of this documer ice. Eurofins Xenco will be	Notice:
Mo Ni Se Ag Ti ∪ Hg: 1631 / 245.1 / 7470 / 7471	Sb As Ba Be Cd Cr Co Cu Pb Mn	RA Sb As	TCLP / SPLP 6010: 8RCRA	TCLP / SP	zed	al(s) to be analy	Circle Method(s) and Metal(s) to be analyzed	Circle
e Pb Mg Mn Mo Ni K Se A	Ba Be B Cd Ca Cr Co Cu Fe	Al Sb As Ba	Texas 11	BRCRA 13PPM	8	200.8 / 6020:	Total 200.7 / 6010	5
							Cota	
						1		
	×	×	0.5' G	1255 0	4/20/2022	S	SS10	
	×	×	0.5' G	1250 0	4/20/2022	S	8098	
	×	×	0.5' G	1245 0	4/20/2022	S	SS08	
	×	×	0.5' G	1240 0	4/20/2022	S	SS07	
Sample Comments	BTEX	CHLOI	Depth Comp C	Time Sampled	Date Sampled	on Matrix	Sample Identification	
NaOH+Ascorbic Acid: SAPC	_	RIDE	14.8	emperature:	Corrected Temperature:		Total Containers:	Total (
Zn Acetate+NaOH: Zn		S (E	0	Reading:	Temperature Reading:	Yes No \NA	Sample Custody Seals:	Samp
Chain of Custody	890-2220	-	Ļ	actor:	Correction Factor:	Yes No NA	Cooler Custody Seals:	Coole
		_	W-135-1	2	Thermometer ID:	Yes) No	Samples Received Intact:	Samp
H <sub>3</sub> PO <sub>4</sub> : HP		mete 0.0)	Yes No	Wet Ice:	(Yes) No	Temp Blank:	SAMPLE RECEIPT	SAM
H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na		ers	<u> </u>	the lab, if received by 4:30pm				PO#:
			ay received by	TAT starts the day received by	ГӨ	Conner Shore	Sampler's Name:	Samp
ō			2 day TAT	Due Date:	001	CC: 2094371001	Project Location:	Projec
None: NO DI Water: H <sub>2</sub> O		Code	Rush	Routine	7	03E1558007	Project Number:	Projec
ANALYSIS REQUEST Preservative Codes	ANALYSI			Turn Around	S	Los Medanos	Project Name:	Projec
Deliverables: EDD	bbelill@ensolum.com; tmorrissey@ensolum.com	.com; tmor	belill@ensolum	Email: b		337.257.8307		Phone:
Level III L PSI/USI L	Carlsbad, NM 88220	Carlsba	City, State ZIP:	0		TX, 75220	City, State ZIP: Dallas,	City, s
	3104 E. Green Street	3104 E	Address:		y Suite 120:	2351 W Northwest Hwy Suite 1203A		Address:
Program: UST/PST  PRP Brownfields  RRC  Superfund	XTO Energy, Inc.	XTOE	Company Name:	0		Ensolum LLC.		Comp
Work Order Comments	Baker	Adrian Baker	Bill to: (if different)	8		Tacoma Morrissey	Project Manager: Tacon	Projec
www.xenco.com Page Z of 1	10005, 14m (010) 032-1000, 061-8084, 11m (010) 000 0100	18 (OTO) 00E	10009,					
	Et Paso, 12 (915) 303-3443, Edubbon, 12 (906) 64-1250	1A (8 15) 500	בי רשאט			Vellen		
	3443   Johnsk TX (808) 794-1298	El Daso TY (915) 58	n 0000			Yenco		

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**Eurofins Carlsbad** 

1089 N Canal St.

Chain of Custody Record

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**Environment Testing** 

State Zip TX 79701 Deliverable Requested I II III IV Other (specify) Vote Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out 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 complicance to Eurofins Environment Testing South Central LLC. SS07 (890-2220-1) Midland SS10 (890-2220-4) SS09 (890-2220-3) SS08 (890-2220-2) Sample Identification - Client ID (Lab ID) telinquished by Empty Kit Relinquished by ossible Hazard Identification Project Name. LOS MEDANOS Phone 432-704-5440(Tel) Carlsbad NM 88220 Phone 575-988-3199 Fax 575-988-3199 1211 W Florida Ave elinquished by: linquished by urofins Environment Testing South Centr lient Information (Sub Contract Lab) ent Contact: iipping/Receiving \$ Custody Seal No <u>₹</u> なった SC, 20 Project #. 89000093 Date/Time Date/Time Primary Deliverable Rank 2 Phone: fAT Requested (days): Due Date Requested 4/25/2022 Sample Date 4/20/22 4/20/22 4/20/22 4/20/22 Date Mountain 12 45 Mountain Mountain 12 55 Mountain 12 50 Sample 12 40 G=grab) (C=comp, Sample Preservation Code: Type BT=Tissue, A=A Company Company Company Matrix Solid Solid Solid Solid Md qe1 Jessica Kramer@et.eurofinsus.com Kramer Jessica NELAP - Texas lime. Perform MS/MSD (Yes or No) Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Month Special Instructions/QC Requirements Received by: × × 8015MOD\_NM/8015NM\_S\_Prep (MOD) Full TPH Cooler Temperature(s) °C and Other Remarks × × × × 8015MOD\_Calo 300\_ORGFM\_28D/DI\_LEACH Chloride × × × × 8021B/5035FP\_Calc (MOD) BTEX × × × × Analysis Requested × × × Total\_BTEX\_GCV State of Origin
New Mexico Carrier Tracking No(s) Date/Time → X Total Number of containers J DI Water K-EDTA L EDA A HCL
B NaOH
C Na Acetate
C Nitric Acid
E NaHSO4
F MeOH
G Amchlor
H Ascorbic Acid COC No: 890-716 1 Preservation Codes 390-2220-1 Page 1 of 1 QRSF⊃>≩∨ Company Company Ver: 06/08/2021 A Hexane
A None
AsNaO2
Na2O4S
Na2O4S
Na2SO3
RA2SO3
RA2SO3
RISO4
TSP Dodecahydrate other (specify) Acetone

# **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2220-1 SDG Number: 03E1558007

Login Number: 2220 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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

## **Login Sample Receipt Checklist**

Client: Ensolum

Job Number: 890-2220-1 SDG Number: 03E1558007

Login Number: 2220 **List Source: Eurofins Midland** List Number: 2

List Creation: 04/21/22 01:11 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").



# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2221-1

Laboratory Sample Delivery Group: 03E1558007

Client Project/Site: LOS MEDANOS

Revision: 1

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

JURAMER

Authorized for release by: 5/2/2022 9:48:52 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS .....

Review your project results through

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 6/27/2022 10:49:41 AM

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

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

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Client: Ensolum
Project/Site: LOS MEDANOS
Laboratory Job ID: 890-2221-1
SDG: 03E1558007

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# **Definitions/Glossary**

Client: Ensolum Job ID: 890-2221-1 Project/Site: LOS MEDANOS

SDG: 03E1558007

#### **Qualifiers**

**GC VOA** 

Qualifier **Qualifier Description** F1 MS and/or MSD recovery exceeds control limits. S1-Surrogate recovery exceeds control limits, low biased.

U Indicates the analyte was analyzed for but not detected.

#### **GC Semi VOA**

Qualifier **Qualifier Description** S1+ Surrogate recovery exceeds control limits, high biased.

U Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid **CFU** Colony Forming Unit **CNF** Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

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

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit** 

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

**RER** Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

**TNTC** Too Numerous To Count

#### Case Narrative

Client: Ensolum

Project/Site: LOS MEDANOS

Job ID: 890-2221-1

SDG: 03E1558007

Job ID: 890-2221-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2221-1

#### Comments

No additional comments.

#### Revision

The report being provided is a revision of the original report sent on 4/26/2022. The report (revision 1) is being revised to change Sample IDs per Tacoma Morrissey (email)..

#### Receipt

The samples were received on 4/20/2022 4:34 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 14.8° C.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-23912/1-A) and (MB 880-23912/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24111 and analytical batch 880-24110 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

#### GC Semi VOA

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-23947/3-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.

#### **General Chemistry**

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

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

#### **VOA Prep**

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

**Client Sample ID: PH01** 

Lab Sample ID: 890-2221-1 Date Collected: 04/20/22 09:30 Matrix: Solid Date Received: 04/20/22 16:34

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 16:30	1
Toluene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 16:30	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 16:30	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		04/21/22 15:18	04/22/22 16:30	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 16:30	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		04/21/22 15:18	04/22/22 16:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130			04/21/22 15:18	04/22/22 16:30	1
1,4-Difluorobenzene (Surr)	104		70 - 130			04/21/22 15:18	04/22/22 16:30	1
Method: Total BTEX - Total B	TEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			04/22/22 11:15	1
Method: 8015 NM - Diesel Rai Analyte Total TPH	•	Qualifier	RL 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 04/25/22 13:52	Dil Fac
Total TPH					_ =	Frepareu		
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 12:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 12:41	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 12:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			04/21/22 14:06	04/23/22 12:41	1
o-Terphenyl	106		70 - 130			04/21/22 14:06	04/23/22 12:41	1
Method: 300.0 - Anions, Ion C	hromatogra	phy - Solu	ıble					
		Qualifier	RL	Unit				Dil Fac

**Client Sample ID: PH01A** Lab Sample ID: 890-2221-2 Date Collected: 04/20/22 09:35 **Matrix: Solid** 

5.00

mg/Kg

124

Date Received: 04/20/22 16:34

Sample Depth: 2

**Chloride** 

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 16:50	1
Toluene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 16:50	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 16:50	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		04/21/22 15:18	04/22/22 16:50	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 16:50	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		04/21/22 15:18	04/22/22 16:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			04/21/22 15:18	04/22/22 16:50	1

**Eurofins Carlsbad** 

04/25/22 18:33

Job ID: 890-2221-1

Client: Ensolum Project/Site: LOS MEDANOS SDG: 03E1558007

**Client Sample ID: PH01A** Lab Sample ID: 890-2221-2 Date Collected: 04/20/22 09:35

**Matrix: Solid** Date Received: 04/20/22 16:34

Sample Depth: 2

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	104	70 - 130	04/21/22 15:18	04/22/22 16:50	1

#### **Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00403	U	0.00403	ma/l	(a		04/22/22 11:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/25/22 13:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 13:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 13:45	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 13:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	04/21/22 14:06	04/23/22 13:45	1
o-Terphenyl	102		70 - 130	04/21/22 14:06	04/23/22 13:45	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.8	4.99	mg/Kg			04/25/22 20:19	1

Lab Sample ID: 890-2221-3 **Client Sample ID: PH01B Matrix: Solid** 

Date Collected: 04/20/22 09:45 Date Received: 04/20/22 16:34

Sample Depth: 4

Mothod: 9021B	Volatile	Organic	Compounds	(CC)

wethou: 6021B - volatile O	rganic Compo	unas (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 17:11	1
Toluene	< 0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 17:11	1
Ethylbenzene	< 0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 17:11	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/21/22 15:18	04/22/22 17:11	1
o-Xylene	< 0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 17:11	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/21/22 15:18	04/22/22 17:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			04/21/22 15:18	04/22/22 17:11	1
1,4-Difluorobenzene (Surr)	105		70 - 130			04/21/22 15:18	04/22/22 17:11	1

lothod:	Total	DTEV	Total	DTEV	Calculation	n

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399	mg/Kg			04/22/22 11:15	1

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			04/25/22 13:52	1

**Matrix: Solid** 

**Matrix: Solid** 

Lab Sample ID: 890-2221-3

Lab Sample ID: 890-2221-4

Client: Ensolum Job ID: 890-2221-1 Project/Site: LOS MEDANOS SDG: 03E1558007

**Client Sample ID: PH01B** 

Date Collected: 04/20/22 09:45 Date Received: 04/20/22 16:34

Sample Depth: 4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 14:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 14:06	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 14:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			04/21/22 14:06	04/23/22 14:06	1
o-Terphenyl	100		70 - 130			04/21/22 14:06	04/23/22 14:06	1

Method: 300.0 - Anions, Ion Ch	romatography - Solub	ole					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97 U	4.97	mg/Kg			04/25/22 20:28	1

**Client Sample ID: PH02** 

Date Collected: 04/20/22 10:00 Date Received: 04/20/22 16:34

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 19:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 19:01	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 19:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/21/22 15:18	04/22/22 19:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 19:01	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/21/22 15:18	04/22/22 19:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			04/21/22 15:18	04/22/22 19:01	1
1,4-Difluorobenzene (Surr)	102		70 - 130			04/21/22 15:18	04/22/22 19:01	1
Method: Total BTEX - Total B	TEX Calcula	tion						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/22/22 11:15	1
Method: 8015 NM - Diesel Rai	nge Organio	s (DRO) (0	GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/25/22 13:52	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 14:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 14:27	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 14:27	1
	9/ <b>B</b> assysmy	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Quanner	Lilling				, <b>.</b> .,	
Surrogate 1-Chlorooctane	%Recovery 90	<u>Quanner</u>	70 - 130			04/21/22 14:06	04/23/22 14:27	1

Job ID: 890-2221-1

SDG: 03E1558007

**Client Sample ID: PH02** 

Project/Site: LOS MEDANOS

Lab Sample ID: 890-2221-4

Matrix: Solid

Date Collected: 04/20/22 10:00 Date Received: 04/20/22 16:34

Sample Depth: 1

Client: Ensolum

Method: 300.0 - Anions, Ion C	hromatography - Solub	le					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.5	5.05	mg/Kg			04/25/22 20:37	1

Client Sample ID: PH02A Lab Sample ID: 890-2221-5

Date Collected: 04/20/22 10:05 Matrix: Solid

Date Received: 04/20/22 16:34

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 19:22	-
Toluene	< 0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 19:22	
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 19:22	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/21/22 15:18	04/22/22 19:22	
o-Xylene	< 0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 19:22	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/21/22 15:18	04/22/22 19:22	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	101		70 - 130			04/21/22 15:18	04/22/22 19:22	
1,4-Difluorobenzene (Surr)	100		70 - 130			04/21/22 15:18	04/22/22 19:22	
Method: Total BTEX - Total B	TEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/22/22 11:15	
	•		•	lla:4		Drawarad	Analysed	Dile
	•	s (DRO) (G	SC)	Unit	D	Prepared	Analyzed	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH	•	Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 04/25/22 13:52	
Analyte Total TPH	Result   <50.0	Qualifier U	<b>RL</b> 50.0		<u>D</u>	Prepared		
Analyte Total TPH  Method: 8015B NM - Diesel R	Result <50.0	Qualifier U	RL 50.0		<u>D</u>	<u> </u>	04/25/22 13:52	
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte	Result <50.0	Qualifier U ics (DRO) Qualifier	<b>RL</b> 50.0	mg/Kg	_ =	Prepared  04/21/22 14:06		Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics	Result <50.0 ange Organ Result	Qualifier U ics (DRO) Qualifier	RL 50.0	mg/Kg	_ =	Prepared	04/25/22 13:52  Analyzed	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 ange Organ Result	Qualifier U  ics (DRO) Qualifier U	RL 50.0	mg/Kg	_ =	Prepared 04/21/22 14:06	04/25/22 13:52  Analyzed	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10	Result <50.0  ange Organ Result <50.0	Qualifier U  ics (DRO) Qualifier U	(GC) RL 50.0	mg/Kg  Unit mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06	04/25/22 13:52  Analyzed 04/23/22 14:48	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0  ange Organ Result <50.0  <50.0  <50.0	Qualifier U  ics (DRO) Qualifier U  U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06	04/25/22 13:52  Analyzed 04/23/22 14:48 04/23/22 14:48	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier U  ics (DRO) Qualifier U  U	RL 50.0  (GC)  RL 50.0  50.0  50.0	mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06 04/21/22 14:06	04/25/22 13:52  Analyzed 04/23/22 14:48 04/23/22 14:48 04/23/22 14:48	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R 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  ics (DRO) Qualifier U  U	RL 50.0  (GC)  RL 50.0  50.0  50.0  Limits	mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06 04/21/22 14:06 Prepared 04/21/22 14:06	04/25/22 13:52  Analyzed 04/23/22 14:48 04/23/22 14:48 04/23/22 14:48  Analyzed	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result   <50.0	Qualifier U  CS (DRO) Qualifier U  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 04/21/22 14:06 04/21/22 14:06 04/21/22 14:06 Prepared 04/21/22 14:06	04/25/22 13:52  Analyzed 04/23/22 14:48  04/23/22 14:48  Analyzed 04/23/22 14:48	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result	Qualifier U  CS (DRO) Qualifier U  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 04/21/22 14:06 04/21/22 14:06 04/21/22 14:06 Prepared 04/21/22 14:06	04/25/22 13:52  Analyzed 04/23/22 14:48  04/23/22 14:48  Analyzed 04/23/22 14:48	Dil Fa  Dil Fa

**Eurofins Carlsbad** 

**Matrix: Solid** 

Lab Sample ID: 890-2221-6

Job ID: 890-2221-1

Prepared

Analyzed

Lab Sample ID: 890-2221-7

04/21/22 14:06 04/23/22 15:09

04/21/22 14:06 04/23/22 15:09

Client: Ensolum Project/Site: LOS MEDANOS SDG: 03E1558007

**Client Sample ID: PH02B** 

Date Collected: 04/20/22 10:15 Date Received: 04/20/22 16:34

Sample Depth: 4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 19:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 19:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 19:42	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399	mg/Kg		04/21/22 15:18	04/22/22 19:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 19:42	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/21/22 15:18	04/22/22 19:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			04/21/22 15:18	04/22/22 19:42	1
1,4-Difluorobenzene (Surr)	103		70 - 130			04/21/22 15:18	04/22/22 19:42	1
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fa
Method: Total BTEX - Total B Analyte Total BTEX		Qualifier	RL 0.00399	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 04/22/22 11:15	Dil Fac
Analyte	<0.00399	<b>Qualifier</b> U	0.00399		<u>D</u>	Prepared		Dil Fac
Analyte Total BTEX	Result <0.00399	<b>Qualifier</b> U	0.00399		<u>D</u>	Prepared Prepared		Dil Fac
Analyte Total BTEX  Method: 8015 NM - Diesel Ra	Result <0.00399	Qualifier U s (DRO) (Qualifier	0.00399 GC)	mg/Kg		· · ·	04/22/22 11:15	1
Analyte Total BTEX  Method: 8015 NM - Diesel Ra Analyte	Result <0.00399 nge Organic Result <49.9	Qualifier U  s (DRO) (O Qualifier U	0.00399 GC) RL 49.9	mg/Kg		· · ·	04/22/22 11:15  Analyzed	1
Analyte Total BTEX  Method: 8015 NM - Diesel Ra Analyte Total TPH	Result <0.00399  nge Organic Result <49.9  ange Organi	Qualifier U  s (DRO) (O Qualifier U	0.00399 GC) RL 49.9	mg/Kg		· · ·	04/22/22 11:15  Analyzed	Dil Fac
Analyte Total BTEX  Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R	Result <0.00399  nge Organic Result <49.9  ange Organi	Qualifier U  S (DRO) (O Qualifier U  ics (DRO) Qualifier	0.00399  RL 49.9	mg/Kg  Unit mg/Kg	<u>D</u>	Prepared	04/22/22 11:15  Analyzed 04/25/22 13:52  Analyzed	Dil Fac
Analyte Total BTEX  Method: 8015 NM - Diesel Ral Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics	Result <0.00399  nge Organic Result <49.9  ange Organic Result	Qualifier U  S (DRO) (O Qualifier U  ics (DRO) Qualifier U	0.00399  RL 49.9  (GC) RL	mg/Kg  Unit mg/Kg  Unit	<u>D</u>	Prepared  04/21/22 14:06	04/22/22 11:15  Analyzed 04/25/22 13:52  Analyzed	1

Method: 300.0 - Anions,	Ion Chromatography - Soluble
	B 1/ 6 1/6

%Recovery Qualifier

91

102

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.04 U	5.04	mg/Kg			04/25/22 21:12	1

Limits

70 - 130

70 - 130

**Client Sample ID: PH03** Date Collected: 04/20/22 10:20 Date Received: 04/20/22 16:34

Sample Depth: 1

Surrogate

o-Terphenyl

1-Chlorooctane

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 20:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 20:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 20:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/21/22 15:18	04/22/22 20:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 20:03	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/21/22 15:18	04/22/22 20:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			04/21/22 15:18	04/22/22 20:03	1

**Eurofins Carlsbad** 

Dil Fac

**Matrix: Solid** 

Job ID: 890-2221-1

Client: Ensolum Project/Site: LOS MEDANOS SDG: 03E1558007

**Client Sample ID: PH03** Lab Sample ID: 890-2221-7

Date Collected: 04/20/22 10:20 **Matrix: Solid** Date Received: 04/20/22 16:34

Sample Depth: 1

Surrogate	%Recovery Qualifier	Limits	Prepared Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	103	70 - 130	04/21/22 15:18 04/22/22 20:03	

#### **Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00400	U	0.00400	ma/Ka			04/22/22 11:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			04/25/22 13:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		04/21/22 14:06	04/23/22 15:30	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		04/21/22 14:06	04/23/22 15:30	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/21/22 14:06	04/23/22 15:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Q	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	04/21/22 14:06	04/23/22 15:30	1
o-Terphenyl	97		70 - 130	04/21/22 14:06	04/23/22 15:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28.6	4.97	mg/Kg			04/25/22 21:21	1

**Client Sample ID: PH03A** Lab Sample ID: 890-2221-8 **Matrix: Solid** 

Date Collected: 04/20/22 10:35 Date Received: 04/20/22 16:34

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 20:23	1
Toluene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 20:23	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 20:23	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		04/21/22 15:18	04/22/22 20:23	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 20:23	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		04/21/22 15:18	04/22/22 20:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			04/21/22 15:18	04/22/22 20:23	1
1,4-Difluorobenzene (Surr)	106		70 - 130			04/21/22 15:18	04/22/22 20:23	1

Method: Tota	I RTEY	Total RTEY	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00403	U	0.00403	mg/Kg			04/22/22 11:15	1

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9 U	49.9	mg/Kg			04/25/22 13:52	1

**Matrix: Solid** 

**Matrix: Solid** 

Lab Sample ID: 890-2221-8

Lab Sample ID: 890-2221-9

Client: Ensolum Job ID: 890-2221-1

Project/Site: LOS MEDANOS SDG: 03E1558007

**Client Sample ID: PH03A** Date Collected: 04/20/22 10:35 Date Received: 04/20/22 16:34

Sample Depth: 4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 15:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 15:51	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 15:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			04/21/22 14:06	04/23/22 15:51	1
o-Terphenyl	124		70 - 130			04/21/22 14:06	04/23/22 15:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte **Result Qualifier** RL Unit Dil Fac Prepared Analyzed 4.99 04/25/22 21:30 Chloride 8.62 mg/Kg

**Client Sample ID: PH04** Date Collected: 04/20/22 10:40

Date Received: 04/20/22 16:34

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 20:44	1
Toluene	< 0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 20:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 20:44	1
m-Xylene & p-Xylene	< 0.00401	U	0.00401	mg/Kg		04/21/22 15:18	04/22/22 20:44	1
o-Xylene	< 0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 20:44	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		04/21/22 15:18	04/22/22 20:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			04/21/22 15:18	04/22/22 20:44	1
1,4-Difluorobenzene (Surr)	103		70 - 130			04/21/22 15:18	04/22/22 20:44	1
Method: Total BTEX - Total B7 Analyte		tion Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			04/22/22 11:15	1
Method: 8015 NM - Diesel Rar Analyte	_	s (DRO) (G Qualifier	SC) RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/25/22 13:52	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>,</b>	itosait	Qualifier	RL.	Oilit	_			
Gasoline Range Organics	<49.9		49.9	mg/Kg	_ =	04/21/22 14:06	04/23/22 16:11	1
Gasoline Range Organics		U			=		04/23/22 16:11 04/23/22 16:11	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg	=			·
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.9 <49.9	U U U	49.9	mg/Kg		04/21/22 14:06	04/23/22 16:11	1
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 U	49.9 49.9 49.9	mg/Kg		04/21/22 14:06 04/21/22 14:06	04/23/22 16:11 04/23/22 16:11	1

Job ID: 890-2221-1

Client: Ensolum Project/Site: LOS MEDANOS SDG: 03E1558007

**Client Sample ID: PH04** Date Collected: 04/20/22 10:40 Lab Sample ID: 890-2221-9

Date Received: 04/20/22 16:34

Matrix: Solid

Sample Depth: 1

Method: 300.0 - Anions, Ion Ch	romatogra	phy - Solul	ole					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.0		4.99	mg/Kg			04/25/22 21:39	1

Client Sample ID: PH04A Lab Sample ID: 890-2221-10

04/22/22 11:15

04/21/22 14:06 04/23/22 16:32

Date Collected: 04/20/22 10:55 Date Received: 04/20/22 16:34

Matrix: Solid

Sample Depth: 4

Total BTEX

o-Terphenyl

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/21/22 15:18	04/22/22 21:04	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/21/22 15:18	04/22/22 21:04	1
Ethylbenzene	< 0.00201	U	0.00201	mg/Kg		04/21/22 15:18	04/22/22 21:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/21/22 15:18	04/22/22 21:04	1
o-Xylene	< 0.00201	U	0.00201	mg/Kg		04/21/22 15:18	04/22/22 21:04	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/21/22 15:18	04/22/22 21:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			04/21/22 15:18	04/22/22 21:04	1
1,4-Difluorobenzene (Surr)	103		70 - 130			04/21/22 15:18	04/22/22 21:04	1

Method: 8015 NM - Diesel F	Range Organics	(DRO) (GC	)					
Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/25/22 13:52	1
Method: 8015B NM - Diese	l Range Organio	cs (DRO) (G	C)					
Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U –	49.9	mg/Kg		04/21/22 14:06	04/23/22 16:32	1

0.00402

mg/Kg

<0.00402 U

1-Chlorooctane	85		70 - 130		04/21/22 14:06	04/23/22 16:32	
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	04/21/22 14:06	04/23/22 16:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg	04/21/22 14:06	04/23/22 16:32	1
(GRO)-C6-C10				3, 3			

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
	Chloride	<4.96 U	4.96	ma/Ka			04/25/22 21:48		

70 - 130

**Client Sample ID: PH05** Lab Sample ID: 890-2221-11

Date Collected: 04/20/22 12:00 Matrix: Solid Date Received: 04/20/22 16:34

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 21:24	1
Toluene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 21:24	1
Ethylbenzene	< 0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 21:24	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		04/21/22 15:18	04/22/22 21:24	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/21/22 15:18	04/22/22 21:24	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		04/21/22 15:18	04/22/22 21:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			04/21/22 15:18	04/22/22 21:24	1
1,4-Difluorobenzene (Surr)	104		70 - 130			04/21/22 15:18	04/22/22 21:24	1
Method: Total BTEX - Total B	TEX Calcula	tion						
			DI.	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier	RL	Unit	U	riepaieu	Allalyzeu	DII Fac
Analyte Total BTEX	<0.00404		0.00404	mg/Kg		Frepareu	04/22/22 11:15	
	<0.00404	U	0.00404		<u>D</u>	Prepared		1
Total BTEX  Method: 8015 NM - Diesel Rai	<0.00404	s (DRO) (O	0.00404 GC)	mg/Kg		· · ·	04/22/22 11:15	Dil Fac
Total BTEX  Method: 8015 NM - Diesel Rai Analyte	<0.00404  nge Organic Result <50.0	S (DRO) (G	0.00404  GC)  RL  50.0	mg/Kg		· · ·	04/22/22 11:15  Analyzed	1 Dil Fac
Total BTEX  Method: 8015 NM - Diesel Rai Analyte  Total TPH	<0.00404  nge Organic Result <50.0  ange Organi	S (DRO) (G	0.00404  GC)  RL  50.0	mg/Kg		· · ·	04/22/22 11:15  Analyzed	Dil Fac
Total BTEX  Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics	<0.00404  nge Organic Result <50.0  ange Organi	S (DRO) (O Qualifier U	0.00404  GC)  RL  50.0	mg/Kg  Unit mg/Kg	<u>D</u>	Prepared	04/22/22 11:15  Analyzed 04/25/22 13:52	Dil Fac
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<0.00404  nge Organic Result <50.0  ange Organic Result	S (DRO) (O Qualifier U Qualifier U Qualifier U	0.00404  GC)  RL  50.0  (GC)  RL	mg/Kg  Unit mg/Kg  Unit	<u>D</u>	Prepared  Prepared  04/21/22 14:06	04/22/22 11:15  Analyzed 04/25/22 13:52  Analyzed	Dil Fac  Dil Fac
Total BTEX  Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10	<0.00404  nge Organic Result <50.0  ange Organic Result <50.0	S (DRO) (O Qualifier U Gualifier U Gualifi	0.00404  RL 50.0  (GC) RL 50.0	mg/Kg  Unit mg/Kg  Unit mg/Kg	<u>D</u>	Prepared  Prepared  04/21/22 14:06  04/21/22 14:06	04/22/22 11:15  Analyzed 04/25/22 13:52  Analyzed 04/23/22 17:14	Dil Fac Dil Fac
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<0.00404  nge Organic Result <50.0  ange Organic Result <50.0  <50.0	S (DRO) (O Qualifier U Gualifier U U U U	0.00404  RL 50.0  (GC) RL 50.0  50.0	mg/Kg  Unit mg/Kg  Unit mg/Kg  mg/Kg	<u>D</u>	Prepared  Prepared  04/21/22 14:06  04/21/22 14:06	04/22/22 11:15  Analyzed 04/25/22 13:52  Analyzed 04/23/22 17:14 04/23/22 17:14	Dil Fac  Dil Fac  1
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<0.00404  nge Organic Result <50.0  ange Organic Result <50.0  <50.0  <50.0	S (DRO) (O Qualifier U Gualifier U U U U	0.00404  RL 50.0  (GC)  RL 50.0  50.0  50.0	mg/Kg  Unit mg/Kg  Unit mg/Kg  mg/Kg	<u>D</u>	Prepared  04/21/22 14:06  04/21/22 14:06	04/22/22 11:15  Analyzed 04/25/22 13:52  Analyzed 04/23/22 17:14 04/23/22 17:14  Analyzed  Analyzed	Dil Fac  Dil Fac  1  1  1

**Client Sample ID: PH05A** Lab Sample ID: 890-2221-12 Date Collected: 04/20/22 12:15 **Matrix: Solid** 

RL

5.00

Unit

mg/Kg

D

Prepared

Analyzed

04/25/22 21:57

Dil Fac

Result Qualifier

**50.8** 

Date Received: 04/20/22 16:34

Sample Depth: 4

Analyte

**Chloride** 

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 21:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 21:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 21:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/21/22 15:18	04/22/22 21:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:18	04/22/22 21:45	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/21/22 15:18	04/22/22 21:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			04/21/22 15:18	04/22/22 21:45	1

Job ID: 890-2221-1

Client: Ensolum Project/Site: LOS MEDANOS SDG: 03E1558007

**Client Sample ID: PH05A** Lab Sample ID: 890-2221-12

Date Collected: 04/20/22 12:15 **Matrix: Solid** Date Received: 04/20/22 16:34

Sample Depth: 4

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104	70 - 130	04/21/22 15:18	04/22/22 21:45	1

#### **Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	l	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399		ma/Ka			04/22/22 11:15	1

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

Analyte	Result Qua	alifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			04/25/22 13:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 17:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 17:35	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 17:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Quali	lifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91	70 - 130	04/21/22 14:06	04/23/22 17:35	1
o-Terphenyl	101	70 - 130	04/21/22 14:06	04/23/22 17:35	1

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

Analyte	Result Qu	ialifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.4	5.04	mg/Kg			04/25/22 22:23	1

Lab Sample ID: 890-2221-13 Client Sample ID: BH01 **Matrix: Solid** 

Date Collected: 04/20/22 12:00 Date Received: 04/20/22 16:34

Sample Depth: 1

Mothod: 9021B	Volatila	Organic	Compounds	(CC)

Method: 6021B - Volatile O	rganic Compo	unas (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 22:05	1
Toluene	< 0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 22:05	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 22:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/21/22 15:18	04/22/22 22:05	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/21/22 15:18	04/22/22 22:05	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/21/22 15:18	04/22/22 22:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			04/21/22 15:18	04/22/22 22:05	1
1,4-Difluorobenzene (Surr)	104		70 - 130			04/21/22 15:18	04/22/22 22:05	1

Mothod:	Total RTE	Y - Total	RTEY (	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/22/22 11:15	1

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9 U	49.9	mg/Kg			04/25/22 13:52	1

Date Received: 04/20/22 16:34

Client: Ensolum Project/Site: LOS MEDANOS

Job ID: 890-2221-1 SDG: 03E1558007

**Client Sample ID: BH01** Lab Sample ID: 890-2221-13 Date Collected: 04/20/22 12:00

Matrix: Solid

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 17:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 17:56	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/21/22 14:06	04/23/22 17:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			04/21/22 14:06	04/23/22 17:56	1
o-Terphenyl	95		70 - 130			04/21/22 14:06	04/23/22 17:56	1
Method: 300.0 - Anions, Ion C	hromatogra	phy - Solu	ıble					
mountain a training none					_			
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: BH01A Lab Sample ID: 890-2221-14 **Matrix: Solid** 

Date Collected: 04/20/22 12:05

Date Received: 04/20/22 16:34

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/21/22 15:00	04/21/22 23:09	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/21/22 15:00	04/21/22 23:09	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/21/22 15:00	04/21/22 23:09	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/21/22 15:00	04/21/22 23:09	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/21/22 15:00	04/21/22 23:09	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/21/22 15:00	04/21/22 23:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130			04/21/22 15:00	04/21/22 23:09	1
1,4-Difluorobenzene (Surr)	95		70 - 130			04/21/22 15:00	04/21/22 23:09	1
Method: Total BTEX - Total B	ΓEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			04/22/22 11:15	1
Method: 8015 NM - Diesel Rar	nge Organic	s (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/25/22 13:52	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 18:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 18:17	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 18:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			04/21/22 14:06	04/23/22 18:17	1

Job ID: 890-2221-1

Client: Ensolum Project/Site: LOS MEDANOS SDG: 03E1558007

**Client Sample ID: BH01A** Lab Sample ID: 890-2221-14

Date Collected: 04/20/22 12:05 Matrix: Solid Date Received: 04/20/22 16:34

Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	1290		4.95	mg/Kg			04/25/22 22:59	1

Client Sample ID: BH01B Lab Sample ID: 890-2221-15 **Matrix: Solid** 

Date Collected: 04/20/22 12:15 Date Received: 04/20/22 16:34

Sample Depth: 4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/24/22 22:21	04/25/22 03:40	
Toluene	<0.00200	U	0.00200	mg/Kg		04/24/22 22:21	04/25/22 03:40	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/24/22 22:21	04/25/22 03:40	
m-Xylene & p-Xylene	< 0.00399	U	0.00399	mg/Kg		04/24/22 22:21	04/25/22 03:40	
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/24/22 22:21	04/25/22 03:40	
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/24/22 22:21	04/25/22 03:40	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	106		70 - 130			04/24/22 22:21	04/23/22 23:59	
4-Bromofluorobenzene (Surr)	104		70 - 130			04/24/22 22:21	04/25/22 03:40	
1,4-Difluorobenzene (Surr)	101		70 - 130			04/24/22 22:21	04/23/22 23:59	
1,4-Difluorobenzene (Surr)	101		70 - 130			04/24/22 22:21	04/25/22 03:40	
Method: Total BTEX - Total B	TEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Method: 8015 NM - Diesel Rai	_	s (DRO) (0	0.00399 GC)	mg/Kg			04/22/22 11:15	
Total BTEX  Method: 8015 NM - Diesel Rai Analyte  Total TPH	nge Organic	s (DRO) (O		mg/Kg  Unit mg/Kg	<u>D</u>	Prepared	04/22/22 11:15  Analyzed 04/25/22 13:52	
Method: 8015 NM - Diesel Rai Analyte Total TPH	nge Organic Result <49.8	S (DRO) (O Qualifier	RL 49.8	Unit	<u>D</u>	Prepared	Analyzed	
Method: 8015 NM - Diesel Rai Analyte Total TPH Method: 8015B NM - Diesel R	nge Organic Result <49.8	s (DRO) (O Qualifier U	RL 49.8 (GC)	Unitmg/Kg	_ =		Analyzed 04/25/22 13:52	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH Method: 8015B NM - Diesel R Analyte	nge Organic Result <49.8 ange Organ Result	s (DRO) (O Qualifier U	RL 49.8 (GC)	Unit mg/Kg		Prepared	Analyzed 04/25/22 13:52 Analyzed	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH Method: 8015B NM - Diesel R	nge Organic Result <49.8	s (DRO) (O Qualifier U	RL 49.8 (GC)	Unitmg/Kg	_ =	Prepared	Analyzed 04/25/22 13:52	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics	nge Organic Result <49.8 ange Organ Result	S (DRO) (O Qualifier U ics (DRO) Qualifier	RL 49.8 (GC)	Unit mg/Kg	_ =	Prepared 04/21/22 14:06	Analyzed 04/25/22 13:52 Analyzed	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	nge Organic Result <49.8 ange Organ Result <49.8 <49.8	s (DRO) (O Qualifier U ics (DRO) Qualifier U	GC)  RL 49.8  (GC)  RL 49.8  49.8	Unit mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06	Analyzed 04/25/22 13:52  Analyzed 04/23/22 18:38 04/23/22 18:38	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	nge Organic Result <49.8 ange Organ Result <49.8	s (DRO) (O Qualifier U ics (DRO) Qualifier U	(GC)  RL  49.8  RL  49.8	Unit mg/Kg  Unit mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06	Analyzed 04/25/22 13:52  Analyzed 04/23/22 18:38	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	nge Organic Result <49.8 ange Organ Result <49.8 <49.8	s (DRO) (C Qualifier U ics (DRO) Qualifier U	GC)  RL 49.8  (GC)  RL 49.8  49.8	Unit mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06 04/21/22 14:06 Prepared	Analyzed 04/25/22 13:52  Analyzed 04/23/22 18:38 04/23/22 18:38 04/23/22 18:38 Analyzed	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	nge Organic Result <49.8 ange Organ Result <49.8 <49.8 <49.8  %Recovery 90	s (DRO) (C Qualifier U ics (DRO) Qualifier U	RL 49.8  (GC)  RL 49.8  49.8  49.8	Unit mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06 04/21/22 14:06 Prepared	Analyzed 04/25/22 13:52  Analyzed 04/23/22 18:38 04/23/22 18:38 04/23/22 18:38	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	nge Organic Result <49.8 ange Organ Result <49.8 <49.8 <49.8	s (DRO) (C Qualifier U ics (DRO) Qualifier U	GC)  RL 49.8  (GC)  RL 49.8  49.8  49.8  Limits	Unit mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06 04/21/22 14:06 Prepared 04/21/22 14:06	Analyzed 04/25/22 13:52  Analyzed 04/23/22 18:38 04/23/22 18:38 04/23/22 18:38 Analyzed	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	nge Organic Result <49.8 ange Organ Result <49.8 <49.8 <49.8  %Recovery 90 99 Chromatogra	s (DRO) (C Qualifier U ics (DRO) Qualifier U U	GC)  RL 49.8  (GC)  RL 49.8  49.8  49.8  49.8  Limits 70-130 70-130	Unit mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06 04/21/22 14:06 Prepared 04/21/22 14:06	Analyzed 04/25/22 13:52  Analyzed 04/23/22 18:38 04/23/22 18:38  Analyzed 04/23/22 18:38	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH  Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	nge Organic Result <49.8 ange Organ Result <49.8 <49.8 <49.8  %Recovery 90 99 Chromatogra	s (DRO) (C Qualifier U ics (DRO) Qualifier U U	GC)  RL 49.8  (GC)  RL 49.8  49.8  49.8  49.8  Limits 70-130 70-130	Unit mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 04/21/22 14:06 04/21/22 14:06 04/21/22 14:06 Prepared 04/21/22 14:06	Analyzed 04/25/22 13:52  Analyzed 04/23/22 18:38 04/23/22 18:38  Analyzed 04/23/22 18:38	Dil Fa

# **Surrogate Summary**

Client: Ensolum Job ID: 890-2221-1
Project/Site: LOS MEDANOS SDG: 03E1558007

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		DED:	DED74	• • • • • • • • • • • • • • • • • • • •
o Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)	
)-13710-A-10-E MS	Matrix Spike	86	106	
)-13710-A-10-F MSD	Matrix Spike Duplicate	94	107	
)-13850-A-1-H MS	Matrix Spike	102	95	
)-13850-A-1-I MSD	Matrix Spike Duplicate	97	99	
)-13949-A-21-A MS	Matrix Spike	101	106	
)-13949-A-21-B MSD	Matrix Spike Duplicate	99	106	
)-2216-A-1-E MS	Matrix Spike	100	105	
)-2216-A-1-F MSD	Matrix Spike Duplicate	99	106	
)-2221-1	PH01	113	104	
)-2221-2	PH01A	105	104	
)-2221-3	PH01B	104	105	
)-2221-4	PH02	104	102	
)-2221-5	PH02A	101	100	
)-2221-6	PH02B	103	103	
)-2221-7	PH03	101	103	
)-2221-8	PH03A	107	106	
)-2221-9	PH04	104	103	
)-2221-10	PH04A	108	103	
)-2221-11	PH05	107	104	
)-2221-12	PH05A	103	104	
-2221-13	BH01	108	104	
-2221-14	BH01A	86	95	
)-2221-15	BH01B	106	101	
)-2221-15	BH01B	104	101	
S 880-23912/1-A	Lab Control Sample	82	10 S1-	
S 880-23951/1-A	Lab Control Sample	99	101	
S 880-23953/1-A	Lab Control Sample	95	103	
S 880-24111/1-A	Lab Control Sample	97	95	
SD 880-23912/2-A	Lab Control Sample Dup	82	100	
SD 880-23951/2-A	Lab Control Sample Dup	96	104	
SD 880-23953/2-A	Lab Control Sample Dup	96	100	
SD 880-24111/2-A	Lab Control Sample Dup	99	99	
880-23912/5-A	Method Blank	64 S1-	89	
880-23948/5-A	Method Blank	99	101	
880-23951/5-A	Method Blank	98	104	
880-23953/5-A	Method Blank	98	103	
333 20000/0-A	motiod Didink	30	100	

Surrogate Legend

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

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

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2221-1	PH01	95	106	
890-2221-1 MS	PH01	90	94	

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# **Surrogate Summary**

Client: Ensolum Job ID: 890-2221-1 Project/Site: LOS MEDANOS SDG: 03E1558007

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

Matrix: Solid Prep Type: Total/NA

				rogate Recovery (Acceptance Limits)	
		1CO1	OTPH1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
890-2221-1 MSD	PH01	88	92		
890-2221-2	PH01A	91	102		
890-2221-3	PH01B	89	100		
890-2221-4	PH02	90	100		
890-2221-5	PH02A	90	98		
890-2221-6	PH02B	91	102		
890-2221-7	PH03	90	97		
890-2221-8	PH03A	108	124		
890-2221-9	PH04	83	89		
890-2221-10	PH04A	85	90		
890-2221-11	PH05	87	95		
890-2221-12	PH05A	91	101		
890-2221-13	BH01	87	95		
890-2221-14	BH01A	99	112		
890-2221-15	BH01B	90	99		
Surrogate Legend					
1CO = 1-Chlorooctane					

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

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

			Percer	nt Surrogate Recovery (Acceptance Limits)
		1CO2	OTPH2	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
LCS 880-23947/2-A	Lab Control Sample	108	130	
LCSD 880-23947/3-A	Lab Control Sample Dup	110	132 S1+	
MB 880-23947/1-A	Method Blank	88	102	
Surrogate Legend				
1CO = 1-Chlorooctane				

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OTPH = o-Terphenyl

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

Lab Sample ID: MB 880-23912/5-A

**Matrix: Solid** 

**Analysis Batch: 23884** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 23912

	MB I	MB						
Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 12:11	1
Toluene	<0.00200 l	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 12:11	1
Ethylbenzene	<0.00200 l	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 12:11	1
m-Xylene & p-Xylene	<0.00400 L	U	0.00400	mg/Kg		04/21/22 09:54	04/21/22 12:11	1
o-Xylene	<0.00200 l	U	0.00200	mg/Kg		04/21/22 09:54	04/21/22 12:11	1
Xylenes, Total	<0.00400 l	U	0.00400	mg/Kg		04/21/22 09:54	04/21/22 12:11	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64	S1-	70 - 130	04/21/22 09:54	04/21/22 12:11	1
1,4-Difluorobenzene (Surr)	89		70 - 130	04/21/22 09:54	04/21/22 12:11	1

Lab Sample ID: LCS 880-23912/1-A

Matrix: Solid

**Analysis Batch: 23884** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 23912

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08772		mg/Kg		88	70 - 130	
Toluene	0.100	0.08660		mg/Kg		87	70 - 130	
Ethylbenzene	0.100	0.08794		mg/Kg		88	70 - 130	
m-Xylene & p-Xylene	0.200	0.1768		mg/Kg		88	70 - 130	
o-Xylene	0.100	0.08664		mg/Kg		87	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	82		70 - 130
1,4-Difluorobenzene (Surr)	10	S1-	70 - 130

Lab Sample ID: LCSD 880-23912/2-A

**Matrix: Solid** 

**Analysis Batch: 23884** 

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

Prep Batch: 23912

	Spike	LCSD L	.CSD				%Rec		RPD
Analyte	Added	Result Q	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09280		mg/Kg	_	93	70 - 130	6	35
Toluene	0.100	0.08850		mg/Kg		89	70 - 130	2	35
Ethylbenzene	0.100	0.09034		mg/Kg		90	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1794		mg/Kg		90	70 - 130	1	35
o-Xylene	0.100	0.08836		mg/Kg		88	70 - 130	2	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	82		70 - 130
1.4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-13710-A-10-E MS

**Matrix: Solid** 

**Analysis Batch: 23884** 

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

Prep Batch: 23912

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.1071		mg/Kg		107	70 - 130	
Toluene	< 0.00200	U	0.0998	0.09008		mg/Kg		90	70 - 130	

# **QC Sample Results**

Client: Ensolum Job ID: 890-2221-1 Project/Site: LOS MEDANOS SDG: 03E1558007

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

Lab Sample ID: 880-13710-A-10-E MS

Lab Sample ID: 880-13710-A-10-F MSD

**Matrix: Solid** 

**Analysis Batch: 23884** 

Client Sample ID: Matrix Spike

**Prep Type: Total/NA** 

Prep Batch: 23912

Sample	Sample	Spike	MS	MS				%Rec	
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
<0.00200	U	0.0998	0.07967		mg/Kg		80	70 - 130	
<0.00401	U	0.200	0.1625		mg/Kg		81	70 - 130	
<0.00200	U	0.0998	0.07941		mg/Kg		80	70 - 130	
	Result <0.00200 <0.00401	Sample   Sample	Result         Qualifier         Added           <0.00200	Result         Qualifier         Added         Result           <0.00200	Result          Qualifier         Added          Result          Qualifier           <0.00200	Result         Qualifier         Added         Result         Qualifier         Unit           <0.00200	Result Qualifier         Added Added Result          Qualifier Unit mg/Kg         D           <0.00200 U	Result Qualifier         Added Added Result Qualifier         Qualifier Unit Mg/Kg         D %Rec           <0.00200 U	Result          Qualifier         Added          Result          Qualifier          Unit          D /mg/Kg         %Rec Limits           <0.00200

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Client Sample ID: Matrix Spike Duplicate

**Prep Type: Total/NA** 

Prep Batch: 23912

**Matrix: Solid** 

**Analysis Batch: 23884** 

-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0996	0.1044		mg/Kg		105	70 - 130	3	35
Toluene	<0.00200	U	0.0996	0.09975		mg/Kg		100	70 - 130	10	35
Ethylbenzene	<0.00200	U	0.0996	0.09748		mg/Kg		98	70 - 130	20	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1960		mg/Kg		98	70 - 130	19	35
o-Xylene	< 0.00200	U	0.0996	0.09803		mg/Kg		98	70 - 130	21	35

MSD MSD

Surrogate	%Recovery Qual	ifier Limits
4-Bromofluorobenzene (Surr)	94	70 - 130
1,4-Difluorobenzene (Surr)	107	70 - 130

Lab Sample ID: MB 880-23948/5-A

**Matrix: Solid** 

**Analysis Batch: 23987** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 23948

Analyte	Result	Qualifier	RL	Unit I	D Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg	04/21/22 14:40	04/23/22 01:15	1
Toluene	<0.00200	U	0.00200	mg/Kg	04/21/22 14:40	04/23/22 01:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	04/21/22 14:40	04/23/22 01:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	04/21/22 14:40	04/23/22 01:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg	04/21/22 14:40	04/23/22 01:15	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	04/21/22 14:40	04/23/22 01:15	1
E	Benzene Foluene Ethylbenzene n-Xylene & p-Xylene o-Xylene	Colorador   Colo	Senzene	Benzene         <0.00200         U         0.00200           Foluene         <0.00200         U         0.00200           Ethylbenzene         <0.00200         U         0.00200           m-Xylene & p-Xylene         <0.00400         U         0.00400           p-Xylene         <0.00200         U         0.00200	Senzene   <0.00200 U   0.00200 mg/Kg	Benzene         <0.00200	Senzene         <0.00200

MB MB

MD MD

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	04/21/22 14:40 04/23/22 01:15	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/21/22 14:40 04/23/22 01:15	1

Lab Sample ID: MB 880-23951/5-A

**Matrix: Solid** 

**Analysis Batch: 23987** 

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

Prep Batch: 23951

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:01	04/23/22 17:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:01	04/23/22 17:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/21/22 15:01	04/23/22 17:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/21/22 15:01	04/23/22 17:14	1
	Benzene Toluene Ethylbenzene	Analyte         Result           Benzene         <0.00200           Toluene         <0.00200           Ethylbenzene         <0.00200	Benzene	Analyte         Result         Qualifier         RL           Benzene         <0.00200         U         0.00200           Toluene         <0.00200         U         0.00200           Ethylbenzene         <0.00200         U         0.00200	Analyte         Result Benzene         Qualifier         RL O.00200         Unit mg/Kg           Toluene         <0.00200         U 0.00200         mg/Kg           Ethylbenzene         <0.00200         U 0.00200         mg/Kg	Analyte         Result Senzene         Qualifier Senzene         RL Senzene         Unit Mag/Kg         D Senzene           Toluene         <0.00200         U 0.00200         mg/Kg           Ethylbenzene         <0.00200         U 0.00200         mg/Kg	Analyte         Result Qualifier         RL         Unit         D 04/21/22 15:01           Benzene         <0.00200 U 0.00200         mg/Kg         04/21/22 15:01           Toluene         <0.00200 U 0.00200         mg/Kg         04/21/22 15:01           Ethylbenzene         <0.00200 U 0.00200         mg/Kg         04/21/22 15:01	Analyte         Result         Qualifier         RL         Unit         D         Prepared         Analyzed           Benzene         <0.00200         U         0.00200         mg/Kg         04/21/22 15:01         04/23/22 17:14           Toluene         <0.00200         U         0.00200         mg/Kg         04/21/22 15:01         04/23/22 17:14           Ethylbenzene         <0.00200         U         0.00200         mg/Kg         04/21/22 15:01         04/23/22 17:14

Client: Ensolum

Project/Site: LOS MEDANOS

Job ID: 890-2221-1

SDG: 03E1558007

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

Lab Sample ID: MB 880-23951/5-A

**Matrix: Solid** 

**Analysis Batch: 23987** 

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 23951

	IVID	IVID					
Analyte	Result	Qualifier	RL	Unit D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg	04/21/22 15:01	04/23/22 17:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	04/21/22 15:01	04/23/22 17:14	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98	70 - 130	04/21/22 15:01	04/23/22 17:14	1
1,4-Difluorobenzene (Surr)	104	70 - 130	04/21/22 15:01	04/23/22 17:14	1

Lab Sample ID: LCS 880-23951/1-A **Client Sample ID: Lab Control Sample** 

**Matrix: Solid** 

**Analysis Batch: 23987** 

Prep Type: Total/NA

Prep Batch: 23951

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.07802		mg/Kg		78	70 - 130	
Toluene	0.100	0.09379		mg/Kg		94	70 - 130	
Ethylbenzene	0.100	0.09701		mg/Kg		97	70 - 130	
m-Xylene & p-Xylene	0.200	0.1958		mg/Kg		98	70 - 130	
o-Xylene	0.100	0.09895		mg/Kg		99	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifie	er Limits
4-Bromofluorobenzene (Surr)	99	70 - 130
1.4-Difluorobenzene (Surr)	101	70 - 130

Lab Sample ID: LCSD 880-23951/2-A

**Matrix: Solid** 

**Analysis Batch: 23987** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA Prep Batch: 23951

Spike LCSD LCSD %Rec **RPD** Result Qualifier Analyte Added Unit D %Rec Limits RPD Limit Benzene 0.100 0.08535 85 70 - 130 mg/Kg 9 35 Toluene 0.100 0.09393 mg/Kg 94 70 - 130 0 35 Ethylbenzene 0.100 0.09600 mg/Kg 96 70 - 130 35 35 m-Xylene & p-Xylene 0.200 0.1904 mg/Kg 95 70 - 130 3 o-Xylene 0.100 0.09562 mg/Kg 70 - 130 35

LCSD LCSD

Surrogate	%Recovery (	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-13949-A-21-A MS

**Matrix: Solid** 

**Analysis Batch: 23987** 

**Client Sample ID: Matrix Spike** 

**Prep Type: Total/NA** 

Prep Batch: 23951

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.100	0.1123		mg/Kg	_	112	70 - 130	
Toluene	< 0.00199	U	0.100	0.1101		mg/Kg		110	70 - 130	
Ethylbenzene	< 0.00199	U	0.100	0.09898		mg/Kg		99	70 - 130	
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2028		mg/Kg		101	70 - 130	
o-Xylene	<0.00199	U	0.100	0.09483		mg/Kg		94	70 - 130	

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

Lab Sample ID: 880-13949-A-21-A MS

**Matrix: Solid** 

**Analysis Batch: 23987** 

**Client Sample ID: Matrix Spike** 

**Prep Type: Total/NA** 

Prep Batch: 23951

MS MS %Recovery Qualifier Limits Surrogate 4-Bromofluorobenzene (Surr) 101 70 - 130 1,4-Difluorobenzene (Surr) 106 70 - 130

Lab Sample ID: 880-13949-A-21-B MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

**Analysis Batch: 23987** 

**Prep Type: Total/NA** 

Prep Batch: 23951

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.0994	0.1169		mg/Kg		118	70 - 130	4	35
Toluene	<0.00199	U	0.0994	0.1155		mg/Kg		116	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.0994	0.1008		mg/Kg		101	70 - 130	2	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2061		mg/Kg		104	70 - 130	2	35
o-Xylene	<0.00199	U	0.0994	0.09749		mg/Kg		98	70 - 130	3	35

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	99	70 - 130
1,4-Difluorobenzene (Surr)	106	70 - 130

Lab Sample ID: MB 880-23953/5-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 23987** Prep Batch: 23953

MB MB Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Benzene 0.00200 <0.00200 U mg/Kg Toluene <0.00200 U 0.00200 mg/Kg 04/21/22 15:18 04/22/22 13:37 Ethylbenzene <0.00200 U 0.00200 mg/Kg 04/21/22 15:18 04/22/22 13:37 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 04/21/22 15:18 04/22/22 13:37 o-Xylene <0.00200 U 0.00200 mg/Kg 04/21/22 15:18 04/22/22 13:37 Xylenes, Total <0.00400 U 0.00400 mg/Kg 04/21/22 15:18 04/22/22 13:37

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared Analyzed Di	il Fac
4-Bromofluorobenzene (Surr)	98	70 - 130	04/21/22 15:18 04/22/22 13:37	1
1.4-Difluorobenzene (Surr)	103	70 - 130	04/21/22 15:18 04/22/22 13:37	1

Lab Sample ID: LCS 880-23953/1-A Client Sample ID: Lab Control Sample

**Matrix: Solid Analysis Batch: 23987** Prep Batch: 23953

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08351		mg/Kg		84	70 - 130	
Toluene	0.100	0.09267		mg/Kg		93	70 - 130	
Ethylbenzene	0.100	0.09526		mg/Kg		95	70 - 130	
m-Xylene & p-Xylene	0.200	0.1903		mg/Kg		95	70 - 130	
o-Xylene	0.100	0.09413		mg/Kg		94	70 - 130	

LCS LCS

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 95 70 - 130

**Eurofins Carlsbad** 

**Prep Type: Total/NA** 

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

Lab Sample ID: LCS 880-23953/1-A

**Matrix: Solid** 

**Analysis Batch: 23987** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 23953

LCS LCS

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

Lab Sample ID: LCSD 880-23953/2-A

**Matrix: Solid** 

**Analysis Batch: 23987** 

**Client Sample ID: Lab Control Sample Dup** 

**Prep Type: Total/NA** 

Prep Batch: 23953

Spike	LCSD	LCSD				%Rec		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0.100	0.08219		mg/Kg		82	70 - 130	2	35
0.100	0.09657		mg/Kg		97	70 - 130	4	35
0.100	0.09862		mg/Kg		99	70 - 130	3	35
0.200	0.1984		mg/Kg		99	70 - 130	4	35
0.100	0.09882		mg/Kg		99	70 - 130	5	35
	Added 0.100 0.100 0.100 0.200	Added         Result           0.100         0.08219           0.100         0.09657           0.100         0.09862           0.200         0.1984	Added         Result         Qualifier           0.100         0.08219           0.100         0.09657           0.100         0.09862           0.200         0.1984	Added         Result         Qualifier         Unit           0.100         0.08219         mg/Kg           0.100         0.09657         mg/Kg           0.100         0.09862         mg/Kg           0.200         0.1984         mg/Kg	Added         Result         Qualifier         Unit         D           0.100         0.08219         mg/Kg           0.100         0.09657         mg/Kg           0.100         0.09862         mg/Kg           0.200         0.1984         mg/Kg	Added         Result         Qualifier         Unit         D         %Rec           0.100         0.08219         mg/Kg         82           0.100         0.09657         mg/Kg         97           0.100         0.09862         mg/Kg         99           0.200         0.1984         mg/Kg         99	Added         Result         Qualifier         Unit         D         %Rec         Limits           0.100         0.08219         mg/Kg         82         70 - 130           0.100         0.09657         mg/Kg         97         70 - 130           0.100         0.09862         mg/Kg         99         70 - 130           0.200         0.1984         mg/Kg         99         70 - 130	Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           0.100         0.08219         mg/Kg         82         70 - 130         2           0.100         0.09657         mg/Kg         97         70 - 130         4           0.100         0.09862         mg/Kg         99         70 - 130         3           0.200         0.1984         mg/Kg         99         70 - 130         4

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1.4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-2216-A-1-E MS **Client Sample ID: Matrix Spike** 

**Matrix: Solid** 

**Analysis Batch: 23987** 

Prep Type: Total/NA

Prep Batch: 23953

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.08703		mg/Kg	_	87	70 - 130	
Toluene	<0.00201	U	0.100	0.08753		mg/Kg		87	70 - 130	
Ethylbenzene	<0.00201	U	0.100	0.07868		mg/Kg		79	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1546		mg/Kg		77	70 - 130	
o-Xylene	<0.00201	U	0.100	0.07694		mg/Kg		77	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	100	70 - 130
1,4-Difluorobenzene (Surr)	105	70 - 130

Lab Sample ID: 890-2216-A-1-F MSD

Matrix: Solid

**Analysis Batch: 23987** 

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

Prep Batch: 23953

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U	0.0996	0.08359		mg/Kg		84	70 - 130	4	35
Toluene	<0.00201	U	0.0996	0.08837		mg/Kg		89	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0996	0.08567		mg/Kg		86	70 - 130	9	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1705		mg/Kg		86	70 - 130	10	35
o-Xylene	<0.00201	U	0.0996	0.08421		mg/Kg		85	70 - 130	9	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-24111/5-A

**Matrix: Solid** 

**Analysis Batch: 24110** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 24111

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/24/22 22:21	04/25/22 01:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/24/22 22:21	04/25/22 01:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/24/22 22:21	04/25/22 01:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/24/22 22:21	04/25/22 01:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/24/22 22:21	04/25/22 01:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/24/22 22:21	04/25/22 01:09	1
	MD	MD						

Surrogate	%Recovery Quali	lifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99	70 - 130	04/24/22 22:21	04/25/22 01:09	1
1,4-Difluorobenzene (Surr)	96	70 - 130	04/24/22 22:21	04/25/22 01:09	1

Lab Sample ID: LCS 880-24111/1-A

Matrix: Solid

**Analysis Batch: 24110** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 24111

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.07124		mg/Kg		71	70 - 130	
Toluene	0.100	0.09089		mg/Kg		91	70 - 130	
Ethylbenzene	0.100	0.09549		mg/Kg		95	70 - 130	
m-Xylene & p-Xylene	0.200	0.1938		mg/Kg		97	70 - 130	
o-Xylene	0.100	0.09767		mg/Kg		98	70 - 130	
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LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 880-24111/2-A

**Matrix: Solid** 

**Analysis Batch: 24110** 

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

Prep Batch: 24111

Spike	LCSD LCSD			%Rec		RPD
Added	Result Qualifi	er Unit	D %Rec	Limits	RPD	Limit
0.100	0.07926	mg/Kg	79	70 - 130	11	35
0.100	0.09758	mg/Kg	98	70 - 130	7	35
0.100	0.1017	mg/Kg	102	70 - 130	6	35
0.200	0.2056	mg/Kg	103	70 - 130	6	35
0.100	0.1035	mg/Kg	104	70 - 130	6	35
	Added 0.100 0.100 0.100 0.200	Added         Result         Qualified           0.100         0.07926           0.100         0.09758           0.100         0.1017           0.200         0.2056	Added         Result         Qualifier         Unit           0.100         0.07926         mg/Kg           0.100         0.09758         mg/Kg           0.100         0.1017         mg/Kg           0.200         0.2056         mg/Kg	Added         Result         Qualifier         Unit         D         %Rec           0.100         0.07926         mg/Kg         79           0.100         0.09758         mg/Kg         98           0.100         0.1017         mg/Kg         102           0.200         0.2056         mg/Kg         103	Added         Result         Qualifier         Unit         D         %Rec         Limits           0.100         0.07926         mg/Kg         79         70 - 130           0.100         0.09758         mg/Kg         98         70 - 130           0.100         0.1017         mg/Kg         102         70 - 130           0.200         0.2056         mg/Kg         103         70 - 130	Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           0.100         0.07926         mg/Kg         79         70 - 130         11           0.100         0.09758         mg/Kg         98         70 - 130         7           0.100         0.1017         mg/Kg         102         70 - 130         6           0.200         0.2056         mg/Kg         103         70 - 130         6

LCSD LCSD

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

Lab Sample ID: 880-13850-A-1-H MS

**Matrix: Solid** 

**Analysis Batch: 24110** 

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

Prep Batch: 24111

	Sample Sample	Spike	MS	MS				%Rec	
Analyte	Result Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200 U	0.100	0.09875		mg/Kg		99	70 - 130	
Toluene	<0.00200 UF1	0.100	0.1308	F1	mg/Kg		131	70 - 130	

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Client: Ensolum Project/Site: LOS MEDANOS

Job ID: 890-2221-1 SDG: 03E1558007

Method: 8021B - Volatile Organic Compounds (GC) (Continued) Lab Sample ID: 880-13850-A-1-H MS

**Matrix: Solid** 

**Analysis Batch: 24110** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 24111

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Ethylbenzene	<0.00200	U	0.100	0.1271		mg/Kg		127	70 - 130		
m-Xylene & p-Xylene	<0.00401	U F1	0.200	0.2702	F1	mg/Kg		135	70 - 130		
o-Xylene	<0.00200	U	0.100	0.1254		mg/Kg		125	70 - 130		
	Ethylbenzene m-Xylene & p-Xylene	Analyte         Result           Ethylbenzene         <0.00200	Ethylbenzene         <0.00200         U           m-Xylene & p-Xylene         <0.00401	Analyte         Result         Qualifier         Added           Ethylbenzene         <0.00200	Analyte         Result Ethylbenzene         Qualifier Value         Added Added Added Value         Result Value           m-Xylene & p-Xylene         <0.00401	Analyte         Result         Qualifier         Added         Result         Qualifier           Ethylbenzene         <0.00200	Analyte         Result Ethylbenzene         Qualifier         Added On 100         Result Qualifier         Qualifier Mg/Kg           m-Xylene & p-Xylene         <0.00401	Analyte         Result Ethylbenzene         Qualifier         Added On 100         Result On 100         Qualifier On 100         Unit On 100         Description           m-Xylene & p-Xylene         <0.00401	Analyte         Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec           Ethylbenzene         <0.00200	Analyte         Result of the properties of the prop	Analyte         Result Ethylbenzene         Qualifier         Added On 1000         Result On 1000         Qualifier On 1000         Qualifier On 1000         Unit On 1000         D %Rec May No 1200         Limits On 1000           m-Xylene & p-Xylene         <0.00401

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

**Client Sample ID: Matrix Spike Duplicate** 

Prep Type: Total/NA

**Matrix: Solid** 

Lab Sample ID: 880-13850-A-1-I MSD

Prep Batch: 24111 **Analysis Batch: 24110** Sample Sample Spike MSD MSD %Rec **RPD** 

Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Benzene <0.00200 U 0.0996 0.1096 mg/Kg 110 70 - 130 10 35 Toluene <0.00200 UF1 0.0996 0.1232 124 70 - 130 35 mg/Kg 6 70 - 130 Ethylbenzene <0.00200 U 0.0996 0.1164 mg/Kg 117 9 35 m-Xylene & p-Xylene <0.00401 UF1 0.199 0.2439 mg/Kg 122 70 - 130 10 35 <0.00200 U 0.0996 o-Xylene 0.1147 mg/Kg 115 70 - 130 9

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-23947/1-A

**Matrix: Solid** 

**Analysis Batch: 24094** 

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

Prep Batch: 23947

	IVID	IVID							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 11:38	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 11:38	1	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/21/22 14:06	04/23/22 11:38	1	

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	$04/21/22 \ 14:06 $	4/23/22 11:38	1
o-Terphenyl	102		70 - 130	04/21/22 14:06 04	4/23/22 11:38	1

Lab Sample ID: LCS 880-23947/2-A

**Matrix: Solid** 

**Analysis Batch: 24094** 

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

Prep Batch: 23947

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	873.0		mg/Kg		87	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1038		mg/Kg		104	70 - 130	
C10-C28)								

Client: Ensolum Job ID: 890-2221-1 Project/Site: LOS MEDANOS SDG: 03E1558007

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

Lab Sample ID: LCS 880-23947/2-A

Lab Sample ID: LCSD 880-23947/3-A

**Matrix: Solid** 

**Analysis Batch: 24094** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 23947

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LCS LCS

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

**Client Sample ID: Lab Control Sample Dup** 

104

**Prep Type: Total/NA** 

70 - 130

**Client Sample ID: PH01** 

**Matrix: Solid Analysis Batch: 24094** Prep Batch: 23947

LCSD LCSD RPD %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 861.5 mg/Kg 86 70 - 130 1 20

1042

mg/Kg

1000

C10-C28)

(GRO)-C6-C10

Diesel Range Organics (Over

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 110 70 - 130

70 - 130 o-Terphenyl 132 S1+

Lab Sample ID: 890-2221-1 MS

**Matrix: Solid** 

**Prep Type: Total/NA Analysis Batch: 24094** Prep Batch: 23947

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Limits Analyte Unit D %Rec <49.9 U Gasoline Range Organics 999 956.1 mg/Kg 94 70 - 130 (GRO)-C6-C10 999 Diesel Range Organics (Over <49.9 U 851.5 mg/Kg 83 70 - 130

C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 90 o-Terphenyl 94 70 - 130

Lab Sample ID: 890-2221-1 MSD **Client Sample ID: PH01** 

**Matrix: Solid Prep Type: Total/NA Analysis Batch: 24094** 

Prep Batch: 23947 Sample Sample Spike MSD MSD %Rec **RPD** 

Result Qualifier Added Result Qualifier Limits **RPD** Limit **Analyte** Unit %Rec Gasoline Range Organics <49.9 U 999 953.6 94 70 - 130 0 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 999 838.8 mg/Kg 82 70 - 130 2 20

C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate

1-Chlorooctane 88 70 - 130 o-Terphenyl 92 70 - 130

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Client: Ensolum Job ID: 890-2221-1 Project/Site: LOS MEDANOS

SDG: 03E1558007

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23943/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 24185** 

MB MB Result Qualifier RL Unit D Analyzed Dil Fac Analyte Prepared 5.00 04/25/22 18:06 Chloride <5.00 U mg/Kg

Lab Sample ID: LCS 880-23943/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 24185** 

Spike LCS LCS %Rec Added Result Qualifier Unit D %Rec Limits Analyte 250 90 - 110 Chloride 254.8 mg/Kg 102

Lab Sample ID: LCSD 880-23943/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 24185** 

Spike LCSD LCSD %Rec **RPD** Added Result Qualifier Limits **RPD** Limit **Analyte** Unit D %Rec Chloride 250 260.4 104 90 - 110 20 mg/Kg

Lab Sample ID: 890-2221-1 MS Client Sample ID: PH01 **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 24185** 

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 250 369.9 124 mg/Kg 90 - 110

Lab Sample ID: 890-2221-1 MSD **Client Sample ID: PH01 Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 24185** 

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Unit %Rec Limits RPD Result Qualifier Limit Chloride 124 250 98 90 - 110 369.3 mg/Kg

Lab Sample ID: 890-2221-11 MS **Client Sample ID: PH05 Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 24185** 

Sample Sample Spike MS MS %Rec Result Qualifier Added Qualifier Analyte Result Unit D %Rec Limits 250 Chloride 50.8 298.1 mg/Kg 99 90 - 110

Lab Sample ID: 890-2221-11 MSD **Client Sample ID: PH05 Prep Type: Soluble** 

**Matrix: Solid** 

Chloride

**Analysis Batch: 24185** Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Added Analyte Result Qualifier D Limits RPD Limit Unit %Rec

297.6

250

50.8

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99

90 - 110

mg/Kg

Client: Ensolum Project/Site: LOS MEDANOS

Job ID: 890-2221-1 SDG: 03E1558007

# **GC VOA**

# Analysis Batch: 23884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-14	BH01A	Total/NA	Solid	8021B	23912
MB 880-23912/5-A	Method Blank	Total/NA	Solid	8021B	23912
LCS 880-23912/1-A	Lab Control Sample	Total/NA	Solid	8021B	23912
LCSD 880-23912/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	23912
880-13710-A-10-E MS	Matrix Spike	Total/NA	Solid	8021B	23912
880-13710-A-10-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	23912

# Prep Batch: 23912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-14	BH01A	Total/NA	Solid	5035	
MB 880-23912/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-23912/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23912/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13710-A-10-E MS	Matrix Spike	Total/NA	Solid	5035	
880-13710-A-10-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

# Prep Batch: 23948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-23948/5-A	Method Blank	Total/NA	Solid	5035	

# Prep Batch: 23951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-23951/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-23951/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23951/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13949-A-21-A MS	Matrix Spike	Total/NA	Solid	5035	
880-13949-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

# Prep Batch: 23953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-1	PH01	Total/NA	Solid	5035	
890-2221-2	PH01A	Total/NA	Solid	5035	
890-2221-3	PH01B	Total/NA	Solid	5035	
890-2221-4	PH02	Total/NA	Solid	5035	
890-2221-5	PH02A	Total/NA	Solid	5035	
890-2221-6	PH02B	Total/NA	Solid	5035	
890-2221-7	PH03	Total/NA	Solid	5035	
890-2221-8	PH03A	Total/NA	Solid	5035	
890-2221-9	PH04	Total/NA	Solid	5035	
890-2221-10	PH04A	Total/NA	Solid	5035	
890-2221-11	PH05	Total/NA	Solid	5035	
890-2221-12	PH05A	Total/NA	Solid	5035	
890-2221-13	BH01	Total/NA	Solid	5035	
MB 880-23953/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-23953/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23953/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2216-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2216-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Client: Ensolum Job ID: 890-2221-1 Project/Site: LOS MEDANOS SDG: 03E1558007

# **GC VOA**

# **Analysis Batch: 23987**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-1	PH01	Total/NA	Solid	8021B	23953
890-2221-2	PH01A	Total/NA	Solid	8021B	23953
890-2221-3	PH01B	Total/NA	Solid	8021B	23953
890-2221-4	PH02	Total/NA	Solid	8021B	23953
890-2221-5	PH02A	Total/NA	Solid	8021B	23953
890-2221-6	PH02B	Total/NA	Solid	8021B	23953
890-2221-7	PH03	Total/NA	Solid	8021B	23953
890-2221-8	PH03A	Total/NA	Solid	8021B	23953
890-2221-9	PH04	Total/NA	Solid	8021B	23953
890-2221-10	PH04A	Total/NA	Solid	8021B	23953
890-2221-11	PH05	Total/NA	Solid	8021B	23953
890-2221-12	PH05A	Total/NA	Solid	8021B	23953
890-2221-13	BH01	Total/NA	Solid	8021B	23953
890-2221-15	BH01B	Total/NA	Solid	8021B	24111
MB 880-23948/5-A	Method Blank	Total/NA	Solid	8021B	23948
MB 880-23951/5-A	Method Blank	Total/NA	Solid	8021B	23951
MB 880-23953/5-A	Method Blank	Total/NA	Solid	8021B	23953
LCS 880-23951/1-A	Lab Control Sample	Total/NA	Solid	8021B	23951
LCS 880-23953/1-A	Lab Control Sample	Total/NA	Solid	8021B	23953
LCSD 880-23951/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	23951
LCSD 880-23953/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	23953
880-13949-A-21-A MS	Matrix Spike	Total/NA	Solid	8021B	23951
880-13949-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	23951
890-2216-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	23953
890-2216-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	23953

# **Analysis Batch: 24025**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-2221-1	PH01	Total/NA	Solid	Total BTEX	
890-2221-2	PH01A	Total/NA	Solid	Total BTEX	
890-2221-3	PH01B	Total/NA	Solid	Total BTEX	
890-2221-4	PH02	Total/NA	Solid	Total BTEX	
890-2221-5	PH02A	Total/NA	Solid	Total BTEX	
890-2221-6	PH02B	Total/NA	Solid	Total BTEX	
890-2221-7	PH03	Total/NA	Solid	Total BTEX	
890-2221-8	PH03A	Total/NA	Solid	Total BTEX	
890-2221-9	PH04	Total/NA	Solid	Total BTEX	
890-2221-10	PH04A	Total/NA	Solid	Total BTEX	
890-2221-11	PH05	Total/NA	Solid	Total BTEX	
890-2221-12	PH05A	Total/NA	Solid	Total BTEX	
890-2221-13	BH01	Total/NA	Solid	Total BTEX	
890-2221-14	BH01A	Total/NA	Solid	Total BTEX	
890-2221-15	BH01B	Total/NA	Solid	Total BTEX	

# **Analysis Batch: 24110**

<b>Lab Sample ID</b> 890-2221-15	Client Sample ID BH01B	Prep Type  Total/NA	Matrix Solid	Method 8021B	Prep Batch 24111
MB 880-24111/5-A	Method Blank	Total/NA	Solid	8021B	24111
LCS 880-24111/1-A	Lab Control Sample	Total/NA	Solid	8021B	24111
LCSD 880-24111/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24111
880-13850-A-1-H MS	Matrix Spike	Total/NA	Solid	8021B	24111

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Client: Ensolum Project/Site: LOS MEDANOS

Job ID: 890-2221-1 SDG: 03E1558007

# **GC VOA (Continued)**

# **Analysis Batch: 24110 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13850-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24111

# Prep Batch: 24111

Lab Sample ID 890-2221-15	Client Sample ID BH01B	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
MB 880-24111/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24111/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24111/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13850-A-1-H MS	Matrix Spike	Total/NA	Solid	5035	
880-13850-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

### **GC Semi VOA**

# Prep Batch: 23947

890-2221-1         PH01         Total/NA         Solid         8015NM Prep           890-2221-2         PH01A         Total/NA         Solid         8015NM Prep           890-2221-3         PH01B         Total/NA         Solid         8015NM Prep           890-2221-4         PH02         Total/NA         Solid         8015NM Prep           890-2221-5         PH02A         Total/NA         Solid         8015NM Prep           890-2221-6         PH02B         Total/NA         Solid         8015NM Prep           890-2221-7         PH03         Total/NA         Solid         8015NM Prep           890-2221-8         PH03A         Total/NA         Solid         8015NM Prep           890-2221-9         PH04         Total/NA         Solid         8015NM Prep           890-2221-10         PH04A         Total/NA         Solid         8015NM Prep           890-2221-11         PH05         Total/NA         Solid         8015NM Prep           890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-3         PH01B         Total/NA         Solid         8015NM Prep           890-2221-4         PH02         Total/NA         Solid         8015NM Prep           890-2221-5         PH02A         Total/NA         Solid         8015NM Prep           890-2221-6         PH02B         Total/NA         Solid         8015NM Prep           890-2221-7         PH03         Total/NA         Solid         8015NM Prep           890-2221-8         PH03A         Total/NA         Solid         8015NM Prep           890-2221-9         PH04         Total/NA         Solid         8015NM Prep           890-2221-10         PH05A         Total/NA         Solid         8015NM Prep           890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA	890-2221-1	PH01	Total/NA	Solid	8015NM Prep	
890-2221-4         PH02         Total/NA         Solid         8015NM Prep           890-2221-5         PH02A         Total/NA         Solid         8015NM Prep           890-2221-6         PH02B         Total/NA         Solid         8015NM Prep           890-2221-7         PH03         Total/NA         Solid         8015NM Prep           890-2221-8         PH03A         Total/NA         Solid         8015NM Prep           890-2221-9         PH04         Total/NA         Solid         8015NM Prep           890-2221-10         PH04A         Total/NA         Solid         8015NM Prep           890-2221-11         PH05         Total/NA         Solid         8015NM Prep           890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA	890-2221-2	PH01A	Total/NA	Solid	8015NM Prep	
890-2221-5         PH02A         Total/NA         Solid         8015NM Prep           890-2221-6         PH02B         Total/NA         Solid         8015NM Prep           890-2221-7         PH03         Total/NA         Solid         8015NM Prep           890-2221-8         PH03A         Total/NA         Solid         8015NM Prep           890-2221-9         PH04         Total/NA         Solid         8015NM Prep           890-2221-10         PH04A         Total/NA         Solid         8015NM Prep           890-2221-11         PH05         Total/NA         Solid         8015NM Prep           890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           B00-2221-1 MS         PH01         Total/NA <td>890-2221-3</td> <td>PH01B</td> <td>Total/NA</td> <td>Solid</td> <td>8015NM Prep</td> <td></td>	890-2221-3	PH01B	Total/NA	Solid	8015NM Prep	
890-2221-6         PH02B         Total/NA         Solid         8015NM Prep           890-2221-7         PH03         Total/NA         Solid         8015NM Prep           890-2221-8         PH03A         Total/NA         Solid         8015NM Prep           890-2221-9         PH04         Total/NA         Solid         8015NM Prep           890-2221-10         PH04A         Total/NA         Solid         8015NM Prep           890-2221-11         PH05         Total/NA         Solid         8015NM Prep           890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-4	PH02	Total/NA	Solid	8015NM Prep	
890-2221-7         PH03         Total/NA         Solid         8015NM Prep           890-2221-8         PH03A         Total/NA         Solid         8015NM Prep           890-2221-9         PH04         Total/NA         Solid         8015NM Prep           890-2221-10         PH04A         Total/NA         Solid         8015NM Prep           890-2221-11         PH05         Total/NA         Solid         8015NM Prep           890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           800-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-5	PH02A	Total/NA	Solid	8015NM Prep	
890-2221-8         PH03A         Total/NA         Solid         8015NM Prep           890-2221-9         PH04         Total/NA         Solid         8015NM Prep           890-2221-10         PH04A         Total/NA         Solid         8015NM Prep           890-2221-11         PH05         Total/NA         Solid         8015NM Prep           890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-6	PH02B	Total/NA	Solid	8015NM Prep	
890-2221-9         PH04         Total/NA         Solid         8015NM Prep           890-2221-10         PH04A         Total/NA         Solid         8015NM Prep           890-2221-11         PH05         Total/NA         Solid         8015NM Prep           890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-7	PH03	Total/NA	Solid	8015NM Prep	
890-2221-10         PH04A         Total/NA         Solid         8015NM Prep           890-2221-11         PH05         Total/NA         Solid         8015NM Prep           890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-8	PH03A	Total/NA	Solid	8015NM Prep	
890-2221-11         PH05         Total/NA         Solid         8015NM Prep           890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-9	PH04	Total/NA	Solid	8015NM Prep	
890-2221-12         PH05A         Total/NA         Solid         8015NM Prep           890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-10	PH04A	Total/NA	Solid	8015NM Prep	
890-2221-13         BH01         Total/NA         Solid         8015NM Prep           890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-11	PH05	Total/NA	Solid	8015NM Prep	
890-2221-14         BH01A         Total/NA         Solid         8015NM Prep           890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-12	PH05A	Total/NA	Solid	8015NM Prep	
890-2221-15         BH01B         Total/NA         Solid         8015NM Prep           MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-13	BH01	Total/NA	Solid	8015NM Prep	
MB 880-23947/1-A         Method Blank         Total/NA         Solid         8015NM Prep           LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-14	BH01A	Total/NA	Solid	8015NM Prep	
LCS 880-23947/2-A         Lab Control Sample         Total/NA         Solid         8015NM Prep           LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	890-2221-15	BH01B	Total/NA	Solid	8015NM Prep	
LCSD 880-23947/3-A         Lab Control Sample Dup         Total/NA         Solid         8015NM Prep           890-2221-1 MS         PH01         Total/NA         Solid         8015NM Prep	MB 880-23947/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
890-2221-1 MS PH01 Total/NA Solid 8015NM Prep	LCS 880-23947/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
·	LCSD 880-23947/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2221-1 MSD PH01 Total/NA Solid 8015NM Prep	890-2221-1 MS	PH01	Total/NA	Solid	8015NM Prep	
	890-2221-1 MSD	PH01	Total/NA	Solid	8015NM Prep	

### **Analysis Batch: 24094**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-1	PH01	Total/NA	Solid	8015B NM	23947
890-2221-2	PH01A	Total/NA	Solid	8015B NM	23947
890-2221-3	PH01B	Total/NA	Solid	8015B NM	23947
890-2221-4	PH02	Total/NA	Solid	8015B NM	23947
890-2221-5	PH02A	Total/NA	Solid	8015B NM	23947
890-2221-6	PH02B	Total/NA	Solid	8015B NM	23947
890-2221-7	PH03	Total/NA	Solid	8015B NM	23947
890-2221-8	PH03A	Total/NA	Solid	8015B NM	23947
890-2221-9	PH04	Total/NA	Solid	8015B NM	23947
890-2221-10	PH04A	Total/NA	Solid	8015B NM	23947
890-2221-11	PH05	Total/NA	Solid	8015B NM	23947
890-2221-12	PH05A	Total/NA	Solid	8015B NM	23947
890-2221-13	BH01	Total/NA	Solid	8015B NM	23947

Client: Ensolum

Project/Site: LOS MEDANOS

Job ID: 890-2221-1

SDG: 03E1558007

# **GC Semi VOA (Continued)**

# **Analysis Batch: 24094 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-14	BH01A	Total/NA	Solid	8015B NM	23947
890-2221-15	BH01B	Total/NA	Solid	8015B NM	23947
MB 880-23947/1-A	Method Blank	Total/NA	Solid	8015B NM	23947
LCS 880-23947/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23947
LCSD 880-23947/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23947
890-2221-1 MS	PH01	Total/NA	Solid	8015B NM	23947
890-2221-1 MSD	PH01	Total/NA	Solid	8015B NM	23947

# **Analysis Batch: 24194**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-1	PH01	Total/NA	Solid	8015 NM	
890-2221-2	PH01A	Total/NA	Solid	8015 NM	
890-2221-3	PH01B	Total/NA	Solid	8015 NM	
890-2221-4	PH02	Total/NA	Solid	8015 NM	
890-2221-5	PH02A	Total/NA	Solid	8015 NM	
890-2221-6	PH02B	Total/NA	Solid	8015 NM	
890-2221-7	PH03	Total/NA	Solid	8015 NM	
890-2221-8	PH03A	Total/NA	Solid	8015 NM	
890-2221-9	PH04	Total/NA	Solid	8015 NM	
890-2221-10	PH04A	Total/NA	Solid	8015 NM	
890-2221-11	PH05	Total/NA	Solid	8015 NM	
890-2221-12	PH05A	Total/NA	Solid	8015 NM	
890-2221-13	BH01	Total/NA	Solid	8015 NM	
890-2221-14	BH01A	Total/NA	Solid	8015 NM	
890-2221-15	BH01B	Total/NA	Solid	8015 NM	

# HPLC/IC

### Leach Batch: 23943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-1	PH01	Soluble	Solid	DI Leach	
890-2221-2	PH01A	Soluble	Solid	DI Leach	
890-2221-3	PH01B	Soluble	Solid	DI Leach	
890-2221-4	PH02	Soluble	Solid	DI Leach	
890-2221-5	PH02A	Soluble	Solid	DI Leach	
890-2221-6	PH02B	Soluble	Solid	DI Leach	
890-2221-7	PH03	Soluble	Solid	DI Leach	
890-2221-8	PH03A	Soluble	Solid	DI Leach	
890-2221-9	PH04	Soluble	Solid	DI Leach	
890-2221-10	PH04A	Soluble	Solid	DI Leach	
890-2221-11	PH05	Soluble	Solid	DI Leach	
390-2221-12	PH05A	Soluble	Solid	DI Leach	
390-2221-13	BH01	Soluble	Solid	DI Leach	
390-2221-14	BH01A	Soluble	Solid	DI Leach	
390-2221-15	BH01B	Soluble	Solid	DI Leach	
MB 880-23943/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23943/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23943/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2221-1 MS	PH01	Soluble	Solid	DI Leach	
390-2221-1 MSD	PH01	Soluble	Solid	DI Leach	
890-2221-11 MS	PH05	Soluble	Solid	DI Leach	

**Eurofins Carlsbad** 

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Client: Ensolum
Project/Site: LOS MEDANOS
SD

Job ID: 890-2221-1 SDG: 03E1558007

# **HPLC/IC (Continued)**

# Leach Batch: 23943 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-11 MSD	PH05	Soluble	Solid	DI Leach	

### **Analysis Batch: 24185**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-1	PH01	Soluble	Solid	300.0	23943
890-2221-2	PH01A	Soluble	Solid	300.0	23943
890-2221-3	PH01B	Soluble	Solid	300.0	23943
890-2221-4	PH02	Soluble	Solid	300.0	23943
890-2221-5	PH02A	Soluble	Solid	300.0	23943
890-2221-6	PH02B	Soluble	Solid	300.0	23943
890-2221-7	PH03	Soluble	Solid	300.0	23943
890-2221-8	PH03A	Soluble	Solid	300.0	23943
890-2221-9	PH04	Soluble	Solid	300.0	23943
890-2221-10	PH04A	Soluble	Solid	300.0	23943
890-2221-11	PH05	Soluble	Solid	300.0	23943
890-2221-12	PH05A	Soluble	Solid	300.0	23943
890-2221-13	BH01	Soluble	Solid	300.0	23943
890-2221-14	BH01A	Soluble	Solid	300.0	23943
890-2221-15	BH01B	Soluble	Solid	300.0	23943
MB 880-23943/1-A	Method Blank	Soluble	Solid	300.0	23943
LCS 880-23943/2-A	Lab Control Sample	Soluble	Solid	300.0	23943
LCSD 880-23943/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23943
890-2221-1 MS	PH01	Soluble	Solid	300.0	23943
890-2221-1 MSD	PH01	Soluble	Solid	300.0	23943
890-2221-11 MS	PH05	Soluble	Solid	300.0	23943
890-2221-11 MSD	PH05	Soluble	Solid	300.0	23943

**Eurofins Carlsbad** 

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Client: Ensolum

Lab Sample ID: 890-2221-1

Matrix: Solid

Date Collected: 04/20/22 09:30 Date Received: 04/20/22 16:34

	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	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 16:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23947	04/21/22 14:06		XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 12:41	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	23943	04/21/22 13:52	CH	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 18:33	CH	XEN MID

Client Sample ID: PH01A

Date Collected: 04/20/22 09:35

Lab Sample ID: 890-2221-2

Matrix: Solid

Date Received: 04/20/22 16:34

Batch Batch Dil Initial Final Batch Prepared Method Number **Prep Type** Type Run **Factor Amount** Amount or Analyzed **Analyst** Lab Total/NA 5035 23953 04/21/22 15:18 MR XEN MID Prep 4.96 g 5 mL Total/NA 8021B 5 mL 23987 04/22/22 16:50 MR XEN MID Analysis 5 mL 1 Total/NA Total BTEX Analysis 1 24025 04/22/22 11:15 AJ XEN MID Total/NA 8015 NM 24194 XEN MID Analysis 1 04/25/22 13:52 AJ Total/NA Prep 8015NM Prep 10.03 g 10 mL 23947 04/21/22 14:06 DM XEN MID Total/NA 8015B NM 24094 04/23/22 13:45 AJ XEN MID Analysis 1 Soluble 23943 04/21/22 13:52 CH XEN MID Leach DI Leach 5.01 g 50 mL 300.0 04/25/22 20:19 CH Soluble Analysis 1 24185 **XEN MID** 

Client Sample ID: PH01B

Date Collected: 04/20/22 09:45

Lab Sample ID: 890-2221-3

Matrix: Solid

Date Received: 04/20/22 16:34

	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	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 17:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 14:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	23943	04/21/22 13:52	CH	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 20:28	CH	XEN MID

Client Sample ID: PH02

Date Collected: 04/20/22 10:00

Lab Sample ID: 890-2221-4

Matrix: Solid

Date Received: 04/20/22 16:34

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 19:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID

Job ID: 890-2221-1

SDG: 03E1558007

Lab Sample ID: 890-2221-4

Matrix: Solid

**Client Sample ID: PH02** Date Collected: 04/20/22 10:00

Date Received: 04/20/22 16:34

Project/Site: LOS MEDANOS

Client: Ensolum

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 14:27	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	23943	04/21/22 13:52	CH	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 20:37	CH	XEN MID

Client Sample ID: PH02A Lab Sample ID: 890-2221-5 Date Collected: 04/20/22 10:05 **Matrix: Solid** 

Date Received: 04/20/22 16:34

	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	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 19:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 14:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23943	04/21/22 13:52	СН	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 20:46	CH	XEN MID

**Client Sample ID: PH02B** Lab Sample ID: 890-2221-6 Date Collected: 04/20/22 10:15 **Matrix: Solid** 

Date Received: 04/20/22 16:34

	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	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 19:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 15:09	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	23943	04/21/22 13:52	CH	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 21:12	CH	XEN MID

**Client Sample ID: PH03** Lab Sample ID: 890-2221-7 Date Collected: 04/20/22 10:20 **Matrix: Solid** 

Date Received: 04/20/22 16:34

Released to Imaging: 6/27/2022 10:49:41 AM

	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	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 20:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.04 g	10 mL	23947 24094	04/21/22 14:06 04/23/22 15:30		XEN MID XEN MID

SDG: 03E1558007

**Client Sample ID: PH03** 

Date Received: 04/20/22 16:34

Project/Site: LOS MEDANOS

Client: Ensolum

Lab Sample ID: 890-2221-7 Date Collected: 04/20/22 10:20

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	23943	04/21/22 13:52	CH	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 21:21	CH	XEN MID

Client Sample ID: PH03A Lab Sample ID: 890-2221-8

Date Collected: 04/20/22 10:35 Matrix: Solid

Date Received: 04/20/22 16:34

	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	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 20:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 15:51	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23943	04/21/22 13:52	CH	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 21:30	CH	XEN MID

Lab Sample ID: 890-2221-9 **Client Sample ID: PH04 Matrix: Solid** 

Date Collected: 04/20/22 10:40 Date Received: 04/20/22 16:34

	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	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 20:44	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 16:11	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23943	04/21/22 13:52	CH	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 21:39	CH	XEN MID

**Client Sample ID: PH04A** Lab Sample ID: 890-2221-10 Date Collected: 04/20/22 10:55 Matrix: Solid

Date Received: 04/20/22 16:34

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 21:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 16:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	23943	04/21/22 13:52	CH	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 21:48	CH	XEN MID

Project/Site: LOS MEDANOS

Client: Ensolum

Lab Sample ID: 890-2221-11

Matrix: Solid

Date Collected: 04/20/22 12:00 Date Received: 04/20/22 16:34

	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	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 21:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 17:14	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	23943	04/21/22 13:52	СН	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 21:57	CH	XEN MID

Client Sample ID: PH05A

Date Collected: 04/20/22 12:15

Lab Sample ID: 890-2221-12

Matrix: Solid

Date Received: 04/20/22 16:34

Batch Batch Dil Initial Final Batch Prepared Method **Prep Type** Type Run **Factor Amount** Amount Number or Analyzed **Analyst** Lab Total/NA 5035 23953 04/21/22 15:18 MR XEN MID Prep 5.01 g 5 mL Total/NA 8021B 5 mL 23987 04/22/22 21:45 MR XEN MID Analysis 5 mL 1 Total/NA Total BTEX Analysis 1 24025 04/22/22 11:15 AJ XEN MID Total/NA 8015 NM XEN MID Analysis 1 24194 04/25/22 13:52 AJ Total/NA Prep 8015NM Prep 10.01 g 10 mL 23947 04/21/22 14:06 DM XEN MID Total/NA 8015B NM 24094 04/23/22 17:35 AJ XEN MID Analysis 1 Soluble 23943 04/21/22 13:52 CH Leach DI Leach 4.96 g 50 mL XEN MID 300.0 04/25/22 22:23 CH Soluble Analysis 1 24185 **XEN MID** 

Client Sample ID: BH01

Date Collected: 04/20/22 12:00

Lab Sample ID: 890-2221-13

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		·	5.03 g	5 mL	23953	04/21/22 15:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/22/22 22:05	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 17:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23943	04/21/22 13:52	CH	XEN MID
Soluble	Analysis	300.0		5			24185	04/25/22 22:32	CH	XEN MID

Client Sample ID: BH01A

Date Collected: 04/20/22 12:05

Lab Sample ID: 890-2221-14

Matrix: Solid

Date Received: 04/20/22 16:34

Date Received: 04/20/22 16:34

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	23912	04/21/22 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23884	04/21/22 23:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID

Job ID: 890-2221-1 SDG: 03E1558007

**Client Sample ID: BH01A** 

Project/Site: LOS MEDANOS

Client: Ensolum

Date Collected: 04/20/22 12:05 Date Received: 04/20/22 16:34

Lab Sample ID: 890-2221-14

**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			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 18:17	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23943	04/21/22 13:52	CH	XEN MID
Soluble	Analysis	300.0		1			24185	04/25/22 22:59	CH	XEN MID

Lab Sample ID: 890-2221-15 **Client Sample ID: BH01B Matrix: Solid** 

Date Collected: 04/20/22 12:15 Date Received: 04/20/22 16:34

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	23987	04/23/22 23:59	MR	XEN MID
Total/NA	Prep	5035			5.01 g	5 mL	24111	04/24/22 22:21	MR	XEN MID
Total/NA	Prep	5035			5.01 g	5 mL	24111	04/24/22 22:21	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24110	04/25/22 03:40	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24025	04/22/22 11:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24194	04/25/22 13:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 18:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	23943	04/21/22 13:52	СН	XEN MID
Soluble	Analysis	300.0		5			24185	04/25/22 23:07	CH	XEN MID

### Laboratory References:

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

# **Accreditation/Certification Summary**

Client: Ensolum Job ID: 890-2221-1
Project/Site: LOS MEDANOS SDG: 03E1558007

# **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	T104704400-21-22	06-30-22
The following englyte	a are included in this rene	art but the laboratory is r	and portified by the governing outhority	This list was include an abite of an
		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for
the agency does not o	offer certification.	•	, , ,	This list may include analytes for
the agency does not on Analysis Method		Matrix	Analyte	I his list may include analytes for the
the agency does not o	offer certification.	•	, , ,	This list may include analytes for

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# **Method Summary**

Client: Ensolum

Project/Site: LOS MEDANOS

Job ID: 890-2221-1

SDG: 03E1558007

Laboratory	
XEN MID	
XEN MID	
YEN MID	

Method	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
3015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
3015NM Prep	Microextraction	SW846	XEN MID
Ol Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### **Laboratory References:**

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

# **Sample Summary**

Client: Ensolum

Project/Site: LOS MEDANOS

Job ID: 890-2221-1

SDG: 03E1558007

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2221-1	PH01	Solid	04/20/22 09:30	04/20/22 16:34	1
890-2221-2	PH01A	Solid	04/20/22 09:35	04/20/22 16:34	2
890-2221-3	PH01B	Solid	04/20/22 09:45	04/20/22 16:34	4
890-2221-4	PH02	Solid	04/20/22 10:00	04/20/22 16:34	1
890-2221-5	PH02A	Solid	04/20/22 10:05	04/20/22 16:34	2
890-2221-6	PH02B	Solid	04/20/22 10:15	04/20/22 16:34	4
890-2221-7	PH03	Solid	04/20/22 10:20	04/20/22 16:34	1
890-2221-8	PH03A	Solid	04/20/22 10:35	04/20/22 16:34	4
890-2221-9	PH04	Solid	04/20/22 10:40	04/20/22 16:34	1
890-2221-10	PH04A	Solid	04/20/22 10:55	04/20/22 16:34	4
890-2221-11	PH05	Solid	04/20/22 12:00	04/20/22 16:34	1
890-2221-12	PH05A	Solid	04/20/22 12:15	04/20/22 16:34	4
890-2221-13	BH01	Solid	04/20/22 12:00	04/20/22 16:34	1
890-2221-14	BH01A	Solid	04/20/22 12:05	04/20/22 16:34	2
890-2221-15	BH01B	Solid	04/20/22 12:15	04/20/22 16:34	4

Xenco **Environment Testing** 

Project Manager:

Tacoma Morrissey

Ensolum LLC.

City, State ZIP: Address: Company Name:

Dallas, TX, 75220

2351 W Northwest Hwy Suite 1203A

Address:

3104 E. Green Street

XTO Energy, Inc.

Carlsbad, NM 88220

City, State ZIP:

Bill to: (if different)

Adrian Baker

Company Name:

# Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (808) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

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www.xenco.com Page 1 of 2
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Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II Devel III PST/UST TRRP Level IV
Deliverables: EDD

Phone:   337.2	337.257.8307		Email:	Email: bbelill@ensolum.com; tmorrissev@ensolum.com	nsolum	.com;	morris	sseyía	ensolur		Deliverables: EDD	100 A	Cuar
Project Name:	Los Medanos	S	Turn.	Turn Around						ANALYSIS RE	SREQUEST	P	Preservative Codes
Project Number:	03E1558007	7	Routine	☑ Rush	0.70	Code	_	-				None: NO	NO DI Water: H <sub>2</sub> O
Project Location:	CC: 2094371001		Due Date:	2 day TAT	Ž	_						Cool: Cool	Cool MeOH: Me
Sampler's Name:	Conner Shore		TAT starts the day received by	day receiv	ed by	_	-	-	<u></u>			HCL: HC	
PO#:		)	the lab, if received by 4:30pm	ived by 4:3	<u> </u>	rs		-				H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub>	H <sub>2</sub> NaOH: Na
SAMPLE RECEIPT	Jeop Blank:	(yes) No	Wet loe:	Yes No	1	ete	.0)		+			H <sub>3</sub> PO <sub>2</sub> : HP	H
Samples Received Intact:	Yes) No	Thermometer ID:	Ē	FOO W			300.					NaHSC	NaHSO4: NABIS
Cooler Custody Seals:	0	Correction Factor:	ctor:	-0.2	Ш	+	PA:	÷	-			Na <sub>2</sub> S <sub>2</sub> C	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>
Sample Custody Seals:	S o	emperature Reading:	Reading:	17.0			5 (E			890-2221 Chain o	hain of Custody	Zn Ace	Zn Acetate+NaOH: Zn
Total Containers:		Corrected Temperature:	mperature:	14.	×					_	-	NaOH	NaOH+Ascorbic Acid: SAPC
Sample Identification	ion Matrix	Date Sampled	Time Sampled	Depth	Grab/ #	Cont	TPH (86	BTEX (				S	Sample Comments
PH01	s	4/20/2022	930	1'	ഒ	>	×	×					
PH01	S	4/20/2022	935	2	G		×	×					
PH01	S	4/20/2022	945	4.	ഒ	-	×	×	-				
PH02	S	4/20/2022	1000	-3.	G		×	×	^				
PH02	S	4/20/2022	1005	S	ഒ		×	×					
PH02	S	4/20/2022	1015	4,	ഒ	-	×	×					
PH03	S	4/20/2022	1020	- <u>;</u>	ဝ	-	×	×					
PH03	ဟ	4/20/2022	1035	4'	၈	-	×	×	$\vdash$				
PH04	S	4/20/2022	1040	7.	ဓ	_	×	×					
PH04	s	4/20/2022	1055	4'	ရ		×	×					
Total 200.7 / 6010	200.8 / 6020:	85	8RCRA 13PPM	- 11	Texas 11	Al Sb	Sb As Ba Be B	a Be	B Cd Ca	Cr Co Cu	Mg Mn Mo Ni H	Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn	I Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	tal(s) to be analy	zed	TCLP / SPLP 6010: 8RCRA	LP 6010	): 8RCF	H .	Sb As Ba	Ba Be	$\delta$	Cr Co Cu Pb Mn Mo	Mo Ni Se 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 subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. Aminimum 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 negotians.	int and relinquishment e liable only for the co tharge of \$85.00 will be	of samples cons st of samples and applied to each i	titutes a valid pi d shall not assu project and a ch	urchase ord me any resp arge of \$5 f	er from ci ponsibility or each sa	for any I	pany to osses o bmitted	Eurofina r expens to Eurof	Xanco, its es incurre ins Xanco,	affiliates and subcontractors d by the client if such losses but not analyzed. These term	tractors. It assigns standard terms and conditions losses are due to circumstances beyond the control see terms will be enforced unless previously negotiated.	rms and conditions s beyond the control previously negotiated.	
Relinquished by: (Signature)	nature)	Received	Received by: (Signature)	ure)		D	Date/Time	me	70	Relinquished by: (Signature)		Received by: (Signature)	Date/Time
Colon		( to ( to	P		4	20.22	ر رو	16342	562				
									4				
									6				Rayland Data: 08/25/2020 Ray. 2020.2
													· · · · · · · · · · · · · · · · · · ·

Phone:

337.257.8307 Dallas, TX, 75220

Email: bbelill@ensolum.com; tmorrissey@ensolum.com

Turn Around

ANALYSIS REQUEST

None: NO

DI Water: H<sub>2</sub>O

**Preservative Codes** 

Deliverables: EDD

☑ Rush

City, State ZIP: Address: Project Manager:

Company Name:

Ensolum LLC. Tacoma Morrissey

2351 W Northwest Hwy Suite 1203A

Address: Company Name: Bill to: (if different)

3104 E. Green Street Carlsbad, NM 88220

XTO Energy, Inc. Adrian Baker

City, State ZIP:

> Due Date: Routine

03E1558007 Los Medanos

Project Number: Project Location:

roject 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

5
or
Order
NO.

www.xenco.com Page 2 of 2
Work Order Comments
Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II  Level III PST/UST TRRP Level IV
Deliverables: EDD ☐ ADaPT ☐ Other:

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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Reli	Date/Time	Date		ure)	Received by: (Signature)	Received	ature)	Relinquished by: (Signature)
	ctors. It seeigns standard terms and conditions ses are due to circumstances beyond the control terms will be enforced unless previously negotisted.		Ins Xenco, its at enses incurred t rofins Xenco, bu	y to Eurofi es or expe tted to Eur	nt compar or any loss opie submi	onsibility for each san	urchase ordi me any resp arge of \$5 fo	titutes a valid p d shail not assu project and a ch	if samples cons t of samples and applied to each	t and relinquishment of liable only for the costarge of \$85.00 will be	otice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofine Xenco, its affiliates and subcontra f service. Eurofine 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 lot f Eurofine Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofine Xenco, but not analyzed. These
70 / 7471	\g_T  U Hg: 1631/245.1/7470 /7471		Be Cd Cr (	As Ba I	A Sb /	: 8RCR	CP 6010	TCLP / SPLP 6010: 8RCRA	ed	al(s) to be analya	Circle Method(s) and Metal(s) to be analyzed
UZ V U	K Se A	8RCRA 13PPM Texas 11 AISb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn	e B Cd Ca	s Ba B	J Sb A	as 11 A	PM Tex	RCRA 13P	88	200.8 / 6020:	Total 200.7 / 6010
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					-						Ç
						-					
											/
			×	×	×	G 1	4'	1215	4/20/2022	S	BH01
			×	×	×	G 1	2'	1205	4/20/2022	Ø	. BH01
			×	×	×	G 1	1,	1200	4/20/2022	w	. BH01
			×	×	1 ×	<b>G</b>	4'	1215	4/20/2022	ø	· PH05
			×	×	×	ດ	1,	1200	4/20/2022	w	- PH05
Sample Comments	Samp		втех	TPH (8	Ž S CHLO	Grab/ # of Comp Cont	Depth	Time Sampled	Date Sampled	on Matrix	Sample Identification
NaOH+Ascorbic Acid: SAPC	NaCH+Asc		(802	3015)	RIDE			mperature:	Corrected Temperature:		Total Containers:
+NaOH: Zn	Zn Acetate+NaOH: Zn		1	)	S (E			Reading)	Temperature Reading	Yes No N/A	Sample Custody Seals:
laSO <sub>3</sub>	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>				-	D		actor:	Correction Factor:	Yes No N/A	Cooler Custody Seals:
IABIS	NaHSO4: NABIS				_			Ë	Thermometer ID	Yes No	Samples Received Intact:
	H <sub>3</sub> PO <sub>4</sub> : HP				-	No nete	Yes N	Wet Loe:	Yes No	Temp Blank:	SAMPLE RECEIPT
NaOH: Na	H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub>					_	ived by 4:3	the lab, if received by 4:30pm			°O#:
HNO3: HN	HOL: HC				Ī	od by	day receive	TAT starts the day received by	Ф	Conner Shore	Sampler's Name:
MeOH: Me	Cool: Cool				_	Ą	2 day TAT	Due Date:		CC: 2094371001	Project Location:

Released to Imaging: 6/27/2022 10:49:41 AM

Environment Testing America

1089 N Canal St Carlsbad NM 88220 Phone. 575-988-3199 Fax 575-988-3199 **Eurofins Carlsbad Chain of Custody Record** 🐝 eurofins

				-	•					Carrier Tracking NO(s).	acville in	(3).		000 246 4	
Client Information (Sub Contract Lab)	9			Kram	Kramer Jessica	ä								1 01 /-080	
Cheft Contact Shipping/Receiving	Phone:			E-Mail Jessi	E-Mail Jessica.Kramer@et.eurofinsus com	r@et.e	urofin	sus con	_	State of Origin. New Mexico	rigin.			Page: Page 1 of 2	
Company  Eurofins Environment Testing South Centr					Accreditations Required (See note): NELAP - Texas	ns Requ Texas	red (Se	e note):						Job #: 890-2221-1	
Address 1211 W Florida Ave	Due Date Requested 4/25/2022	Ō.						Analysis		Requested	_		l	Preservation Codes	Codes
City: Midland	TAT Requested (days):	ys):					_				╡	$\dashv$		A HCL B NaOH	M Hexane
State, Zip TX 79701					blametalmet								- 400 N(40		O AsNaO2 P Na2O4S Q Na2SO3
Phone: 432-704-5440(Tel)	PO#				et in Self and Self Self and Self and S		le						Sirvery ye i	F MeOH G Amchior	σ c c
Email·	WO#				lo)			EX					e	ndhaliseann	
Project Name LOS MEDANOS	Project #: 89000093				s or t			)D) B1				***************************************	alner	ᆫᆽ	W pH 4-5 Z other (specify)
Site:	SSOW#:				SD (Ye								y cont	Other:	
			Sample		MS/M		FM_28	35FP_C EX_GC					mber (		
		Sample		W=water S=solid, O=waste/oil,	orform	15MOE							esi Na		
		X	Preservation Code:	2014.3	X		400	<del>- (100)</del>	4				<b>7</b> +	Ì	Special instructions/Note:
PH01 (890-2221-1)	4/20/22	09 30 Mountain		Solid	×	×	×	×				100	4		
PH01 (890-2221-2)	4/20/22	09 35 Mountain		Solid	×	×	×	×	_				4/	Transit I	
PH01 (890-2221-3)	4/20/22	09 45 Mountain		Solid	×	×	×	×							
PH02 (890-2221-4)	4/20/22	10 00 Mountain		Solid	×	×	×	×					<b>A</b>		
PH02 (890-2221-5)	4/20/22	10 05 Mountain		Solid	×	×	×	× ×				-			
PH02 (890-2221-6)	4/20/22	10 15 Mountain		Solid	×	×	×	×		-			4	6	
PH03 (890-2221-7)	4/20/22	10 20 Mountain		Solid	×	×	×	× ×					.6.6%or d		
PH03 (890-2221-8)	4/20/22	10 35 Mountain		Solid	×	×	×	×					<b>A</b>		
PH04 (890-2221-9)	4/20/22	10 40 Mountain		Solid	×	×	×	×					, ( <b>20</b> 42)		
Note. Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out 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/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 complicance to Eurofins Environment Testing South Central LLC.	ent Testing South Centra above for analysis/tests/ >entral LLC attention im	ILLC places t matrix being au mediately If a	the ownership o nalyzed the san ill requested acc	f method, analy nples must be : reditations are	yte & accrec shipped bac current to d	itation con k to the late retu	omplian Eurofins	ce upon c Environr gned Cha	ut subcont nent Testin iin of Custo	ract labora g South Ce ody attestin	tories Thentral LLug to said	iis sampl Claborat Complica	e shipme ory or oth	nt is forwarded under er instructions will b	er chain-of-custody If the e provided. Any changes to Testing South Central LLC
					Samp	Sample Disposal ( A	osal To C	↑ tee	may be assessed if samples  Disposal By Lab	assessed if san Disposal By Lab	if san By Lab	ples a	e retai	are retained longer than  Archive For	n 1 month) Months
Deliverable Requested 1 II III IV Other (specify)	Primary Deliverable Rank 2	ble Rank 2	10		Specia	Instru	ctions	/QC Re	Special Instructions/QC Requirements	nts	İ				
Empty Kit ReInquished by		Date			Time.	١		>		Mei	Method of Shipment:	ipment:	1		
Reinquished by (1/e Gyp 4.21.20)	Date/Time <sup>.</sup>			Company	<b>-</b> ₽		区	K	Ì			Date/Time	2	122	Company
Relinquished by:	Date/Time		0	Company	<b>78</b>	Received by	,					Date/Time			Company
Relinquished by	Date/Time.		0	Company	R <sub>e</sub>	Received by						Date/Time			Company
Custody Seal No					င္ပ	Cooler Temperature(s)	peratur	e(s) °C ar	°C and Other Remarks	emarks	ļ				

**Eurofins Carlsbad** 

1089 N Canal St.

Chain of Custod

y Record	
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Environment Testing America	

BH01 (890-2221-14) BH01 (890-2221-13) PH05 (890-2221-11) PH04 (890-2221-10) State Zip TX 79701 BH01 (890-2221-15) PH05 (890-2221-12) Project Name LOS MEDANOS 432-704-5440(Tel) Possible Hazard Identification vote Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out 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 receive the samples are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central. LLC. Sample Identification - Client ID (Lab ID) Midland Deliverable Requested I II III IV Other (specify) Carlsbad NM 88220 Phone: 575-988-3199 Fax: 575-988-3199 elinquished by elinquished by: 211 W Florida Ave npty Kit Relinquished by rofins Environment Testing South Centr ipping/Receiving lient Information (Sub Contract Lab) inquished by: B Custody Seal No 1.00 Date/Time Primary Deliverable Rank 2 89000093 #OW TAT Requested (days): Due Date Requested Phone Date/Time Sample Date roject #: 4/20/22 4/20/22 4/20/22 4/20/22 4/20/22 4/20/22 Mountain 12 05 Mountain 12 15 Date Mountain Mountain 12 15 Mountain 12 00 Mountain 12 00 Sample 10 55 (C=comp, G=grab) Sample Preservation Code: Type Company Company Company Matrix Solid Solid Solid Solid Solid Solid E-Mail. Jessica Kramer@et.eurofinsus com Kramer Jessica Time Field Filtered Sample (Yes or No) 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 Cooler Temperature(s) °C and Other Remarks Received by: × × × × × × 8015MOD\_NM/8015NM\_S\_Prep (MOD) Full TPH × × × × 8016MOD\_Cald ×  $\times$ 300\_ORGFM\_28D/DI\_LEACH Chloride ×  $\times$ × × × × 8021B/5035FP\_Calc (MOD) BTEX ×  $\times$ × × Analysis Requested × Total\_BTEX\_GCV State of Origin: New Mexico Carrier Tracking No(s) Method of Shipment Date/Time \* Total Number of containers COC No. 890-716 2 IO III O O ⊠ ≯ Preservation Codes Page 2 of 2 NaOH H -2221-1 Special Instructions/Note: Ver: 06/08/2021 Company Company M Hexane
N None
O AsNa02
D Na204S
D Na203
D Na2503
R Na25203
S H2S04
T TSP Dodecahydrate
U Acetone Months other (specify)

# **Login Sample Receipt Checklist**

Client: Ensolum

Job Number: 890-2221-1

SDG Number: 03E1558007

Login Number: 2221 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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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5/2/2022 (Rev. 1)

# **Login Sample Receipt Checklist**

Client: Ensolum

Job Number: 890-2221-1

SDG Number: 03E1558007

List Source: Eurofins Midland
List Number: 2
List Creation: 04/21/22 01:11 PM

Creator: Teel, Brianna

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

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APPENDIX E

**NMOCD Notifications** 

### **Green, Garrett J**

From: Baker, Adrian

**Sent:** Friday, April 15, 2022 8:27 AM

To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD; Nobui, Jennifer, EMNRD; Hensley,

Chad, EMNRD; Hamlet, Robert, EMNRD

**Cc:** DelawareSpills /SM; Green, Garrett J

**Subject:** XTO Site Activities for the week of April 18th

Follow Up Flag: Follow up Flag Status: Flagged

All,

XTO plans to complete final sampling activities at the following sites the week of April 18, 2022.

### Tuesday

JRU Legg / nAPP2204943884

### Wednesday

- PLU RR 33-25-30 / nAPP2204125212
- Los Medanos / nAPP2204835360

### Thursday

Los Medanos / nAPP2204835360

### Friday

Pierce Canyon 32 / nAPP2205254615

Thank you,

### **Adrian Baker**

Environmental Coordinator Permian Business Unit

XTO Energy Inc.

6401 N. Holiday Hill Dr. Midland, Tx 79707 Mobile:(432)-236-3808

adrian.baker@exxonmobil.com

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

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

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

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 103612

### **CONDITIONS**

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	103612
	Action Type:
	[C-141] Release Corrective Action (C-141)

### CONDITIONS

L	Created By	Condition	Condition Date
	rhamlet	The Remediation Plan is Conditionally Approved. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH. A variance is approved for 400 ft2 floor confirmation samples. Sidewall confirmation samples should be collected every 200 ft2. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. The work will need to occur in 90 days after the work plan has been approved.	6/27/2022