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Incident ID	nAPP2215951900
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Application ID	

## Closure

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

Closure Report Attachment Checklist: Each of the following	items must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29.	.11 NMAC
Photographs of the remediated site prior to backfill or photo must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OD	OC District office must be notified 2 days prior to final sampling)
□ Description of remediation activities	
and regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regularestore, reclaim, and re-vegetate the impacted surface area to the caccordance with 19.15.29.13 NMAC including notification to the operation of the caccordance area.	lations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.
emangarren.green@exxonmoon.com	Telephone575-200-0725
OCD Only	
Received by:Jocelyn Harimon	Date:08/31/2022
	y of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible l/or regulations.
Closure Approved by: Robert Hamlet	Date: 12/2/2022
Printed Name: Robert Hamlet	Title: Environmental Specialist - Advanced

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	NAPP2215951900
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Facility ID	
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## **Release Notification**

### **Responsible Party**

Responsible	Party VTC	) Energy		OGRID 4	5290	
Responsible Party XTO Energy  Contact Name Garrett Green					Contact Telephone 575-200-0729	
Contact email garrett.green@exxonmobil.com					(assigned by OCD)	
		3104 E. Greene St			(	
Contact man	ang address	3104 E. Greene Sti	reet, Carisbad, Nev	w Mexico, 88220		
			Location	of Release So	ource	
Latitude 32.	15372			Longitude _	-103.99930	
diffide			(NAD 83 in dec	imal degrees to 5 decin	nal places)	
Site Name	Corral Cany	on Expansion Batt	erv	Site Type	Tank Battery	
Date Release			Ciy	API# (if app		
		00/02/2022				
Unit Letter	Section	Township	Range	Coun	aty	
P	05	25S	29E	Edd	y	
Crude Oi	Materia		I that apply and attach	Volume of I	justification for the volumes provided below)	
		Volume Release	0.70		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Produced	Water	Volume Release		1 1:1 (777.9)	Volume Recovered (bbls)	
			ion of total dissolv water >10,000 mg/	, ,	Yes No	
Condensa	nte	Volume Release			Volume Recovered (bbls)	
Natural Gas Volume Released (Mcf)			Volume Recovered (Mcf)			
Other (describe) Volume/Weight Released (provide un		units)	Volume/Weight Recovered (provide units)			
Cause of Rel	VKI	•	•	out flare and ignite remediation purpos	e. Flames self-extinguished upon hitting ground. A ses.	

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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	A release that results in a fire or is the resu	lt of a fire.	
19.15.29.7(A) NMAC?			
🗶 Yes 🗌 No			
<b>W</b> 10310			
If YES, was immediate n	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?	
Yes, by Garrett Green to o	ocd.enviro@state.nm.us; Bratcher, Mike, EM	ANRD; Hamlet, Robert on Thursday, June 2, 2022 6:47 PM via	
email.			
	Initial Re	esponse	
The responsible	party must undertake the following actions immediatel	unless they could create a safety hazard that would result in injury	
➤ The source of the rele	ease has been stopped.		
The impacted area ha	as been secured to protect human health and	the environment.	
	<del>-</del>	ikes, absorbent pads, or other containment devices.	
	ecoverable materials have been removed and		
If all the actions describe	d above have <u>not</u> been undertaken, explain v	vhy:	
NA			
		emediation immediately after discovery of a release. If remediation	
0 1		efforts have been successfully completed or if the release occurred	
within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.			
		pest of my knowledge and understand that pursuant to OCD rules and	
		ications 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			
		responsibility for compliance with any other federal, state, or local laws	
and/or regulations.			
Printed Name: Garrett G	reen	Title: SSHE Coordinator	
Fillited Name.	1		
Signature:	6 Sum	Date:	
email: garret.green@exx	onmobil.com	Telephone: 575-200-0729	
OCD Only			
n locolyn	Harimon	Date: 06/08/2022	
Received by: Jocelyn	n Harimon	Date:06/08/2022	

Location:	Corral Canyon Expar	nsion
Spill Date:	6/2/2022	
	Area 1	
Approximate A	rea =	2261.00 sq. ft.
Average Satura	tion (or depth) of spill =	0.75 inches
Average Porosi	ty Factor =	0.03
	VOLUME OF LEAK	
Total Crude Oil	=	0.76 bbls
Total Produced Water = 0.00 b		0.00 bbls
	TOTAL VOLUME OF L	EAK
<b>Total Crude Oil</b>	=	0.76 bbls
Total Produced Water = 0.00		0.00 bbls
	TOTAL VOLUME RECOV	/ERED
Total Crude Oil	=	0.00 bbls
Total Produced	Water =	0.00 bbls

e of New Mexico

Incident ID nAPP2215951900

Incident ID	nAPP2215951900
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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?	50-100 (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>         \infty         Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well         \infty         Field data     </li> </ul>	ls.		
<ul> <li>✓ Data table of soil contaminant concentration data</li> <li>✓ Depth to water determination</li> </ul>			
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release			
Boring or excavation logs Photographs including date and GIS information			
☐ Topographic/Aerial maps ☐ Laboratory data including chain of custody			

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

Received by OCD: 8/31/2022 1:09:15 PM Form C-141 State of New Mexico Oil Conservation Division Page 4

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nAPP22159	51900		

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Facility ID	
Application ID	

regulations all operators are required to report and/or file certain public health or the environment. The acceptance of a C-141 regalied to adequately investigate and remediate contamination that	plete to the best of my knowledge and understand that pursuant to OCD rules and release notifications and perform corrective actions for releases which may endanger port by the OCD does not relieve the operator of liability should their operations have t pose a threat to groundwater, surface water, human health or the environment. In operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: _Garrett Green	Title: _Environmental Coordinator
Signature: Satt Sur	Date:08/31/2022
email: _garrett.green@exxonmobil.com	Telephone:575-200-0729
OCD Only	
Received by: Jocelyn Harimon	Date: 08/31/2022

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Incident ID	nAPP2215951900
District RP	
Facility ID	
Application ID	

## Closure

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

Closure Report Attachment Checklist: Each of the following	items must be included in the closure report.
	1.11 NMAC
Photographs of the remediated site prior to backfill or photomust be notified 2 days prior to liner inspection)	os of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OD	OC District office must be notified 2 days prior to final sampling)
□ Description of remediation activities	
and regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regulatore, reclaim, and re-vegetate the impacted surface area to the caccordance with 19.15.29.13 NMAC including notification to the	conditions. The responsible party acknowledges they must substantially conditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.
OCD Only	
Received by: Jocelyn Harimon	Date: 08/31/2022
	y of liability should their operations have failed to adequately investigate and e water, human health, or the environment nor does not relieve the responsible d/or regulations.
Closure Approved by:	Date:
Printed Name:	Title:



August 31, 2022

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

Re: Closure Request

Corral Canyon Expansion Battery Incident Number NAPP2215951900 Eddy County, New Mexico

To Whom it May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this Closure Request to document site assessment and soil sampling activities performed at the Corral Canyon Expansion Battery (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a small crude oil flare fire at the Site. Based on the site assessment activities and analytical results from the soil sampling event, XTO is submitting this Closure Request for Incident Number NAPP2215951900.

#### SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in in Unit P, Section 5, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.15372° N, 103.99930°W) and is associated with oil and gas exploration and production operations on Federal Land managed by Bureau of Land Management (BLM).

On June 2, 2022, high levels of fluid in the vapor recovery tower caused 0.76 barrels (bbls) of crude oil to release out of the flare, which ignited and extinguished on the ground. There were no fluids to recover. XTO reported the release via email to the New Mexico Oil Conservation Division (NMOCD) on June 2, 2022 and submitted a Release Notification Form C-141 (Form C-141) on June 8, 2022. The release was assigned Incident Number NAPP2215951900.

#### SITE CHARACTERIZATION 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 estimated to be between 50 feet below ground surface (bgs) and 100 feet bgs based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer well C-04324-POD 7, located approximately 0.21 miles south of the Site. The groundwater well has a reported depth to groundwater of 58.5 feet bgs and a total depth of 64 feet bgs. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 601 North Marienfeld Street #400 | Midland, TX 79701 | ensolum.com



The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 1,925 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 (medium 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 TPH-diesel range organics (DRO): 1,000 mg/kg

TPH: 2,500 mg/kgChloride: 10,000 mg/kg

#### SITE ASSESSMENT AND DELINEATION ACTIVITIES

On August 22, 2022, site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Eight preliminary soil samples (SS01 through SS04 and PH01 through PH04) were collected within and around the release extent from a depth of 0.5 feet bgs, to assess for the presence or absence of impacted soil. 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.

Field screening results indicated no impacts to soil; however, surficial staining from the fire was scraped and removed from the Site. Following the preliminary soil sampling and scraping, additional delineation activities were conducted to confirm the absence of impacted soil in the subsurface. Potholes were advanced via track mounted backhoe within the release extent at the locations of preliminary soil samples PH01 through PH01. The potholes were advanced to a depth of 2 feet bgs. Discrete delineation soil samples PH01A through PH04A were collected from the potholes at a depth of 2 feet bgs. Soil from the potholes was field screened for VOCs and chloride utilizing a calibrated PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix C. The delineation soil sample locations are depicted on Figure 2.

The preliminary and delineation 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.



#### LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all preliminary soil samples and all delineation soil samples indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and provide lateral and vertical delineation to below the most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

#### **CLOSURE REQUEST**

Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the June 2, 2022 crude oil flare fire. Laboratory analytical results for the soil samples collected within and around the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and provided lateral and vertical delineation to below the most stringent Table 1 Closure Criteria. XTO removed the surficial staining from the fire and based on the soil sample analytical results, no further remediation was required. XTO respectfully requests closure for Incident Number NAPP2205254615.

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

Sincerely, **Ensolum, LLC** 

Mouissey **Tacoma Morrissey** 

Senior Geologist

ashley L. ager

Program Director, M.S., P.G.

Shelby Pennington, XTO Bureau of Land Management

#### Appendices:

CC:

Figure 1 Site Receptor Map

Garrett Green, XTO

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

Appendix B Photographic Log

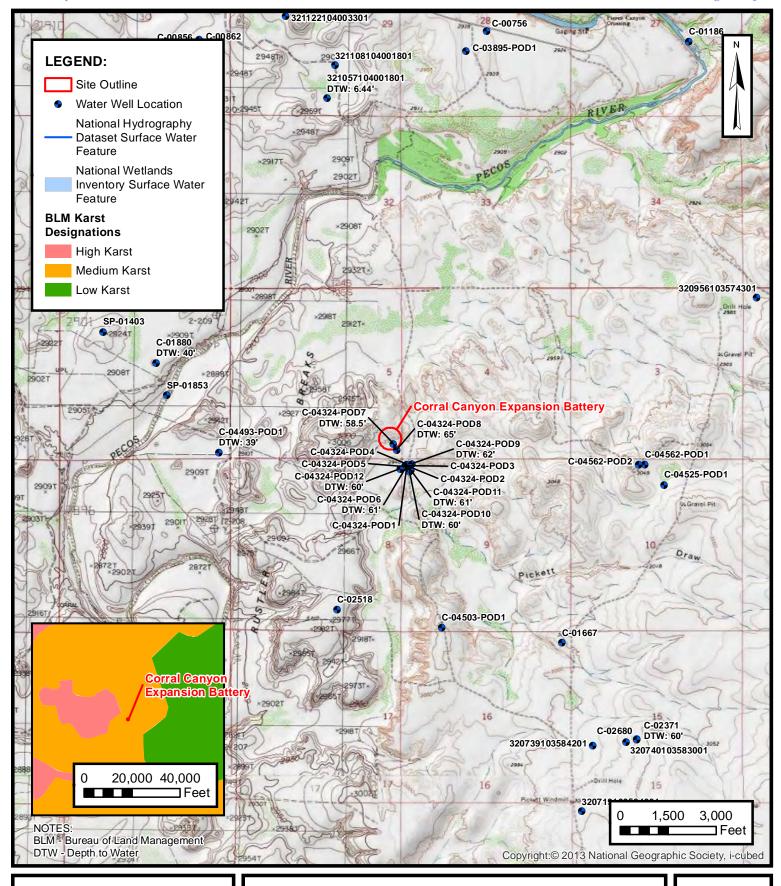
Appendix C Lithologic Soil Sampling Logs

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

NMOCD Notifications Appendix E



**FIGURES** 



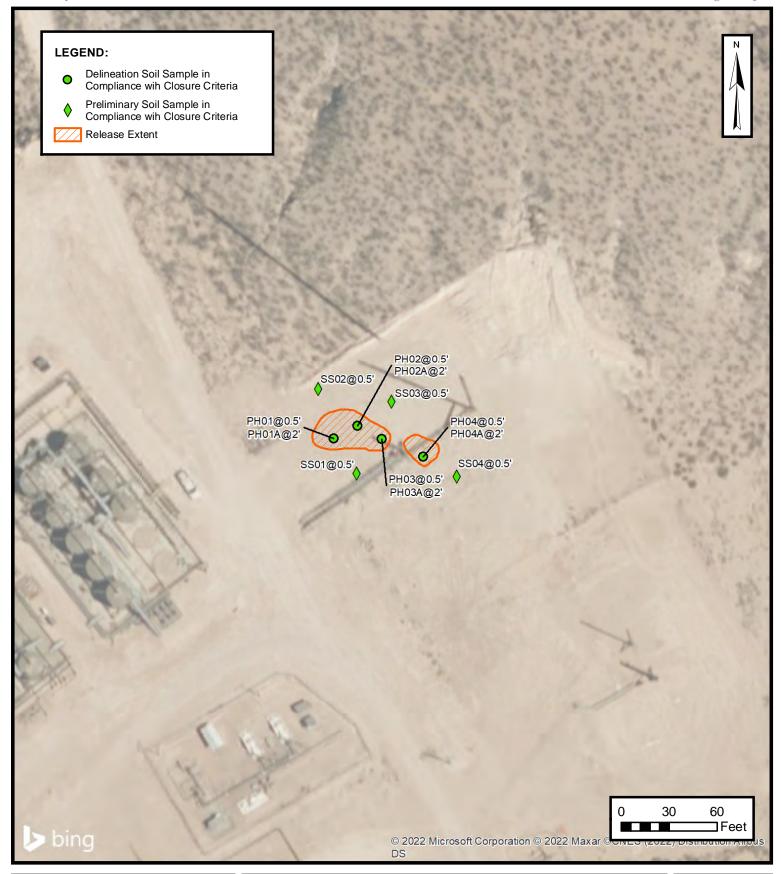


#### SITE RECEPTOR MAP

XTO ENERGY, INC
CORRAL CANYON EXPANSION BATTERY

NAPP2215951900 Unit P, Sec 5, T25S, R29E Eddy County, New Mexico FIGURE

1





#### **DELINEATION SOIL SAMPLE LOCATIONS**

XTO ENERGY, INC CORRAL CANYON EXPANSION BATTERY NAPP2215951900

NAPP2215951900 Unit P, Sec 5, T25S, R29E Eddy County, New Mexico FIGURE

2



**TABLES** 



## TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Corral Canyon Expansion Battery 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 C	losure Criteria (	NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	10,000
				Del	ineation Soil San	nples				
SS01	08/22/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	11.9
SS02	08/22/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8.54
SS03	08/22/2022	0.5	<0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	18.7
SS04	08/22/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	13.1
PH01	08/22/2022	0.5	<0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	95.9
PH01A	08/22/2022	2	< 0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	32.3
PH02	08/22/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	72.7
PH02A	08/22/2022	2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	44.8
PH03	08/22/2022	0.5	<0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	129
PH03A	08/22/2022	2	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	48.1
PH04	08/22/2022	0.5	<0.00200	<0.00399	<49.9	122	69.0	122	191	83.1
PH04A	08/22/2022	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	98.8

#### 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

Ensolum 1 of 1



**APPENDIX A** 

Referenced Well Records



## WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

#### www.ose.state.nm.us

NOI	OSE POD NO POD 10 (M	-	D.)		WELL TAG ID NO.			OSE FILE NO(	S).			
OCAT	WELL OWN XTO Energ	,	5)	•			į	PHONE (OPTIO 432-221-733	•			
AND WELL LOCATION	WELL OWN 522 W Me							CITY Carlsbad		STATE NM	88220	ZIP
ē			DE	GREES	MINUTES	SECON	DS					
¥	WELL			32	9	5.5	7	* ACCURACY	REQUIRED: ONE TEN	TH OF A	SECOND	
Z.	LOCATIO	1.0	TITUDE				N		QUIRED: WGS 84	1110171	5200.12	
GENERAL	(FROM GI	'S) LC	NGITUDE	103	59	49.0	5 W	* DATUM KEU	QUIRED: WGS 84			
Ē	DESCRIPTION	ON RELATI	NG WELL LOCATION TO	STREET ADDR	ESS AND COMMON	LANDMA	RKS – PLS	S (SECTION, TO	WNSHJIP, RANGE) WH	ERE AV	AILABLE	
-	North Wes	t Ouarter	of North West Quar	ter of Section	9. Township 2	5 South.	Range 29	9 East, Eddy	County, New Mex	ico		
					,							
	LICENSE NO	).	NAME OF LICENSED	DRILLER					NAME OF WELL DR	ILLING C	OMPANY	
	166	54			Shawn Cain				C	ascade I	Orilling	
	DRILLING S	TARTED	DRILLING ENDED	DEPTH OF CO	MPLETED WELL (F.	D	BORE HOL	E DEPTH (FT)	DEPTH WATER FIRE	ST ENCO	UNTERED (FT)	
	7/20/2		7/21/2019		65	- 1		65		60	, ,	
						1			STATIC WATER LEV	EL BLC	MADE ETTER ME	T 7 (17T)
	COMPLETE	WELL IS:	ARTESIAN	DRY HOL	E 🔽 SHALLO	W (UNCON	IFINED)		STATIC WATER LEV	55 SEL		LL(FI)
Š					,		· · · · · · · · · · · · · · · · · · ·					
Ē	DRILLING F	LUID:	✓ AIR	MUD	ADDITIV	ES - SPEC	IFY:					
CASING INFORMATION	DRILLING M	ETHOD:	ROTARY	HAMMER	CABLE T	OOL	✓ OTHE	R - SPECIFY:		Sonic	;	
ē	D.C.D.C.L.	4C +1 D		GLEDIO		105				T'		!
Z		(feet bgl)	BORE HOLE	CASING	MATERIAL AND GRADE	D/OR	CA	SING	CASING	CASI	NG WALL	SLOT
S	FROM	TO	DIAM	(include e	ach casing string,	and		IECTION	INSIDE DIAM. THICKNESS			SIZE
ASI			(inches)		ections of screen)			YPE ing diameter)	(inches)	(	inches)	(inches)
ر ت	0	65	6									
DRILLING &	0	45		2	" PVC Blank		Flush Th	read SCH 40	2.067		.154	
L	45	65		2'	" PVC Screen	<u> </u>	Flush Th	read SCH 40	2.067		ر 154ع	020
RIL				<u> </u>							1,113	
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												L
	ДЕРТИ	(feet bgl)	DODE HOLE	1 70	T ANNUU AD CE	- AT B447	EDIAT 4	ND	AMOUNT		метно	
-			BORE HOLE DIAM. (inches)	1	ST ANNULAR SE VEL PACK SIZE				AMOUNT (cubic feet)		PLACEM	
RIA	FROM	TO		GIA.			DI INIL	TVAL				
E	0	2	6			ncrete			.5		Poure	
Ψ¥	2	43	6			nite Chips			7.5		Poure	ed .
ANNULAR MATERIAL	43	65	6		12-2	0 Sand			4		Poure	ed
UL,												
Z												
3. A								<u></u>				
**4										-+		
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FOR	OSE INTER	NAL USE						WR-20	WELL RECORD &	& LOG (	Version 04/30	0/19)

POD NO.

TRN NO.

WELL TAG ID NO.

PAGE 1 OF 2

FILE NO.

LOCATION

			,	<b>,</b>							
	DEPTH (f	TO	THICKNESS (feet)	COLOR AN INCLUDE WATI (attach su)	٦ I	WAT BEAR (YES	ING?	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)			
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	15	43	28		(CLCHE) - tan CALI	СНЕ			Y	✓ N	
	43	60	17		(SP) - brown-red SA	ND			Y	✓ N	
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OF									Y	N	
90		•							Y	N	
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ROG									Y	N	
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S. TEST	PRINT NAM	E(S) OF D	RILL RIG SUPER	VISOR(S) THAT PRO	OVIDED ONSITE SUPER	VISION O	F WELL CON	STRUCTIO	ON OT	HER TH	IAN LÍCENSEE:
6. SIGNATURE	RECORD OF	THE ABOORD WILL	ALSO BE FILED	WELL. I ALSO CERT WITH THE PERMIT I	OF MY KNOWLEDGE A CIFY THAT THE WELL THOUGHT WITHIN 30 DA  LANGE	'AG, IF RE YS AFTER	EOUIRED, HA	S BEEN II ETION O	NSTAI F WEI	LLED AN LL DRILI	ID-THAT THIS LING.
		SIGNAT	UKE OF DRILLE	R / PRINT SIGNEE	NAME					DATE	
FOF	R OSE INTERN	NAL USE					WR-20 WE	LL RECOF	RD & I	.OG (Ve	rsion 04/30/2019)
FIL	E NO.				POD NO.		TRN NO.				
LO	CATION					WELL	TAG ID NO.				PAGE 2 OF 2



USGS Home Contact USGS Search USGS

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

USGS Water Resources	Data Category:	Geographic Area:	
5565 Water Resources	Groundwater ~	United States 🕶	GO

#### Click to hideNews Bulletins

- Explore the NEW <u>USGS National Water Dashboard</u> interactive map to access realtime water data from over 13,500 stations nationwide.
- Attention current WaterAlert users: NextGen WaterAlert is replacing Legacy WaterAlert. You must take action before 9/30/2022 to retain your alerts. Read more.
- Full News

#### Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

### Search Results -- 1 sites found

site\_no list =

• 321057104001801

#### Minimum number of levels = 1

Save file of selected sites to local disk for future upload

#### USGS 321057104001801 24S.29E.29.433

Available data for this site	Groundwater:	Field measurements	~	GO
Eddy County, New Mexico				
Hydrologic Unit Code 1306	50011			
		014 011 11 1 1 1 1 2 2 2		

Latitude 32°10'57", Longitude 104°00'18" NAD27 Land-surface elevation 2,962 feet above NGVD29

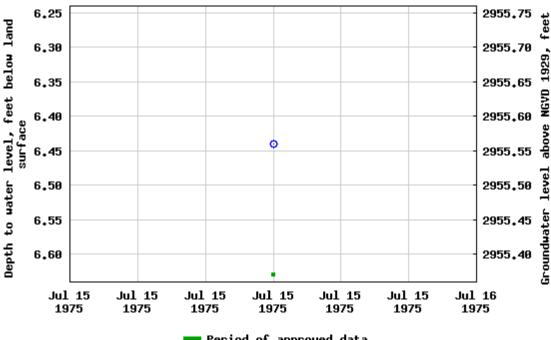
This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

## **Output formats**

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

#### USGS 321057104001801 245.29E.29.433



Period of approved data

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

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FOIA

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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: 2022-08-29 12:34:11 EDT

0.72 0.55 nadww01





**APPENDIX B** 

Photographic Log



#### **Photographic Log**

XTO Energy, Inc.
Corral Canyon Expansion
nAPP2215951900





Photograph 1 Date: 7/19/20
Description: View of staining from the flare fire, facing east.

7/19/2022 Photograph 2 Date: 7/19/2022 facing Description: View of staining on south side of the flare, facing north.



Photograph 3 Date:

Description: Photo showing scraped area facing southeast



8/22/2022 Photograph 4

Description: View of staining scrape facing west.

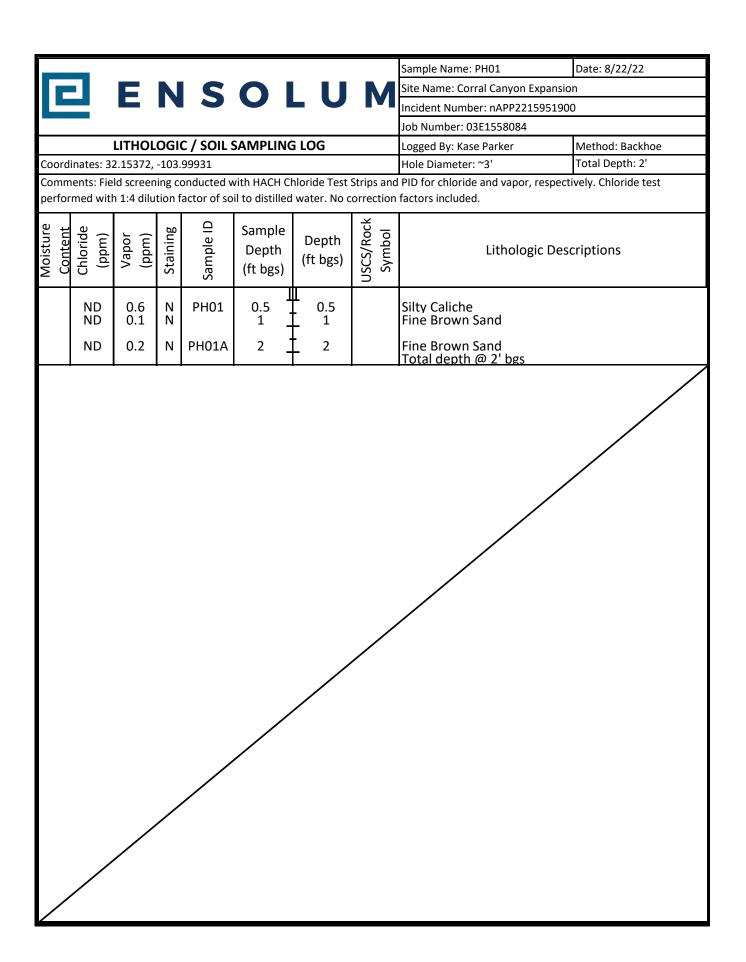
8/22/2022

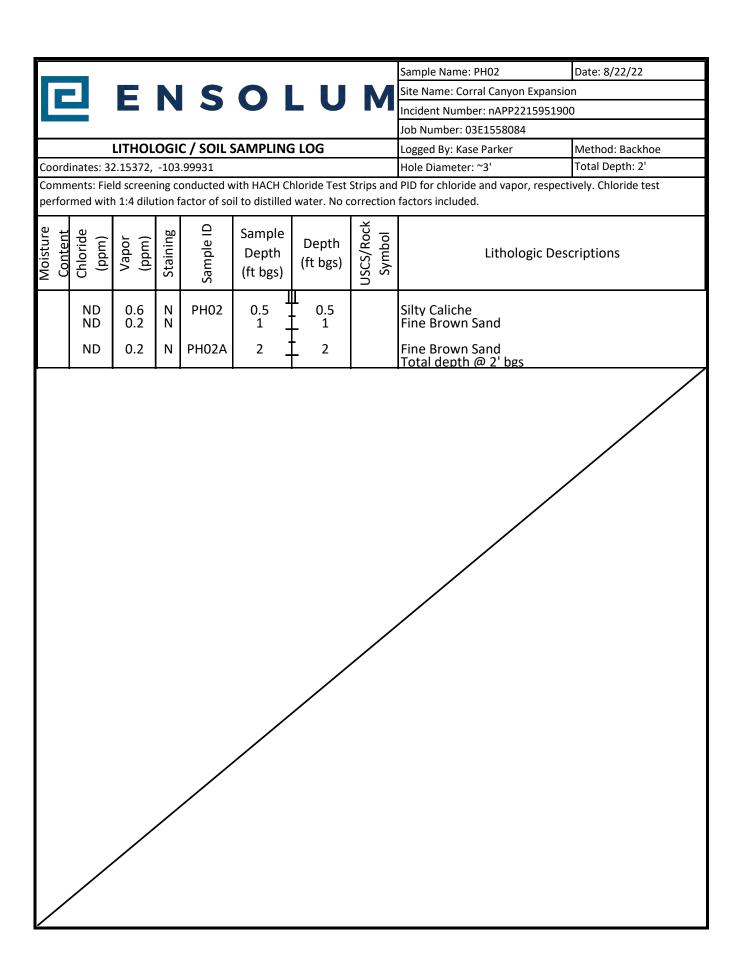
Page 1 of 1

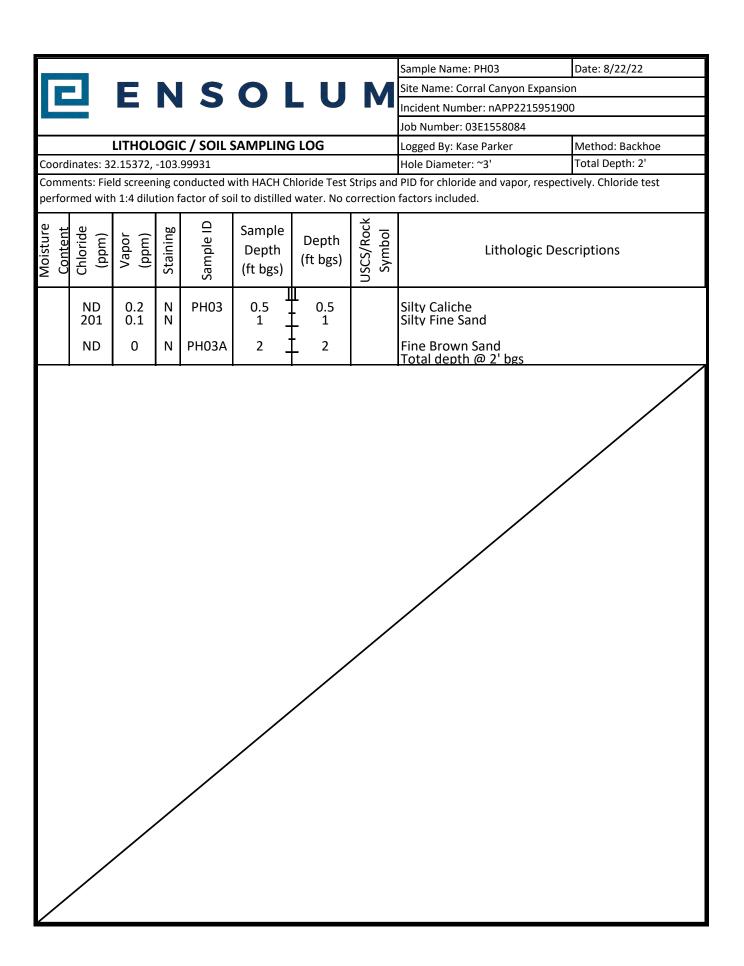


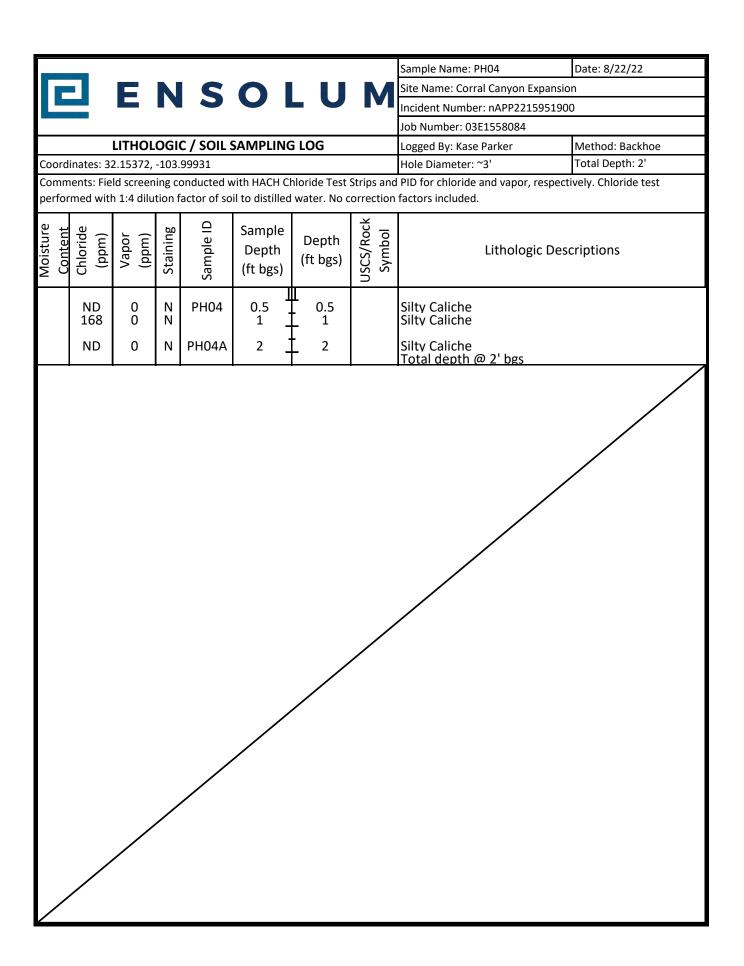
APPENDIX C

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: 890-2804-1

Laboratory Sample Delivery Group: 03E1558084 Client Project/Site: Corral Canyon Expansion

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

JURAMER

Authorized for release by: 8/25/2022 2:43:57 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS .....

Received by OCD: 8/31/2022 1:09:15 PM

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 12/2/2022 8:35:09 AM

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.

This report has been electronically signed and authorized by the signatory. Electronic

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Client: Ensolum Laboratory Job ID: 890-2804-1 Project/Site: Corral Canyon Expansion

SDG: 03E1558084

## **Table of Contents**

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QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receint Checklists	18

#### **Definitions/Glossary**

Job ID: 890-2804-1 Client: Ensolum Project/Site: Corral Canyon Expansion

SDG: 03E1558084

#### **Qualifiers**

**GC VOA** 

Qualifier **Qualifier Description** 

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** 

U Indicates the analyte was analyzed for but not detected.

**Glossary** 

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

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

%R Percent Recovery CFL Contains Free Liquid Colony Forming Unit CFU **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) Limit of Quantitation (DoD/DOE) LOQ

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

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

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) TFF Toxicity Equivalent Quotient (Dioxin) **TEQ** 

**TNTC** Too Numerous To Count

**Eurofins Carlsbad** 

#### **Case Narrative**

Client: Ensolum Job ID: 890-2804-1 SDG: 03E1558084 Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1

**Laboratory: Eurofins Carlsbad** 

Narrative

**Job Narrative** 890-2804-1

#### Receipt

The sample was received on 8/23/2022 8:28 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

#### **GC VOA**

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

#### GC Semi VOA

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

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

Matrix: Solid

Lab Sample ID: 890-2804-1

## **Client Sample Results**

Client: EnsolumJob ID: 890-2804-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

Client Sample ID: SS02

Date Collected: 08/22/22 13:45 Date Received: 08/23/22 08:28

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 15:15	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 15:15	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 15:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/24/22 10:24	08/24/22 15:15	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 15:15	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/24/22 10:24	08/24/22 15:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			08/24/22 10:24	08/24/22 15:15	1
1,4-Difluorobenzene (Surr)	102		70 - 130			08/24/22 10:24	08/24/22 15:15	1
Method: Total BTEX - Total BTEX	( Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
•	<0.00398		0.00398	mg/Kg			08/24/22 16:04	
Method: 8015 NM - Diesel Range	•							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/25/22 09:31	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/24/22 08:40	08/24/22 17:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/22 08:40	08/24/22 17:30	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 08:40	08/24/22 17:30	1
Surra mata	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Surrogate								
Surrogate 1-Chlorooctane	91		70 - 130			08/24/22 08:40	08/24/22 17:30	1
			70 <sub>-</sub> 130 70 <sub>-</sub> 130			08/24/22 08:40 08/24/22 08:40	08/24/22 17:30 08/24/22 17:30	•
1-Chlorooctane	91 96	Soluble						1
1-Chlorooctane o-Terphenyl	91 96 omatography -	Soluble Qualifier		Unit	<u>D</u>			-

**Eurofins Carlsbad** 

## **Surrogate Summary**

Client: Ensolum Job ID: 890-2804-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2802-A-1-A MS	Matrix Spike	110	103	
890-2802-A-1-B MSD	Matrix Spike Duplicate	109	98	
890-2804-1	SS02	105	102	
LCS 880-32835/1-A	Lab Control Sample	100	101	
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107	
MB 880-32835/5-A	Method Blank	80	88	
Surrogate Legend				
BFB = 4-Bromofluorobe	nzene (Surr)			
DFBZ = 1,4-Difluoroben	zene (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)	
890-2794-A-1-C MS	Matrix Spike	101	94	
890-2794-A-1-D MSD	Matrix Spike Duplicate	87	83	
890-2804-1	SS02	91	96	
LCS 880-32817/2-A	Lab Control Sample	81	97	
LCSD 880-32817/3-A	Lab Control Sample Dup	78	94	
MB 880-32817/1-A	Method Blank	95	102	
Surrogate Legend				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

**Eurofins Carlsbad** 

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Client: Ensolum Job ID: 890-2804-1 SDG: 03E1558084 Project/Site: Corral Canyon Expansion

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32835/5-A

**Matrix: Solid** Analysis Batch: 32815 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32835

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	•
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	-	08/24/22 10:24	08/24/22 13:56	1
1,4-Difluorobenzene (Surr)	88		70 - 130		08/24/22 10:24	08/24/22 13:56	1

Lab Sample ID: LCS 880-32835/1-A **Client Sample ID: Lab Control Sample** 

**Matrix: Solid** 

Analysis Batch: 32815

Prep Type: Total/NA

Prep Batch: 32835

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09463 mg/Kg 95 70 - 130 Toluene 0.100 0.09936 mg/Kg 99 70 - 130 0.100 0.09277 Ethylbenzene mg/Kg 93 70 - 130 0.200 0.1944 97 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.1080 70 - 130 o-Xylene mg/Kg 108

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-32835/2-A

**Matrix: Solid** 

Analysis Batch: 32815

Prep Type: Total/NA

Prep Batch: 32835

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1047		mg/Kg		105	70 - 130	10	35	
Toluene	0.100	0.1049		mg/Kg		105	70 - 130	5	35	
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130	11	35	
m-Xylene & p-Xylene	0.200	0.2127		mg/Kg		106	70 - 130	9	35	
o-Xylene	0.100	0.1178		mg/Kg		118	70 - 130	9	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1.4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-2802-A-1-A MS

**Matrix: Solid** 

Analysis Batch: 32815

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

Prep Batch: 32835

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.09061		mg/Kg		90	70 - 130	
Toluene	<0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130	

**Eurofins Carlsbad** 

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#### QC Sample Results

Job ID: 890-2804-1 Client: Ensolum Project/Site: Corral Canyon Expansion SDG: 03E1558084

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

Lab Sample ID: 890-2802-A-1-B MSD

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 32815

Lab Sample ID: 890-2802-A-1-A MS Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 32835

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00201 U 0.100 0.09369 93 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00402 U 0.201 0.1929 mg/Kg 96 70 - 130 <0.00201 U 0.100 0.1046 70 - 130 o-Xylene mg/Kg 104

MS MS

Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 110 1,4-Difluorobenzene (Surr) 70 - 130 103

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 32835

RPD

Analysis Batch: 32815 Sample Sample Spike MSD MSD Result Qualifier Added %Rec RPD Analyte Result Qualifier Limits Unit Benzene <0.00201 U 0.0990 0.08856 mg/Kg 89 70 - 130 2 Toluene <0.00201 0.0990 0.09614 mg/Kg 97 70 - 130 4 Ethylbenzene <0.00201 0.0990 0.09122 92 70 - 130 35 U mg/Kg 3 35 m-Xylene & p-Xylene <0.00402 U 0.198 0.1855 mg/Kg 94 70 - 130 0.0990 0.1006 70 - 130 o-Xylene <0.00201 U mg/Kg 102

Limit 35 35

MSD MSD

Qualifier Limits Surrogate %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 109 1,4-Difluorobenzene (Surr) 98 70 - 130

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

Lab Sample ID: MB 880-32817/1-A

**Matrix: Solid** 

Analysis Batch: 32810

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

Prep Batch: 32817

	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		08/24/22 08:40	08/24/22 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/22 08:40	08/24/22 10:43	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 08:40	08/24/22 10:43	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	08/24/22 08:40	08/24/22 10:43	1
o-Terphenyl	102		70 - 130	08/24/22 08:40	08/24/22 10:43	1

Lab Sample ID: LCS 880-32817/2-A

**Matrix: Solid** 

Analysis Batch: 32810

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 32817

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	1000	979.2		mg/Kg		98	70 - 130
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	786.3		mg/Kg		79	70 - 130
C10-C28)							

**Eurofins Carlsbad** 

Job ID: 890-2804-1 Client: Ensolum Project/Site: Corral Canyon Expansion SDG: 03E1558084

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

LCS LCS

Lab Sample ID: LCS 880-32817/2-A Client Sample ID: Lab Control Sample

**Matrix: Solid** 

Analysis Batch: 32810

Prep Type: Total/NA

Prep Batch: 32817

Surrogate %Recovery Qualifier 1-Chlorooctane 81 70 - 130 o-Terphenyl 97 70 - 130

Lab Sample ID: LCSD 880-32817/3-A Client Sample ID: Lab Control Sample Dup

Limits

**Matrix: Solid** 

Analysis Batch: 32810

Prep Type: Total/NA Prep Batch: 32817

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 930.0 93 70 - 1305 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 765.3 77 mg/Kg 70 - 1303 20

C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-A-1-C MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

**Analysis Batch: 32810** 

Prep Type: Total/NA

Prep Batch: 32817

Sample Sample MS MS Spike Analyte Added Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <49.9 U 999 1138 mg/Kg 114 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 999 853.2 mg/Kg 85 70 - 130 C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 101 o-Terphenyl 94 70 - 130

Lab Sample ID: 890-2794-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

Analysis Batch: 32810

Prep Type: Total/NA Prep Batch: 32817

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Gasoline Range Organics U 998 956.7 96 <49.9 mg/Kg 70 - 130 17 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 998 760.2 mg/Kg 76 70 - 130 12 20

C10-C28)

MSD MSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	87	70 - 130
o-Terphenyl	83	70 - 130

Job ID: 890-2804-1 Project/Site: Corral Canyon Expansion

SDG: 03E1558084

**Prep Type: Soluble** 

Client Sample ID: Method Blank

Client Sample ID: Matrix Spike Duplicate

**Prep Type: Soluble** 

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32845/1-A

**Matrix: Solid** 

Analysis Batch: 32874

Client: Ensolum

MB MB

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 08/24/22 21:08

Lab Sample ID: LCS 880-32845/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 32874** 

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 234.1 mg/Kg 94 90 - 110

Lab Sample ID: LCSD 880-32845/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 32874

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 234.4 mg/Kg 90 - 110

Lab Sample ID: 890-2801-A-4-D MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 32874

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added %Rec Result Qualifier Unit Limits Chloride 44.8 252 297.5 100 90 - 110 mg/Kg

Lab Sample ID: 890-2801-A-4-E MSD

**Matrix: Solid** 

Analysis Batch: 32874

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 252 Chloride 44.8 297.4 mg/Kg 100 90 - 110 0 20

### **QC Association Summary**

Client: Ensolum Job ID: 890-2804-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

**GC VOA** 

Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	32835
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	Total BTEX	

**GC Semi VOA** 

Analysis Batch: 32810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	8015B NM	32817
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015B NM	32817
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32817
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32817
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32817
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32817

Prep Batch: 32817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	8015NM Prep	
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

**Eurofins Carlsbad** 

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## **QC Association Summary**

Client: EnsolumJob ID: 890-2804-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

### **HPLC/IC** (Continued)

### Leach Batch: 32845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

### **Analysis Batch: 32874**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	300.0	32845
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32845

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### **Lab Chronicle**

Client: Ensolum Job ID: 890-2804-1 Project/Site: Corral Canyon Expansion SDG: 03E1558084

**Client Sample ID: SS02** 

Lab Sample ID: 890-2804-1

Matrix: Solid

Date Collected: 08/22/22 13:45 Date Received: 08/23/22 08:28

	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	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 15:15	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32864	08/24/22 16:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32903	08/25/22 09:31	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32817	08/24/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1			32810	08/24/22 17:30	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/25/22 00:48	SMC	EET MID

### **Laboratory References:**

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

### **Accreditation/Certification Summary**

Client: EnsolumJob ID: 890-2804-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

### **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		ELAP	06-30-23		
The following analytes	are included in this report hi	it the laboratory is not certific	ed by the governing authority. This list ma	v include analytes for y	
the agency does not of	' '	it the laboratory is not certify	ed by the governing additionty. This list his	ay illolude allalytes for v	
0 ,	' '	Matrix	Analyte	ay include analytes for v	
the agency does not of	fer certification.	•	, , ,	ay include analytes for v	

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### **Method Summary**

Client: Ensolum Job ID: 890-2804-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

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

### **Protocol References:**

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

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

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### **Sample Summary**

Client: Ensolum

Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1

SDG: 03E1558084

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2804-1	SS02	Solid	08/22/22 13:45	08/23/22 08:28	0.5

eurofins

# Chain of Custody

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

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334         Work Order No:           EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296         www.xenco.com         Page         of					ı
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  Ssey  Bill to: (if different)  Company Name:  XTO Energy  Parks Hwy  Address:  3104 E. Green St.  Email: Garret Green@ExxonMobil.com		ANALYSIS RE	Turn Around	Corral Canyon Expansion	
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  Ssey  Bill to: (if different)  Company Name: XTO Energy  Parks Hwy  Address: 3104 E. Green St.  City, State ZIP: Carlsbad, NM 88220  Email: Garret.Green@ExxonMobil.com					ı
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  Morrissey  Bill to: (if different)  Company Name: XTO Energy  ional Parks Hwy  Address: 3104 E. Green St.  Carlsbad, NM 88220  City, State ZIP: Carlsbad, NM 88220		nMobil.com	Email: Garret.Green@Exx	303-887-2946	
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  Morrissey  Bill to: (if different)  Company Name:  XTO Energy  Address:  3104 E. Green St.	Reporting: Level II   Level III   PST/UST   TRRP   Level IV	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220	
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  Morrissey  Bill to: (if different)  Company Name: XTO Energy  Program: UST/	State of Project:	3104 E. Green St.	Address:	3122 National Parks Hwy	
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  www.xenco.com  Bill to: (if different)  Garret Green  Work Order Co	Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐	XTO Energy	Company Name:	Ensolum	
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 <b>Work Order No:</b> EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199  www.xenco.com	Work Order Comments	Garret Green	Bill to: (if different)	Tacoma Morrissey	
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	1				
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296		575) 392-7550, Carlsbad, NM (575) 988-3199	Hobbs, NM (		
		(915) 585-3443, Lubbock, TX (806) 794-1296	EL Paso, TX	Xemos	
	Work Order No:	32) 704-5440, San Antonio, TX (210) 509-3334	Midland, TX (4	Environment Tostus	1

32.15372, -103.99931 03E1558084

Due Date: ☐ Routine

✓ Rush 24hr TAT

None: NO

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

Project Number:

Project Name:

Phone:

City, State ZIP:

\ddress: Company Name: Project Manager:

5	1 Umil 1	Relinguished by: (Signature)	Notice: Signature of this document an of service. Eurofins Xenco will be liab of Eurofins Xenco. A minimum charge	Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010 200							ſ	SS02	Sample Identification	Total Containers:	Sample Custody Seals: Yes	Cooler Custody Seals: Yes	Samples Received Intact: (	SAMPLE RECEIPT T	TO #:	
	The Charles	Received by: (Signature)	and relinquishment of samples constitutes a valid purchase or able only for the cost of samples and shall not assume any res ge of \$85.00 will be applied to each project and a charge of \$5	(s) to be analyzed TCLP / SPLP 601	200.8 / 6020: 8RCRA 13PPM Te				1				S 8/22/2022 13:45 0.5	Matrix Sampled Sampled Depth	Corrected Temperature:	es No NIA Temperature Reading:	es No No Correction Factor:	(Yes) No   Thermometer ID:   NIMOS	Temp Blank: Yes No Wet Ice: Yes		the lab if received by 4:30pm
00	8-33-32 828	Date/Time Relinquished by: (Signature) Received by: (Signature)	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$86.00 will be applied to each project and a charge of \$6 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg:	K Se A								×	Grab/ # of OF Comp Cont CHLOF TPH (8	015)	S (E	Pa	arar	onete	_	-
Person Date 08/25/2022 Rev 2020 2		gnature) Date/Time	ons ntrol otiated.	Hg: 1631 / 245.1 / 7470 / 7471	O <sub>2</sub> Na Sr TI Sn U V Zn	17			AFE:	1056571001	Cost Center:	nAPP2215951900	Incident ID:	Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	NaHSO <sub>4</sub> : NABIS	H <sub>3</sub> PO <sub>4</sub> : HP		H,SU. H,

### **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2804-1 SDG Number: 03E1558084

Login Number: 2804 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 ampered 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	
the Field Sampler's name present on COC?	True	
here 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	
ppropriate sample containers are used.	True	
sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
here 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: 890-2804-1

SDG Number: 03E1558084

Login Number: 2804 **List Source: Eurofins Midland** List Number: 2

List Creation: 08/24/22 10:58 AM

Creator: Rodriguez, Leticia

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

<6mm (1/4").



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# **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-2803-1

Laboratory Sample Delivery Group: 03E1558084 Client Project/Site: Corral Canyon Expansion

For:

eurofins

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey



Authorized for release by: 8/25/2022 2:43:57 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Review your project results through

.....LINKS

Received by OCD: 8/31/2022 1:09:15 PM

Have a Question?



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 12/2/2022 8:35:09 AM

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

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.

Client: Ensolum
Project/Site: Corral Canyon Expansion

Laboratory Job ID: 890-2803-1 SDG: 03E1558084

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### **Definitions/Glossary**

Job ID: 890-2803-1 Client: Ensolum Project/Site: Corral Canyon Expansion

SDG: 03E1558084

### **Qualifiers**

### **GC VOA**

Qualifier **Qualifier Description** 

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** 

U Indicates the analyte was analyzed for but not detected.

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid

Colony Forming Unit CFU **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

Decision Level Concentration (Radiochemistry) DLC

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

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

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

Not Calculated NC

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

NEG Negative / Absent POS Positive / Present

**PQL** Practical Quantitation Limit

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

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

**TNTC** Too Numerous To Count

### **Case Narrative**

Client: Ensolum Job ID: 890-2803-1 SDG: 03E1558084 Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2803-1

### Receipt

The sample was received on 8/23/2022 8:28 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

### **GC VOA**

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

### GC Semi VOA

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

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

**Eurofins Carlsbad** 8/25/2022

Matrix: Solid

Lab Sample ID: 890-2803-1

### **Client Sample Results**

Client: EnsolumJob ID: 890-2803-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

Client Sample ID: SS03

Date Collected: 08/22/22 13:50 Date Received: 08/23/22 08:28

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 14:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 14:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 14:48	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/24/22 10:24	08/24/22 14:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 14:48	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/24/22 10:24	08/24/22 14:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			08/24/22 10:24	08/24/22 14:48	1
1,4-Difluorobenzene (Surr)	100		70 - 130			08/24/22 10:24	08/24/22 14:48	1
- Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/24/22 16:04	1
Method: 8015 NM - Diesel Range	•				_			
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg				
							08/25/22 09:31	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)					06/25/22 09.51	1
•	• •	RO) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	• •	Qualifier	<b>RL</b> 49.9	<b>Unit</b> mg/Kg	<u>D</u>	Prepared 08/24/22 08:40		
Analyte Gasoline Range Organics	Result	Qualifier U			<u>D</u>		Analyzed	Dil Fac
Analyte  Gasoline Range Organics (GRO)-C6-C10  Diesel Range Organics (Over	Result   <49.9	Qualifier U	49.9	mg/Kg	<u>D</u>	08/24/22 08:40	<b>Analyzed</b> 08/24/22 17:09	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <49.9   <49.9	Qualifier U U U	49.9	mg/Kg	<u>D</u>	08/24/22 08:40 08/24/22 08:40	Analyzed 08/24/22 17:09 08/24/22 17:09	<b>Dil Fac</b> 1
Analyte  Gasoline Range Organics (GRO)-C6-C10  Diesel Range Organics (Over C10-C28)  Oll Range Organics (Over C28-C36)	Result   <49.9   <49.9   <49.9	Qualifier U U U	49.9 49.9 49.9	mg/Kg	<u> </u>	08/24/22 08:40 08/24/22 08:40 08/24/22 08:40	Analyzed 08/24/22 17:09 08/24/22 17:09 08/24/22 17:09	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier U U U	49.9 49.9 49.9 <i>Limits</i>	mg/Kg	<u> </u>	08/24/22 08:40 08/24/22 08:40 08/24/22 08:40  Prepared	Analyzed 08/24/22 17:09 08/24/22 17:09 08/24/22 17:09 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	Qualifier  U  U  Qualifier	49.9 49.9 49.9 <b>Limits</b> 70 - 130	mg/Kg	<u>D</u>	08/24/22 08:40 08/24/22 08:40 08/24/22 08:40  Prepared 08/24/22 08:40	Analyzed 08/24/22 17:09 08/24/22 17:09 08/24/22 17:09  Analyzed 08/24/22 17:09	Dil Fac
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	Qualifier  U  U  Qualifier	49.9 49.9 49.9 <b>Limits</b> 70 - 130	mg/Kg	<u>D</u>	08/24/22 08:40 08/24/22 08:40 08/24/22 08:40  Prepared 08/24/22 08:40	Analyzed 08/24/22 17:09 08/24/22 17:09 08/24/22 17:09  Analyzed 08/24/22 17:09	Dil Face  1  1  1  Dil Face

### **Surrogate Summary**

Client: Ensolum Job ID: 890-2803-1 Project/Site: Corral Canyon Expansion SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Re
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2802-A-1-A MS	Matrix Spike	110	103	
890-2802-A-1-B MSD	Matrix Spike Duplicate	109	98	
890-2803-1	SS03	109	100	
LCS 880-32835/1-A	Lab Control Sample	100	101	
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107	
MB 880-32835/5-A	Method Blank	80	88	
Surrogate Legend				
BFB = 4-Bromofluorobenz	ene (Surr)			
DFBZ = 1,4-Difluorobenze	ene (Surr)			

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2794-A-1-C MS	Matrix Spike	101	94	
890-2794-A-1-D MSD	Matrix Spike Duplicate	87	83	
890-2803-1	SS03	85	90	
LCS 880-32817/2-A	Lab Control Sample	81	97	
LCSD 880-32817/3-A	Lab Control Sample Dup	78	94	
MB 880-32817/1-A	Method Blank	95	102	
Surrogate Legend				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2803-1 Project/Site: Corral Canyon Expansion SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32835/5-A

Analysis Batch: 32815

**Matrix: Solid** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32835

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	•

MB MB

MD MD

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80	70 - 130	08/24/22 10:24	08/24/22 13:56	1
1,4-Difluorobenzene (Surr)	88	70 - 130	08/24/22 10:24	08/24/22 13:56	1

Lab Sample ID: LCS 880-32835/1-A **Client Sample ID: Lab Control Sample** 

**Matrix: Solid** 

Analysis Batch: 32815

Prep Type: Total/NA Prep Batch: 32835

Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09463 mg/Kg 95 70 - 130 Toluene 0.100 0.09936 mg/Kg 99 70 - 130 0.100 0.09277 Ethylbenzene mg/Kg 93 70 - 130 0.200 0.1944 97 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.1080 70 - 130 o-Xylene mg/Kg 108

LCS LCS

Surrogate	%Recovery Qualifie	r Limits
4-Bromofluorobenzene (Surr)	100	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

Lab Sample ID: LCSD 880-32835/2-A

**Matrix: Solid** 

Analysis Batch: 32815

Prep Type: Total/NA

Prep Batch: 32835

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1047		mg/Kg		105	70 - 130	10	35
Toluene	0.100	0.1049		mg/Kg		105	70 - 130	5	35
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2127		mg/Kg		106	70 - 130	9	35
o-Xylene	0.100	0.1178		mg/Kg		118	70 - 130	9	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	104	70 - 130
1.4-Difluorobenzene (Surr)	107	70 - 130

Lab Sample ID: 890-2802-A-1-A MS

**Matrix: Solid** 

Analysis Batch: 32815

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

Prep Batch: 32835

		Sample	Sample	Spike	MS	MS				%Rec	
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Benzene	<0.00201	U	0.100	0.09061		mg/Kg	_	90	70 - 130	
١	Toluene	<0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130	

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### QC Sample Results

Job ID: 890-2803-1 Client: Ensolum Project/Site: Corral Canyon Expansion SDG: 03E1558084

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

Lab Sample ID: 890-2802-A-1-A MS

Lab Sample ID: 890-2802-A-1-B MSD

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 32815

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 32835

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130	
o-Xylene	<0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	r Limits
4-Bromofluorobenzene (Surr)	110	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 32835

RPD

**Analysis Batch: 32815** Sample Sample Spike MSD MSD Result Qualifier Added RPD Limit Analyte Result Qualifier %Rec Limits Unit Benzene <0.00201 U 0.0990 0.08856 mg/Kg 89 70 - 130 2 35 Toluene <0.00201 U 0.0990 0.09614 mg/Kg 97 70 - 130 4 35 Ethylbenzene <0.00201 U 0.0990 0.09122 92 70 - 130 35 mg/Kg 3 0.198 0.1855 70 - 130 35 m-Xylene & p-Xylene <0.00402 U mg/Kg 94 0.0990 <0.00201 U 0.1006 70 - 130 o-Xylene mg/Kg 102

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-32817/1-A

**Matrix: Solid** 

Analysis Batch: 32810

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

Prep Batch: 32817

MB MB Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte 50.0 08/24/22 08:40 08/24/22 10:43 <50.0 U Gasoline Range Organics mg/Kg (GRO)-C6-C10 08/24/22 10:43 Diesel Range Organics (Over <50.0 U 50.0 08/24/22 08:40 mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 08/24/22 08:40 08/24/22 10:43 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	08/24/22 08:40	08/24/22 10:43	1
o-Terphenyl	102		70 - 130	08/24/22 08:40	08/24/22 10:43	1

Lab Sample ID: LCS 880-32817/2-A

**Matrix: Solid** 

Analysis Batch: 32810

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 32817

	Spik	e LCS	LCS				%Rec	
Analyte	Adde	d Result	Qualifier	Unit	D %	6Rec	Limits	
Gasoline Range Organics	100	0 979.2		mg/Kg		98	70 - 130	 
(GRO)-C6-C10								
Diesel Range Organics (Over	100	0 786.3		mg/Kg		79	70 - 130	
C10-C28)								

Job ID: 890-2803-1 Project/Site: Corral Canyon Expansion

SDG: 03E1558084

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

LCS LCS

Lab Sample ID: LCS 880-32817/2-A Client Sample ID: Lab Control Sample

**Matrix: Solid** 

Client: Ensolum

Analysis Batch: 32810

Prep Type: Total/NA

Prep Batch: 32817

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 81 70 - 130 o-Terphenyl 97 70 - 130

Lab Sample ID: LCSD 880-32817/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

Analysis Batch: 32810

Prep Type: Total/NA Prep Batch: 32817

%Rec RPD Limits **RPD** Limit

Spike LCSD LCSD Analyte Added Result Qualifier Unit D %Rec 1000 930.0 93 70 - 1305 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 765.3 77 mg/Kg 70 - 1303 20 C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 78 70 - 130 o-Terphenyl 94

Lab Sample ID: 890-2794-A-1-C MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

**Analysis Batch: 32810** 

Prep Type: Total/NA

Prep Batch: 32817

Sample Sample MS MS Spike Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <49.9 U 999 1138 mg/Kg 114 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 999 853.2 mg/Kg 85 70 - 130

C10-C28)

MS MS

%Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 101 o-Terphenyl 94 70 - 130

Lab Sample ID: 890-2794-A-1-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** 

Analysis Batch: 32810

Prep Type: Total/NA

Prep Batch: 32817

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit U 998 956.7 Gasoline Range Organics <49.9 96 70 - 130 17 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 998 760.2 mg/Kg 76 70 - 130 12 20 C10-C28)

MSD MSD %Recovery Qualifier

Surrogate Limits 1-Chlorooctane 87 70 - 130 83 70 - 130 o-Terphenyl

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

**Prep Type: Soluble** 

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

### **QC Sample Results**

Client: Ensolum Job ID: 890-2803-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32845/1-A

Matrix: Solid

Analysis Batch: 32874

MB MB

 Analyte
 Result Chloride
 Qualifier
 RL Unit
 Unit
 D mg/Kg
 Prepared Prepared
 Analyzed Maleyzed Prepared Prepared Maleyzed Prepared Prep

Lab Sample ID: LCS 880-32845/2-A

Matrix: Solid

**Analysis Batch: 32874** 

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 234.1 mg/Kg 94 90 - 110

Lab Sample ID: LCSD 880-32845/3-A

Matrix: Solid

Analysis Batch: 32874

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 234.4 mg/Kg 90 - 110

Lab Sample ID: 890-2801-A-4-D MS

Matrix: Solid

Analysis Batch: 32874

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added %Rec Result Qualifier Unit Limits Chloride 44.8 252 297.5 100 90 - 110 mg/Kg

Lab Sample ID: 890-2801-A-4-E MSD

Matrix: Solid

Analysis Batch: 32874

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 252 Chloride 44.8 297.4 mg/Kg 100 90 - 110 0 20

### **QC Association Summary**

Client: Ensolum Job ID: 890-2803-1 Project/Site: Corral Canyon Expansion SDG: 03E1558084

### **GC VOA**

### Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	32835
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32835

### Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

### Analysis Batch: 32863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	Total BTEX	

### **GC Semi VOA**

### Analysis Batch: 32810

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	8015B NM	32817
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015B NM	32817
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32817
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32817
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32817
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32817

### Prep Batch: 32817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

### Analysis Batch: 32902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	8015 NM	

### HPLC/IC

### Leach Batch: 32845

Released to Imaging: 12/2/2022 8:35:09 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## **QC Association Summary**

Client: EnsolumJob ID: 890-2803-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

### **HPLC/IC** (Continued)

### Leach Batch: 32845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

### **Analysis Batch: 32874**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	300.0	32845
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32845

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### Lab Chronicle

Client: EnsolumJob ID: 890-2803-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

Client Sample ID: SS03 Lab Sample ID: 890-2803-1

Matrix: Solid

Date Collected: 08/22/22 13:50 Date Received: 08/23/22 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 14:48	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32863	08/24/22 16:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32902	08/25/22 09:31	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32817	08/24/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1			32810	08/24/22 17:09	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/25/22 00:40	SMC	EET MID

### **Laboratory References:**

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

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### **Accreditation/Certification Summary**

Client: EnsolumJob ID: 890-2803-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

### **Laboratory: Eurofins Midland**

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

Authority Texas		ogram	Identification Number	<b>Expiration Date</b>
		ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report hi	it the laboratory is not certific	ed by the governing authority. This list ma	v include analytes for
the agency does not of	· '	it the laboratory is not certain	ed by the governing authority. This list his	ay include analytes for
0 ,	· '	Matrix	Analyte	ay include analytes for
the agency does not of	fer certification.	,	, , ,	

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### **Method Summary**

Client: Ensolum Job ID: 890-2803-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

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

### **Protocol References:**

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

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

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### **Sample Summary**

Client: Ensolum

Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1

SDG: 03E1558084

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2803-1	SS03	Solid	08/22/22 13:50	08/23/22 08:28	0.5

Circle Method(s) and Ma

Total 200.7 / 6010

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Relinquished by: 15

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Revised Date 08/25/2020 Rev. 2020

eurofins Environment Testing

Phone:

City, State ZIP:

Carlsbad, NM 88220 3122 National Parks Hwy

City, State ZIP:

Carlsbad, NM 88220 3104 E. Green St. XTO Energy Garret Green

Level IV

State of Project:

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

Work Order Comments

www.xenco.com

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Project Manager:

Tacoma Morrissey

Bill to: (if different)

Company Name:

Company Name: Address:

Ensolum

SAMPLE RECEIPT

Samples Received Intact

ooler Custody Seals:

otal Containers: ample Custody Seals:

Sample Identific

SS03

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

# Chain of Custody

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

Work Order No:

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(Signalure)	nt and reling Hiable only Harge of \$85	nd Metal(s) to be analyzed	200.8 / 6020:									on		Yes No	Yes No	Yes	Temp Blank:		Kas	32.15372, -103.99931	03E	Corral Canyon Expansion	303-887-2946
	uishment for the co	e analy	020:					1			S	Matrix		(N/A	A	No	Blank:		Kase Parker	2, -103.	03E1558084	yon Ex	
Receiv	of samples co st of samples a applied to eac	zed									8/22/2022	Date Sampled	Corrected T	Temperature Reading:	Correction Factor:	Thermometer ID:	,€es) No		¥	99931	4	pansion	
Received by: (Signature)	nstitutes a valid and shall not ass h project and a	TCLP / SPLP 6010: 8RCRA	BRCRA 13								13:50	Time Sampled	Corrected Temperature:	re Reading:	Factor:	ter ID:	Wet Ice:	the lab, if received by 4:30pm	TAT starts the day received by	Due Date:	☐ Routine	Turi	Email
ature)	purchase sume any r	SPLP 60	PPM T								0.5	Depth	77	S	1.7	my	₹ Yes	ceived by	ne day rec	24hr	☑ Rush	Turn Around	Email: Garret.Green@ExxonMobil.com
	order from esponsibil 5 for each	10: 8R	exas 11									Grab/ Comp	10	ď	20.00	DOMES	No	4:30pm	eived by	24hr TAT	à.	-	Green(
	client c ity for a sample		Σ			L						# of Cont			Pá	ran	nete	rs			Pres. Code		⊕Exxo
Date/Time	ompany ny losses submitt	Sb As	b As			1	1				×	CHLOR	RIDE	S (E	PA:	300	.0)						nMobil
Time	to Eurof or expe	Ba	ВаВ		1	Ů	L				×	TPH (80	015)										.com
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Rej.	o, its aff curred by nco, but	Cr C	d Ca		_		_							_									
Relinquished by: (Signature)	locument and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its stilliates and subcontractors. It assigns standard ter o 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 imum 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	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	8RCRA 13PPM Texas 11 AISb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K										-	690-2803 Chain of Custody								ANALYSIS REQUEST	Deliverables: EDD
Recei	indard tern imstances i ed unless i	II U	o N K																				es: EDD
ved by:	ms and conditions beyond the control previously negotiat	Į	Se Ag										1					_					
Received by: (Signature)	ms and conditions beyond the control previously negotiated.	g: 1631/	SiO <sub>2</sub> N																				ADaPT 🗆
re)		Hg: 1631 / 245.1 / 7470 / 7471	Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn				AFE:	1056571001	Cost Center:	nAPP2215951900	Incident ID:	Sample	NaOH+Ascort	Zn Acetate+NaOH: Zr	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	NaHSO4: NABIS	H₃PO₄: HP	H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	HCL: HC	Cool: Cool	None: NO	Preserv	T Other:
Date/Time		/7471	VVZM							51900		Sample Comments	NaOH+Ascorbic Acid: SAPC	aOH: Zn	, 0,	SIS		NaOH: Na	HNO <sub>3</sub> : HN	MeOH: Me	DI Water: H <sub>2</sub> O	Preservative Codes	er:
												Pad	ne '	17	٥f	10							

### **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2803-1 SDG Number: 03E1558084

Login Number: 2803 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	

**Eurofins Carlsbad** Page 18 of 19

### **Login Sample Receipt Checklist**

Client: Ensolum

Job Number: 890-2803-1 SDG Number: 03E1558084

Login Number: 2803 **List Source: Eurofins Midland** List Number: 2

List Creation: 08/24/22 10:58 AM

Creator: Rodriguez, Leticia

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

Released to Imaging: 12/2/2022 8:35:09 AM

<6mm (1/4").



**Environment Testing America** 

# **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-2802-1

Laboratory Sample Delivery Group: 03E1558084 Client Project/Site: Corral Canyon Expansion

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

Authorized for release by: 8/25/2022 2:43:24 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum Laboratory Job ID: 890-2802-1 Project/Site: Corral Canyon Expansion

SDG: 03E1558084

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### **Definitions/Glossary**

Job ID: 890-2802-1 Client: Ensolum Project/Site: Corral Canyon Expansion

SDG: 03E1558084

### **Qualifiers**

### **GC VOA**

Qualifier **Qualifier Description** 

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** 

U Indicates the analyte was analyzed for but not detected.

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.							
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis							
%R	Percent Recovery							
CEI	Contains Fron Liquid							

Contains Free Liquid CFL 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

Decision Level Concentration (Radiochemistry) DLC

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

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

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

Not Calculated NC

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

NEG Negative / Absent POS Positive / Present

**PQL** Practical Quantitation Limit

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

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

**TNTC** Too Numerous To Count

### **Case Narrative**

Client: Ensolum Job ID: 890-2802-1 SDG: 03E1558084 Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1

**Laboratory: Eurofins Carlsbad** 

Narrative

**Job Narrative** 890-2802-1

### Receipt

The sample was received on 8/23/2022 8:28 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

### **GC VOA**

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

### GC Semi VOA

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

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

Matrix: Solid

### **Client Sample Results**

Client: EnsolumJob ID: 890-2802-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

Lab Sample ID: 890-2802-1

Client Sample ID: SS04

Date Collected: 08/22/22 13:55 Date Received: 08/23/22 08:28

Sample Depth: 0.5

Chloride

	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 14:22	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 14:22	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 14:22	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/24/22 10:24	08/24/22 14:22	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 14:22	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/24/22 10:24	08/24/22 14:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130			08/24/22 10:24	08/24/22 14:22	1
1,4-Difluorobenzene (Surr)	89		70 - 130			08/24/22 10:24	08/24/22 14:22	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/24/22 16:04	1
Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
Amelute	D14	Qualifier						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0		50.0 FL	<u>Unit</u> mg/Kg	<u>D</u>	Prepared	Analyzed 08/24/22 17:10	Dil Fac
	<50.0	U			<u>D</u>	Prepared		Dil Fac
Total TPH	<50.0	U			D 	Prepared Prepared		Dil Fac
Total TPH Method: 8015B NM - Diesel Ran	<50.0	RO) (GC) Qualifier	50.0	mg/Kg	_ =	<u> </u>	08/24/22 17:10	1
Total TPH  Method: 8015B NM - Diesel Ran Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<50.0 ge Organics (D Result	RO) (GC) Qualifier	50.0	mg/Kg	_ =	Prepared	08/24/22 17:10  Analyzed	Dil Fac
Total TPH  Method: 8015B NM - Diesel Ran Analyte  Gasoline Range Organics (GRO)-C6-C10	<50.0  ge Organics (D  Result  <50.0	RO) (GC) Qualifier U	50.0 RL 50.0	mg/Kg  Unit  mg/Kg	_ =	Prepared 08/24/22 08:40	08/24/22 17:10  Analyzed  08/24/22 16:47	Dil Fac
Total TPH  Method: 8015B NM - Diesel Ran Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0  ge Organics (D  Result  <50.0  <50.0	U RO) (GC) Qualifier U U	50.0  RL  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 08/24/22 08:40 08/24/22 08:40	08/24/22 17:10  Analyzed  08/24/22 16:47  08/24/22 16:47	1 Dil Fac
Total TPH  Method: 8015B NM - Diesel Ran Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0  ge Organics (D)  Result  <50.0  <50.0  <50.0	U RO) (GC) Qualifier U U	50.0  RL  50.0  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 08/24/22 08:40 08/24/22 08:40 08/24/22 08:40	08/24/22 17:10  Analyzed 08/24/22 16:47 08/24/22 16:47	Dil Fac
Total TPH  Method: 8015B NM - Diesel Ran Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	<50.0 ge Organics (D) Result <50.0 <50.0 <50.0 %Recovery	U RO) (GC) Qualifier U U	50.0  RL  50.0  50.0  50.0  Limits	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 08/24/22 08:40 08/24/22 08:40 08/24/22 08:40 Prepared	08/24/22 17:10  Analyzed  08/24/22 16:47  08/24/22 16:47  08/24/22 16:47  Analyzed	1 Dil Fac
Total TPH  Method: 8015B NM - Diesel Ran Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	<50.0 ge Organics (D) Result <50.0 <50.0 <50.0 <50.0 <8covery 90 94	CODE CODE CODE CODE CODE CODE CODE CODE	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 08/24/22 08:40 08/24/22 08:40 08/24/22 08:40  Prepared 08/24/22 08:40	08/24/22 17:10  Analyzed 08/24/22 16:47  08/24/22 16:47  Analyzed  08/24/22 16:47	1 Dil Fac 1 1 1 Dil Fac 2 1

4.96

mg/Kg

13.1

**Eurofins Carlsbad** 

08/25/22 00:33

### **Surrogate Summary**

Client: Ensolum Job ID: 890-2802-1 Project/Site: Corral Canyon Expansion SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2802-1	SS04	97	89	
890-2802-1 MS	SS04	110	103	
890-2802-1 MSD	SS04	109	98	
LCS 880-32835/1-A	Lab Control Sample	100	101	
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107	
MB 880-32835/5-A	Method Blank	80	88	
Surrogate Legend				

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)	
890-2794-A-1-C MS	Matrix Spike	101	94	
890-2794-A-1-D MSD	Matrix Spike Duplicate	87	83	
890-2802-1	SS04	90	94	
LCS 880-32817/2-A	Lab Control Sample	81	97	
LCSD 880-32817/3-A	Lab Control Sample Dup	78	94	
MB 880-32817/1-A	Method Blank	95	102	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2802-1 Project/Site: Corral Canyon Expansion SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32835/5-A

Lab Sample ID: LCS 880-32835/1-A

**Matrix: Solid** 

Analysis Batch: 32815

**Matrix: Solid** Analysis Batch: 32815 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32835

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	1

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	-	08/24/22 10:24	08/24/22 13:56	1
1,4-Difluorobenzene (Surr)	88		70 - 130		08/24/22 10:24	08/24/22 13:56	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 32835

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09463 mg/Kg 95 70 - 130 Toluene 0.100 0.09936 mg/Kg 99 70 - 130 0.100 0.09277 Ethylbenzene mg/Kg 93 70 - 130 0.200 0.1944 97 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.1080 70 - 130 o-Xylene mg/Kg 108

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	100	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

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

**Matrix: Solid** 

Analysis Batch: 32815

Lab Sample ID: LCSD 880-32835/2-A

Prep Type: Total/NA Prep Batch: 32835

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1047		mg/Kg		105	70 - 130	10	35	
Toluene	0.100	0.1049		mg/Kg		105	70 - 130	5	35	
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130	11	35	
m-Xylene & p-Xylene	0.200	0.2127		mg/Kg		106	70 - 130	9	35	
o-Xylene	0.100	0.1178		mg/Kg		118	70 - 130	9	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1.4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-2802-1 MS

**Matrix: Solid** 

Analysis Batch: 32815

Client Sample ID: SS04 Prep Type: Total/NA

Prep Batch: 32835

_	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.09061		mg/Kg		90	70 - 130	
Toluene	<0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130	

## **QC Sample Results**

Client: Ensolum Job ID: 890-2802-1 SDG: 03E1558084 Project/Site: Corral Canyon Expansion

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

Lab Sample ID: 890-2802-1 MS

**Analysis Batch: 32815** 

Client Sample ID: SS04 **Matrix: Solid Prep Type: Total/NA** Prep Batch: 32835

Sample	Sample	Spike	MS	MS				%Rec
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130
<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130
< 0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130
	Result < 0.00201 < 0.00402	Result   Qualifier	Result         Qualifier         Added           <0.00201	Result         Qualifier         Added         Result           <0.00201	Result         Qualifier         Added         Result         Qualifier           <0.00201	Result         Qualifier         Added         Result         Qualifier         Unit           <0.00201	Result Qualifier         Added Added         Result Qualifier         Unit D may/Kg         D           <0.00201	Result Qualifier         Added Added         Result Qualifier         Unit Unit Unit Unit Unit Unit Unit Unit

MS MS

Surrogate	%Recovery Qua	lifier Limits
4-Bromofluorobenzene (Surr)	110	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: 890-2802-1 MSD

**Matrix: Solid** 

**Analysis Batch: 32815** 

**Client Sample ID: SS04** Prep Type: Total/NA Prep Batch: 32835

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U	0.0990	0.08856		mg/Kg		89	70 - 130	2	35
Toluene	<0.00201	U	0.0990	0.09614		mg/Kg		97	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0990	0.09122		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1855		mg/Kg		94	70 - 130	4	35
o-Xylene	<0.00201	U	0.0990	0.1006		mg/Kg		102	70 - 130	4	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-32817/1-A

**Matrix: Solid** 

Analysis Batch: 32810

Client Sample ID: Method Blank	A
Prep Type: Total/NA	
Prep Batch: 32817	
	MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/24/22 08:40	08/24/22 10:43	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/24/22 08:40	08/24/22 10:43	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 08:40	08/24/22 10:43	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	08/24/22 08:40	08/24/22 10:43	1
o-Terphenyl	102		70 - 130	08/24/22 08:40	08/24/22 10:43	1

Lab Sample ID: LCS 880-32817/2-A

**Matrix: Solid** 

Matrix: Solid							Prep Ty	pe: Total/NA
Analysis Batch: 32810							Prep E	Batch: 32817
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	979.2		mg/Kg		98	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	786.3		mg/Kg		79	70 - 130	
C10-C28)								

**Eurofins Carlsbad** 

Client Sample ID: Lab Control Sample

C10-C28)

o-Terphenyl

Job ID: 890-2802-1

Client: Ensolum Project/Site: Corral Canyon Expansion SDG: 03E1558084

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

Lab Sample ID: LCS 880-32817/2-A Client Sample ID: Lab Control Sample

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 32810 Prep Batch: 32817

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 81 70 - 130 o-Terphenyl 97 70 - 130

Lab Sample ID: LCSD 880-32817/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 32810 Prep Batch: 32817

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 930.0 93 70 - 1305 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 765.3 77 mg/Kg 70 - 1303 20

LCSD LCSD Surrogate %Recovery Qualifier Limits 78 70 - 130 1-Chlorooctane 70 - 130 o-Terphenyl 94

Lab Sample ID: 890-2794-A-1-C MS Client Sample ID: Matrix Spike

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

**Analysis Batch: 32810** Prep Batch: 32817 Sample Sample MS MS Spike

Analyte Added Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <49.9 U 999 1138 mg/Kg 114 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 999 853.2 mg/Kg 85 70 - 130

C10-C28)

70 - 130

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 101

94

Lab Sample ID: 890-2794-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

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

Analysis Batch: 32810 Prep Batch: 32817 Camania Camania Calle

	Sample	Sample	<b>Бріке</b>	MSD	M2D				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	<49.9	U	998	956.7		mg/Kg		96	70 - 130	17	20	
(GRO)-C6-C10												
Diesel Range Organics (Over	<49.9	U	998	760.2		mg/Kg		76	70 - 130	12	20	
C10-C28)												

MSD MSD Qualifier %Recovery Surrogate Limits 1-Chlorooctane 87 70 - 130 83 70 - 130 o-Terphenyl

Client: Ensolum Job ID: 890-2802-1 Project/Site: Corral Canyon Expansion

SDG: 03E1558084

**Prep Type: Soluble** 

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32845/1-A

**Matrix: Solid** 

Analysis Batch: 32874

MB MB

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 08/24/22 21:08

Lab Sample ID: LCS 880-32845/2-A **Matrix: Solid** 

**Analysis Batch: 32874** 

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 234.1 mg/Kg 94 90 - 110

Lab Sample ID: LCSD 880-32845/3-A

**Matrix: Solid** 

Analysis Batch: 32874

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 234.4 mg/Kg 90 - 110

Lab Sample ID: 890-2801-A-4-D MS

**Matrix: Solid** 

Analysis Batch: 32874

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added %Rec Result Qualifier Unit Limits Chloride 44.8 252 297.5 100 90 - 110 mg/Kg

Lab Sample ID: 890-2801-A-4-E MSD

**Matrix: Solid** 

Analysis Batch: 32874

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 252 Chloride 44.8 297.4 mg/Kg 100 90 - 110 0 20

Client: EnsolumJob ID: 890-2802-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

**GC VOA** 

Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-1 MS	SS04	Total/NA	Solid	8021B	32835
890-2802-1 MSD	SS04	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-1 MS	SS04	Total/NA	Solid	5035	
890-2802-1 MSD	SS04	Total/NA	Solid	5035	

Analysis Batch: 32862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	Total BTEX	

**GC Semi VOA** 

Analysis Batch: 32810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	8015B NM	32817
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015B NM	32817
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32817
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32817
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32817
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32817

Prep Batch: 32817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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Page 11 of 19

Client: EnsolumJob ID: 890-2802-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

**HPLC/IC** (Continued)

Leach Batch: 32845 (Continued)

Lab Sa	ample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-28	801-A-4-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-28	801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

**Analysis Batch: 32874** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	300.0	32845
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32845

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#### **Lab Chronicle**

Client: Ensolum Job ID: 890-2802-1 Project/Site: Corral Canyon Expansion SDG: 03E1558084

Client Sample ID: SS04 Lab Sample ID: 890-2802-1

Matrix: Solid

Date Collected: 08/22/22 13:55 Date Received: 08/23/22 08:28

	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	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 14:22	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32862	08/24/22 16:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32872	08/24/22 17:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32817	08/24/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1			32810	08/24/22 16:47	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/25/22 00:33	SMC	EET MID

#### **Laboratory References:**

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

## **Accreditation/Certification Summary**

Client: Ensolum Job ID: 890-2802-1 Project/Site: Corral Canyon Expansion SDG: 03E1558084

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

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

Authority		ogram	Identification Number	Expiration Date	
Texas		ELAP	T104704400-22-24	06-30-23	
The following analytes	are included in this report, bu	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes for	
the agency does not of	fer certification.	•	, , ,	·, ·····	
the agency does not of Analysis Method	fer certification .  Prep Method	Matrix	Analyte	,	
0 ,		Matrix Solid	, , ,		

## **Method Summary**

Client: Ensolum Job ID: 890-2802-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

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

#### **Protocol References:**

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

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

**Eurofins Carlsbad** 

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## **Sample Summary**

Client: Ensolum

Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1

SDG: 03E1558084

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2802-1	SS04	Solid	08/22/22 13:55	08/23/22 08:28	0.5

Total 200.7 / 6010

200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B

TCLP / SPLP 6010: 8RCRA

Sb As Ba

Ве

Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Cd Ca Cr Co Cu Fe Pb Mg Mn Mo

Z. ス Se

Ag SiO<sub>2</sub> Na Sr

TI STU V Zn

AFE:

Cost Center:

1056571001

nAPP2215951900 Incident ID:

Hg: 1631 / 245.1 / 7470 / 7471

Phone:

Corral Canyon Expansion

**Turn Around** 

☑ Rush

Code

**ANALYSIS REQUEST** 

Cool: Cool

MeOH: Me

NaOH: Na HNO3: HN None: NO

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

03E1558084

32.15372, -103.99931

Due Date: ☐ Routine

24hr TAT

TAT starts the day received by the lab, if received by 4:30pm

Kase Parker

City, State ZIP

Project Manag

Company Nam Address:

Samples Received Intact: SAMPLE RECEIPT

Cooler Custody Seals:

Yes No MA

Correction Factor: Thermometer ID:

0 50 W

7 %

CHLORIDES (EPA: 300.0)

890-2802 Chain of Custody

Yes emp Blank:

8

Yes) No

Wet Ice:

(Kes

No

**Parameters** 

Yes No N/A Temperature Reading:

Corrected Temperature:

ample Custody Seals:

Sample Identification SS04

Matrix S

Date

Time

Depth

Comp Grab/

Cont # 0

TPH (8015)

BTEX (8021

Sampled

8/22/2022 Sampled

13:55

0.5

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

# Chain of Custody

Preservative Codes	ANALYSIS REQUEST	Turn Around	Corral Canvon Expansion	
11		Email:   Garret.Green@ExxonMobil.com	303-887-2946	30
Reporting: Level II   Level III   PSI/OSI   IRRP   Level IV	A 88220	City, State ZIP:	Carlsbad, NM 88220	C
State of Project:	3104 E. Green St. State	Address:	3122 National Parks Hwy	31
Program: UST/PST  PRP Brownfields  RRC  Superfund	XTO Energy	Company Name:	Ensolum	e.
Work Order Comments	Garret Green	Bill to: (if different)	Tacoma Morrissey	er: Ta
www.xenco.com Page / of /				
	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	Hobbs		
	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	EL Pa	Xenco	
Work Order No:	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334		Environment testing	
	Houston, TX (281) 240-4200. Dallas, TX (214) 902-0300			

NaOH+Ascorbic Acid: SAPC

Sample Comments

Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>: NaSO<sub>3</sub> Zn Acetate+NaOH: Zn

NaHSO<sub>4</sub>: NABIS

H3PO4: HP H<sub>2</sub>S0<sub>4</sub>: H<sub>2</sub>

## **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2802-1 SDG Number: 03E1558084

Login Number: 2802 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: 890-2802-1

SDG Number: 03E1558084

List Source: Eurofins Midland List Creation: 08/24/22 10:58 AM

Creator: Rodriguez, Leticia

Login Number: 2802

List Number: 2

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	

3 UJ 130

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<6mm (1/4").



**Environment Testing America** 

# **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-2801-1

Laboratory Sample Delivery Group: 03E1558084 Client Project/Site: CORRAL CANYON EXPANSION

For:

eurofins

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

Authorized for release by: 8/25/2022 2:42:57 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

EOL **Have a Question?** 

.....LINKS

**Review your project** results through

Received by OCD: 8/31/2022 1:09:15 PM

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 12/2/2022 8:35:09 AM

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

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

Client: Ensolum Project/Site: CORRAL CANYON EXPANSION Laboratory Job ID: 890-2801-1 SDG: 03E1558084

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#### **Definitions/Glossary**

Job ID: 890-2801-1 Client: Ensolum Project/Site: CORRAL CANYON EXPANSION

SDG: 03E1558084

#### **Qualifiers**

**GC VOA** 

Qualifier **Qualifier Description** 

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** 

U Indicates the analyte was analyzed for but not detected.

**Glossary** 

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

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

%R Percent Recovery CFL Contains Free Liquid Colony Forming Unit CFU **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) Limit of Quantitation (DoD/DOE) LOQ

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

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

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) TFF Toxicity Equivalent Quotient (Dioxin) **TEQ** 

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: Ensolum

Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1

SDG: 03E1558084

Job ID: 890-2801-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2801-1

#### Receipt

The samples were received on 8/23/2022 8:28 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 5.6°C

#### **GC VOA**

Method 8021B: The method blank for preparation batch 880-32835 and analytical batch 880-32815 contained Ethylbenzene, m-Xylene & p-Xylene and Xylenes, Total above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

#### 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 / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32845 and analytical batch 880-32874 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits. The associated samples are: PH01 (890-2801-1), PH01A (890-2801-2) and PH02 (890-2801-3).

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

Lab Sample ID: 890-2801-1

Client: Ensolum Job ID: 890-2801-1

Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

**Client Sample ID: PH01** Date Collected: 08/22/22 13:20 Date Received: 08/23/22 08:28

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 20:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 20:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 20:33	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/24/22 10:24	08/24/22 20:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 20:33	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/24/22 10:24	08/24/22 20:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			08/24/22 10:24	08/24/22 20:33	1
1,4-Difluorobenzene (Surr)	103		70 - 130			08/24/22 10:24	08/24/22 20:33	1
Method: Total BTEX - Total BTE	K Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399	mg/Kg			08/25/22 09:42	1
Mothod: 8015 NM - Digeal Range								
Method: 8015 NM - Diesel Range Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	•	Qualifier	<b>RL</b> 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/24/22 21:20	
Analyte Total TPH	Result   <49.9	Qualifier U			<u>D</u>	Prepared		
Analyte	Result <49.9  ge Organics (Di	Qualifier U			<u>D</u>	Prepared Prepared		1
Analyte Total TPH  Method: 8015B NM - Diesel Rang	Result <49.9  ge Organics (Di	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg			08/24/22 21:20	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <49.9  ge Organics (Di Result	Qualifier U  RO) (GC) Qualifier U	49.9	mg/Kg		Prepared	08/24/22 21:20  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9  ge Organics (Di Result <49.9	Qualifier U  RO) (GC) Qualifier U	49.9  RL 49.9	mg/Kg  Unit  mg/Kg		Prepared 08/24/22 08:38	08/24/22 21:20  Analyzed  08/24/22 15:21	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <49.9	Qualifier U  RO) (GC) Qualifier U	49.9  RL 49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/24/22 08:38	08/24/22 21:20  Analyzed  08/24/22 15:21  08/24/22 15:21	1 Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   <49.9	Qualifier U  RO) (GC) Qualifier U	49.9  RL 49.9  49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38	08/24/22 21:20  Analyzed 08/24/22 15:21 08/24/22 15:21 08/24/22 15:21	1 Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <49.9	Qualifier U  RO) (GC) Qualifier U	49.9  RL 49.9  49.9  49.9  Limits	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38 08/24/22 08:38 Prepared	08/24/22 21:20  Analyzed  08/24/22 15:21  08/24/22 15:21  08/24/22 15:21  Analyzed	Dil Fac  1  1  Dil Fac  1  1  Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <49.9	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38 08/24/22 08:38 Prepared 08/24/22 08:38	08/24/22 21:20  Analyzed 08/24/22 15:21 08/24/22 15:21  08/24/22 15:21  Analyzed 08/24/22 15:21	Dil Fac  1  1  Dil Fac  1  1  Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result <49.9  ge Organics (D) Result <49.9 <49.9 <49.9  %Recovery 81 89  omatography -	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38 08/24/22 08:38 Prepared 08/24/22 08:38	08/24/22 21:20  Analyzed 08/24/22 15:21 08/24/22 15:21  08/24/22 15:21  Analyzed 08/24/22 15:21	Dil Fac  Dil Fac  Dil Fac  Dil Fac  Dil Fac

Client Sample ID: PH01A Lab Sample ID: 890-2801-2 Date Collected: 08/22/22 14:05

Date Received: 08/23/22 08:28

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 20:59	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 20:59	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 20:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/24/22 10:24	08/24/22 20:59	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 20:59	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/24/22 10:24	08/24/22 20:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			08/24/22 10:24	08/24/22 20:59	

**Eurofins Carlsbad** 

**Matrix: Solid** 

Lab Sample ID: 890-2801-2

Client: Ensolum

Job ID: 890-2801-1 Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

**Client Sample ID: PH01A** Date Collected: 08/22/22 14:05

Date Received: 08/23/22 08:28

Sample Depth: 2'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	101		70 - 130	08/24/22 10:24	08/24/22 20:59	1

Method: To	ntal RTFY.	Total BTEX	Calculation
mictilou. It	Jiai Di La	TOTAL DIEX	Odiculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/25/22 09:42	1

l .		
Mothod: 904E NM Dia	sel Range Organics (DRO) (GC)	١
INICITIOU. OUTS ININI - DIC	sei Kange Organics (DKO) (GC)	,

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			08/24/22 21:20	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		08/24/22 08:38	08/24/22 15:43	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/24/22 08:38	08/24/22 15:43	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/24/22 08:38	08/24/22 15:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qu	ualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130		08/24/22 08:38	08/24/22 15:43	1
o-Terphenyl	89		70 - 130	C	08/24/22 08:38	08/24/22 15:43	1

Method: 300.0 -	Anions, Ion	Chromat	tograph	าу - 🤄	Soluble	Э
					_	

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.3	4.99	mg/Kg			08/24/22 23:06	1

**Client Sample ID: PH02** Lab Sample ID: 890-2801-3 Matrix: Solid

Date Collected: 08/22/22 13:25 Date Received: 08/23/22 08:28

Sample Depth: 0.5'

Mathadi 0004D	Valatile Overen	ic Compounds (GC)
Memoo: Auzib	- voianie Urdan	ic Compounds (GC)

Michiga. 002 1D - Volatile Orga	inc compounds	(30)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			08/24/22 10:24	08/24/22 21:25	1
1,4-Difluorobenzene (Surr)	99		70 - 130			08/24/22 10:24	08/24/22 21:25	1

Mothod:	Total RTEY	- Total RTFY	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg		_	08/25/22 09:42	1

	Method: 8015 NM - Diesel	Range Organics (DRO	) (GC)
ı	Michiga. 00 to Min - Diese	i italige Organics (Dito	, (00)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/24/22 21:20	1

Lab Sample ID: 890-2801-3

## **Client Sample Results**

Client: Ensolum Job ID: 890-2801-1 Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

**Client Sample ID: PH02** 

Date Collected: 08/22/22 13:25 Date Received: 08/23/22 08:28

Sample Depth: 0.5'

Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 16:26	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 16:26	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 16:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			08/24/22 08:38	08/24/22 16:26	1
o-Terphenyl	88		70 - 130			08/24/22 08:38	08/24/22 16:26	1
- Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	72.7		4.99	mg/Kg			08/24/22 23:14	1

Lab Sample ID: 890-2801-4 Client Sample ID: PH02A Date Collected: 08/22/22 14:15 Matrix: Solid

Date Received: 08/23/22 08:28

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 21:52	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 21:52	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 21:52	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/24/22 10:24	08/24/22 21:52	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 21:52	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/24/22 10:24	08/24/22 21:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130			08/24/22 10:24	08/24/22 21:52	1
1,4-Difluorobenzene (Surr)	94		70 - 130			08/24/22 10:24	08/24/22 21:52	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/25/22 09:42	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/24/22 21:20	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	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 16:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 16:47	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 16:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			08/24/22 08:38	08/24/22 16:47	1
o-Terphenyl	87		70 - 130			08/24/22 08:38	08/24/22 16:47	1

## **Client Sample Results**

Client: Ensolum Project/Site: CORRAL CANYON EXPANSION Job ID: 890-2801-1 SDG: 03E1558084

Matrix: Solid

Lab Sample ID: 890-2801-4

Date Received: 08/23/22 08:28 Sample Depth: 2'

Method: 300.0 - Anions, Ion Chromatography - Soluble								
	Analyte	Result Qualifi	ier RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	44.8	5.03	mg/Kg			08/24/22 23:22	1

**Client Sample ID: PH03** Lab Sample ID: 890-2801-5 Matrix: Solid

Date Collected: 08/22/22 13:30 Date Received: 08/23/22 08:28

Client Sample ID: PH02A

Date Collected: 08/22/22 14:15

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 22:18	
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 22:18	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 22:18	
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/24/22 10:24	08/24/22 22:18	
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 22:18	
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/24/22 10:24	08/24/22 22:18	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	103		70 - 130			08/24/22 10:24	08/24/22 22:18	
1,4-Difluorobenzene (Surr)	101		70 - 130			08/24/22 10:24	08/24/22 22:18	
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/25/22 09:42	
Method: 8015 NM - Diesel Range			Б.	11-14		Burnand	Amakanad	D:: F-
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.9	U	49.9	mg/Kg			08/24/22 21:20	•
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/24/22 08:38	08/24/22 17:09	,
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/24/22 08:38	08/24/22 17:09	,
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/24/22 08:38	08/24/22 17:09	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	78		70 - 130			08/24/22 08:38	08/24/22 17:09	
o-Terphenyl	85		70 - 130			08/24/22 08:38	08/24/22 17:09	
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa

Lab Sample ID: 890-2801-6

## **Client Sample Results**

Client: Ensolum Job ID: 890-2801-1
Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

**Client Sample ID: PH03A** 

Date Collected: 08/22/22 14:25 Date Received: 08/23/22 08:28

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		08/24/22 10:24	08/24/22 22:44	
Toluene	<0.00198	U	0.00198	mg/Kg		08/24/22 10:24	08/24/22 22:44	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/24/22 10:24	08/24/22 22:44	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		08/24/22 10:24	08/24/22 22:44	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		08/24/22 10:24	08/24/22 22:44	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		08/24/22 10:24	08/24/22 22:44	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	104		70 - 130			08/24/22 10:24	08/24/22 22:44	
1,4-Difluorobenzene (Surr)	101		70 - 130			08/24/22 10:24	08/24/22 22:44	1
Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00396	U	0.00396	mg/Kg			08/25/22 09:42	
Method: 8015 NM - Diesel Range			DI.	1114	_	Danasasas	A b d	D!! F-
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	
		Qualifier	<b>RL</b> 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/24/22 21:20	
Analyte		Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH	Result <49.9  ge Organics (Di	Qualifier U			D	Prepared Prepared		
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <49.9  ge Organics (Di	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg			08/24/22 21:20	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	ge Organics (D) Result <49.9  49.9	Qualifier U  RO) (GC) Qualifier U	49.9  RL 49.9	mg/Kg  Unit  mg/Kg		Prepared 08/24/22 08:38	08/24/22 21:20  Analyzed  08/24/22 17:30	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9  ge Organics (Dige Result	Qualifier U  RO) (GC) Qualifier U	49.9	mg/Kg		Prepared	08/24/22 21:20  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	ge Organics (D) Result <49.9  49.9	Qualifier U  RO) (GC) Qualifier U	49.9  RL 49.9	mg/Kg  Unit  mg/Kg		Prepared 08/24/22 08:38	08/24/22 21:20  Analyzed  08/24/22 17:30	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <49.9	Qualifier U  RO) (GC) Qualifier U  U	49.9  RL 49.9  49.9	mg/Kg  Unit  mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38	08/24/22 21:20  Analyzed  08/24/22 17:30  08/24/22 17:30	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <49.9	Qualifier U  RO) (GC) Qualifier U  U	49.9  RL 49.9  49.9  49.9	mg/Kg  Unit  mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38	08/24/22 21:20  Analyzed 08/24/22 17:30 08/24/22 17:30 08/24/22 17:30	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   <49.9	Qualifier U  RO) (GC) Qualifier U  U	49.9  RL 49.9  49.9  49.9  Limits	mg/Kg  Unit  mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38 08/24/22 08:38 Prepared	08/24/22 21:20  Analyzed  08/24/22 17:30  08/24/22 17:30  08/24/22 17:30  Analyzed	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <49.9	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38 08/24/22 08:38 Prepared 08/24/22 08:38	08/24/22 21:20  Analyzed 08/24/22 17:30 08/24/22 17:30  Analyzed 08/24/22 17:30	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result   <49.9	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38 08/24/22 08:38 Prepared 08/24/22 08:38	08/24/22 21:20  Analyzed 08/24/22 17:30 08/24/22 17:30  Analyzed 08/24/22 17:30	Dil Fac

Client Sample ID: PH04

Date Collected: 08/22/22 13:35 Date Received: 08/23/22 08:28

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/23/22 10:42	08/24/22 20:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/23/22 10:42	08/24/22 20:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/23/22 10:42	08/24/22 20:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/23/22 10:42	08/24/22 20:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/23/22 10:42	08/24/22 20:53	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/23/22 10:42	08/24/22 20:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/23/22 10:42	08/24/22 20:53	

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Matrix: Solid

Lab Sample ID: 890-2801-7

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13

Lab Sample ID: 890-2801-7

Lab Sample ID: 890-2801-8

**Matrix: Solid** 

Job ID: 890-2801-1

Client: Ensolum Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

**Client Sample ID: PH04** 

Date Collected: 08/22/22 13:35 Date Received: 08/23/22 08:28

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds	(GC) (Continued)
Method. 002 1D - Volatile Organic Compounds	(OO) (Oolillillided)

Surrogate	%Recovery C	Qualifier Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103	70 - 130	08/23/22 10:42	08/24/22 20:53	1

Mathad:	Total	RTFY.	. Total	RTEY	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/25/22 09:42	1

Mothod: 8015 NM	Diosal Range	Organice	(DRO) (GC)

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	191	49.9	mg/Kg			08/24/22 21:20	1

Method: 8015B	NM Discol	Dange Ore	aaniee (DD(	)) (CC)
MICHIOU. OU IOD	INIVI - DIESEI	Rallue Oli	ualiics lunc	JI (GC)

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9 U	49.9	mg/Kg		08/24/22 08:38	08/24/22 17:51	1
Diesel Range Organics (Over C10-C28)	122	49.9	mg/Kg		08/24/22 08:38	08/24/22 17:51	1
Oll Range Organics (Over C28-C36)	69.0	49.9	mg/Kg		08/24/22 08:38	08/24/22 17:51	1
•							

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82	70 - 130	08/24/22 08:38	08/24/22 17:51	1
o-Terphenyl	84	70 - 130	08/24/22 08:38	08/24/22 17:51	1

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	83.1	5.00	mg/Kg			08/25/22 00:17	1

Client Sample ID: PH04A

Date Collected: 08/22/22 14:35

Date Received: 08/23/22 08:28

Sample Depth: 2'

Michiga. 002 1D - Volutile Orga	ino compounds (	,00,						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/23/22 10:42	08/24/22 21:14	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/23/22 10:42	08/24/22 21:14	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/23/22 10:42	08/24/22 21:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/23/22 10:42	08/24/22 21:14	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/23/22 10:42	08/24/22 21:14	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/23/22 10:42	08/24/22 21:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			08/23/22 10:42	08/24/22 21:14	1
1,4-Difluorobenzene (Surr)	103		70 - 130			08/23/22 10:42	08/24/22 21:14	1

Analy	yte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total	BTEX	<0.00402	U	0.00402	mg/Kg			08/25/22 09:42	1

Lab Sample ID: 890-2801-8

08/25/22 00:25

## **Client Sample Results**

Client: Ensolum Job ID: 890-2801-1
Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

Client Sample ID: PH04A

Date Collected: 08/22/22 14:35 Date Received: 08/23/22 08:28

Sample Depth: 2'

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/24/22 21:20	1
Method: 8015B NM - Diesel Rang	e 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		08/24/22 08:38	08/24/22 18:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/24/22 08:38	08/24/22 18:13	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/24/22 08:38	08/24/22 18:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			08/24/22 08:38	08/24/22 18:13	1
o-Terphenyl	91		70 - 130			08/24/22 08:38	08/24/22 18:13	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

24.8

98.8

mg/Kg

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4

6

8

46

11

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## **Surrogate Summary**

Job ID: 890-2801-1 Client: Ensolum Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		DED :	DED=/	Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-18428-A-9-A MS	Matrix Spike	96	101	
880-18428-A-9-B MSD	Matrix Spike Duplicate	99	104	
890-2801-1	PH01	106	103	
890-2801-2	PH01A	102	101	
890-2801-3	PH02	105	99	
890-2801-4	PH02A	83	94	
890-2801-5	PH03	103	101	
890-2801-6	PH03A	104	101	
890-2801-7	PH04	117	103	
890-2801-8	PH04A	99	103	
890-2802-A-1-A MS	Matrix Spike	110	103	
890-2802-A-1-B MSD	Matrix Spike Duplicate	109	98	
LCS 880-32772/1-A	Lab Control Sample	105	98	
LCS 880-32835/1-A	Lab Control Sample	100	101	
LCSD 880-32772/2-A	Lab Control Sample Dup	100	101	
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107	
MB 880-32772/5-A	Method Blank	79	118	
	Method Blank	80	88	

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)	
880-18436-A-1-E MS	Matrix Spike	82	81	
880-18436-A-1-F MSD	Matrix Spike Duplicate	83	82	
890-2801-1	PH01	81	89	
890-2801-2	PH01A	81	89	
890-2801-3	PH02	81	88	
890-2801-4	PH02A	81	87	
890-2801-5	PH03	78	85	
390-2801-6	PH03A	82	89	
390-2801-7	PH04	82	84	
890-2801-8	PH04A	87	91	
LCS 880-32816/2-A	Lab Control Sample	95	104	
LCSD 880-32816/3-A	Lab Control Sample Dup	105	117	
MB 880-32816/1-A	Method Blank	93	107	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

Client: Ensolum Job ID: 890-2801-1 Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

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

Lab Sample ID: MB 880-32772/5-A

Lab Sample ID: LCS 880-32772/1-A

**Matrix: Solid** 

**Analysis Batch: 32836** 

**Matrix: Solid** Analysis Batch: 32836

MR MR

Client	Sample	ID:	Method	Blank

Prep Type: Total/NA

Prep Batch: 32772

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/23/22 10:42	08/24/22 14:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/23/22 10:42	08/24/22 14:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/23/22 10:42	08/24/22 14:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/23/22 10:42	08/24/22 14:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/23/22 10:42	08/24/22 14:51	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/23/22 10:42	08/24/22 14:51	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepare	ed	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	08/23/22 1	10:42	08/24/22 14:51	1
1,4-Difluorobenzene (Surr)	118		70 - 130	08/23/22 1	10:42	08/24/22 14:51	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 32772

Prep Type: Total/NA

Prep Batch: 32772

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09872 mg/Kg 99 70 - 130 Toluene 0.100 0.1103 mg/Kg 110 70 - 130 0.100 Ethylbenzene 0.1125 mg/Kg 113 70 - 130 0.200 106 70 - 130 m-Xylene & p-Xylene 0.2113 mg/Kg 0.100 0.1122 70 - 130 o-Xylene mg/Kg 112

LCS LCS

Surrogate	%Recovery Quali	fier Limits
4-Bromofluorobenzene (Surr)	105	70 - 130
1,4-Difluorobenzene (Surr)	98	70 - 130

Lab Sample ID: LCSD 880-32772/2-A **Client Sample ID: Lab Control Sample Dup** 

**Matrix: Solid** 

Analysis Batch: 32836

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09581		mg/Kg		96	70 - 130	3	35
Toluene	0.100	0.1040		mg/Kg		104	70 - 130	6	35
Ethylbenzene	0.100	0.1058		mg/Kg		106	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.1977		mg/Kg		99	70 - 130	7	35
o-Xylene	0.100	0.1052		mg/Kg		105	70 - 130	6	35

LCSD LCSD

<0.00202 U

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	100	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

Lab Sample ID: 880-18428-A-9-A MS

**Matrix: Solid** 

Toluene

Analysis Batch: 32836									Pre	p Batch: 3	32772
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	<0.00202	U	0.0998	0.08869		mg/Kg		89	70 - 130		

0.09107

mg/Kg

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

70 - 130

0.0998

8/25/2022

#### QC Sample Results

Client: Ensolum Job ID: 890-2801-1 Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

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

Lab Sample ID: 880-18428-A-9-A MS

**Matrix: Solid** 

Analysis Batch: 32836

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 32772

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00202 U 0.0998 0.08911 89 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00404 0.200 0.1640 mg/Kg 82 70 - 130 0.0998 0.08683 o-Xylene <0.00202 U mg/Kg 87 70 - 130

MS MS

Surrogate	%Recovery Qua	alifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 32772

RPD

Lab Sample ID: 880-18428-A-9-B MSD **Matrix: Solid** 

Analysis Batch: 32836

Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier RPD Limit Analyte Unit %Rec Limits 0.100 Benzene <0.00202 U 0.09044 mg/Kg 90 70 - 130 2 35 Toluene <0.00202 U 0.09690 97 35 0.100 mg/Kg 70 - 130 6 Ethylbenzene <0.00202 U 0.100 0.09457 mg/Kg 94 70 - 130 6 35 <0.00404 U 0.201 0.1709 85 70 - 130 35 m-Xylene & p-Xylene mg/Kg 0.100 <0.00202 U 0.09105 91 70 - 130 o-Xylene mg/Kg 5

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	99	70 - 130
1,4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: MB 880-32835/5-A

**Matrix: Solid** 

Analysis Batch: 32815

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32835

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	1

MB MB

Surrogate	%Recovery Qual	lifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80	70 - 130	08/24/22 10:24	08/24/22 13:56	1
1,4-Difluorobenzene (Surr)	88	70 - 130	08/24/22 10:24	08/24/22 13:56	1

Lab Sample ID: LCS 880-32835/1-A

**Matrix: Solid** 

Analysis Batch: 32815

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 32835

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09463		mg/Kg		95	70 - 130	
Toluene	0.100	0.09936		mg/Kg		99	70 - 130	
Ethylbenzene	0.100	0.09277		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	0.200	0.1944		mg/Kg		97	70 - 130	

Client: Ensolum

Job ID: 890-2801-1

SDG: 03E1558084

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

Lab Sample ID: LCS 880-32835/1-A **Matrix: Solid** 

Project/Site: CORRAL CANYON EXPANSION

**Analysis Batch: 32815** 

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 32835

Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits o-Xylene 0.100 0.1080 108 70 - 130 mg/Kg

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 100 70 - 130 70 - 130

101

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 880-32835/2-A **Matrix: Solid** 

Lab Sample ID: 890-2802-A-1-A MS

**Matrix: Solid** 

Matrix: Solid

Analysis Batch: 32815

**Analysis Batch: 32815** 

1,4-Difluorobenzene (Surr)

Prep Type: Total/NA

Prep Batch: 32835

	Spike	LCSD LCSD				%Rec		RPD
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1047	mg/Kg		105	70 - 130	10	35
Toluene	0.100	0.1049	mg/Kg		105	70 - 130	5	35
Ethylbenzene	0.100	0.1031	mg/Kg		103	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2127	mg/Kg		106	70 - 130	9	35
o-Xylene	0.100	0.1178	mg/Kg		118	70 - 130	9	35

35 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 32835

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.09061		mg/Kg		90	70 - 130	
Toluene	<0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130	
Ethylbenzene	<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130	
o-Xylene	<0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	110	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analysis Batch: 32815									Prep	Batch:	32835
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U	0.0990	0.08856		mg/Kg		89	70 - 130	2	35
Toluene	<0.00201	U	0.0990	0.09614		mg/Kg		97	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0990	0.09122		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1855		mg/Kg		94	70 - 130	4	35
o-Xylene	<0.00201	U	0.0990	0.1006		mg/Kg		102	70 - 130	4	35
Toluene Ethylbenzene m-Xylene & p-Xylene	<0.00201 <0.00201 <0.00402	U U	0.0990 0.0990 0.198	0.09614 0.09122 0.1855		mg/Kg mg/Kg mg/Kg		97 92 94	70 - 130 70 - 130 70 - 130	4 3 4 4	35 35 35

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Lab Sample ID: 890-2802-A-1-B MSD

Lab Sample ID: 890-2802-A-1-B MSD

Client: Ensolum Job ID: 890-2801-1 Project/Site: CORRAL CANYON EXPANSION

SDG: 03E1558084

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

**Matrix: Solid** 

Analysis Batch: 32815

**Client Sample ID: Matrix Spike Duplicate** 

Prep Type: Total/NA

Prep Batch: 32835

MSD MSD

Surrogate	%Recovery Qualifie	r Limits
4-Bromofluorobenzene (Surr)	109	70 - 130
1,4-Difluorobenzene (Surr)	98	70 - 130

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

Lab Sample ID: MB 880-32816/1-A

**Matrix: Solid** 

**Analysis Batch: 32812** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32816

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 10:43	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 10:43	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 10:43	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	08/24/22 08:38	08/24/22 10:43	1
o-Terphenyl	107		70 - 130	08/24/22 08:38	08/24/22 10:43	1

Lab Sample ID: LCS 880-32816/2-A Client Sample ID: Lab Control Sample

**Matrix: Solid** 

**Analysis Batch: 32812** 

Prep Type: Total/NA Prep Batch: 32816

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	1000	1002		mg/Kg		100	70 - 130
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	880.5		mg/Kg		88	70 - 130
C10-C28)							

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	95	70 - 130
o-Terphenyl	104	70 - 130

Lab Sample ID: LCSD 880-32816/3-A

**Matrix: Solid** 

Analysis Batch: 32812

Client	Sample	ID: I ah	Control	Sample	Dun

Prep Type: Total/NA

Prep Batch: 32816

-	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1106		mg/Kg		111	70 - 130	10	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1016		mg/Kg		102	70 - 130	14	20
C10-C28)									

LCSD LCSD

Surrogate	%Recovery Qua	alifier Limits
1-Chlorooctane	105	70 - 130
o-Terphenyl	117	70 - 130

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Released to Imaging: 12/2/2022 8:35:09 AM

Job ID: 890-2801-1

Client: Ensolum Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

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

Lab Sample ID: 880-18436-A-1-E MS

Analysis Batch: 32812

**Matrix: Solid** 

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

Prep Batch: 32816

Sample Sample Spike MS MS Result Qualifier Analyte babbA Result Qualifier Unit %Rec Limits Gasoline Range Organics <49.9 U 999 1040 mg/Kg 102 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 999 743.4 mg/Kg 70 70 - 130<49.9 U C10-C28)

MS MS %Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 82 o-Terphenyl 81 70 - 130

Lab Sample ID: 880-18436-A-1-F MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

**Analysis Batch: 32812** 

Prep Type: Total/NA

Prep Batch: 32816

Spike MSD MSD %Rec RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits **RPD** Limit 998 9 Gasoline Range Organics <49.9 U 1139 mg/Kg 112 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 998 744.0 mg/Kg 70 70 - 130 0 20 C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	82		70 - 130

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

Lab Sample ID: MB 880-32845/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 32874** 

MB MB

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 08/24/22 21:08

Lab Sample ID: LCS 880-32845/2-A Client Sample ID: Lab Control Sample **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 32874

	Spike	LCS LC	CS			%Rec	
Analyte	Added	Result Q	ualifier Unit	D	%Rec	Limits	
Chloride	250	234 1	ma/Ka		94	90 - 110	

Lab Sample ID: LCSD 880-32845/3-A Client Sample ID: Lab Control Sample Dup Matrix: Solid **Prep Type: Soluble** 

Analysis Batch: 32874

	Spike	LCSD	LCSD			%Rec		RPD
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	234.4	mg/Kg		94	90 - 110	0	20

## **QC Sample Results**

Client: Ensolum Job ID: 890-2801-1 Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2801-4 MS Client Sample ID: PH02A **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 32874

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	44.8		252	297.5		mg/Kg		100	90 - 110	

Lab Sample ID: 890-2801-4 MSD Client Sample ID: PH02A **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 32874

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier RPD Limit Added Result Qualifier Limits Analyte Unit %Rec Chloride 44.8 252 297.4 mg/Kg 100 90 - 110 0

Client: Ensolum Job ID: 890-2801-1 Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

**GC VOA** 

Prep Batch: 32772

<b>Lab Sample ID</b> 890-2801-7	Client Sample ID PH04	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
890-2801-8	PH04A	Total/NA	Solid	5035	
MB 880-32772/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32772/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32772/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18428-A-9-A MS	Matrix Spike	Total/NA	Solid	5035	
880-18428-A-9-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Analysis Batch: 32815** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	8021B	32835
890-2801-2	PH01A	Total/NA	Solid	8021B	32835
890-2801-3	PH02	Total/NA	Solid	8021B	32835
890-2801-4	PH02A	Total/NA	Solid	8021B	32835
890-2801-5	PH03	Total/NA	Solid	8021B	32835
890-2801-6	PH03A	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	32835
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	5035	
890-2801-2	PH01A	Total/NA	Solid	5035	
890-2801-3	PH02	Total/NA	Solid	5035	
890-2801-4	PH02A	Total/NA	Solid	5035	
890-2801-5	PH03	Total/NA	Solid	5035	
890-2801-6	PH03A	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-7	PH04	Total/NA	Solid	8021B	32772
890-2801-8	PH04A	Total/NA	Solid	8021B	32772
MB 880-32772/5-A	Method Blank	Total/NA	Solid	8021B	32772
LCS 880-32772/1-A	Lab Control Sample	Total/NA	Solid	8021B	32772
LCSD 880-32772/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32772
880-18428-A-9-A MS	Matrix Spike	Total/NA	Solid	8021B	32772
880-18428-A-9-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32772

Analysis Batch: 32912

Lab S	Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2	2801-1	PH01	Total/NA	Solid	Total BTEX	
890-2	2801-2	PH01A	Total/NA	Solid	Total BTEX	
890-2	2801-3	PH02	Total/NA	Solid	Total BTEX	

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Released to Imaging: 12/2/2022 8:35:09 AM

Client: Ensolum Job ID: 890-2801-1
Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

**GC VOA (Continued)** 

#### **Analysis Batch: 32912 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-4	PH02A	Total/NA	Solid	Total BTEX	
890-2801-5	PH03	Total/NA	Solid	Total BTEX	
890-2801-6	PH03A	Total/NA	Solid	Total BTEX	
890-2801-7	PH04	Total/NA	Solid	Total BTEX	
890-2801-8	PH04A	Total/NA	Solid	Total BTEX	

#### **GC Semi VOA**

#### Analysis Batch: 32812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	8015B NM	32816
890-2801-2	PH01A	Total/NA	Solid	8015B NM	32816
890-2801-3	PH02	Total/NA	Solid	8015B NM	32816
890-2801-4	PH02A	Total/NA	Solid	8015B NM	32816
890-2801-5	PH03	Total/NA	Solid	8015B NM	32816
890-2801-6	PH03A	Total/NA	Solid	8015B NM	32816
890-2801-7	PH04	Total/NA	Solid	8015B NM	32816
890-2801-8	PH04A	Total/NA	Solid	8015B NM	32816
MB 880-32816/1-A	Method Blank	Total/NA	Solid	8015B NM	32816
LCS 880-32816/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32816
LCSD 880-32816/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32816
880-18436-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	32816
880-18436-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32816

#### Prep Batch: 32816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	8015NM Prep	
890-2801-2	PH01A	Total/NA	Solid	8015NM Prep	
890-2801-3	PH02	Total/NA	Solid	8015NM Prep	
890-2801-4	PH02A	Total/NA	Solid	8015NM Prep	
890-2801-5	PH03	Total/NA	Solid	8015NM Prep	
890-2801-6	PH03A	Total/NA	Solid	8015NM Prep	
890-2801-7	PH04	Total/NA	Solid	8015NM Prep	
890-2801-8	PH04A	Total/NA	Solid	8015NM Prep	
MB 880-32816/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32816/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32816/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-18436-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-18436-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 32877**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	8015 NM	
890-2801-2	PH01A	Total/NA	Solid	8015 NM	
890-2801-3	PH02	Total/NA	Solid	8015 NM	
890-2801-4	PH02A	Total/NA	Solid	8015 NM	
890-2801-5	PH03	Total/NA	Solid	8015 NM	
890-2801-6	PH03A	Total/NA	Solid	8015 NM	
890-2801-7	PH04	Total/NA	Solid	8015 NM	
890-2801-8	PH04A	Total/NA	Solid	8015 NM	

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Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION
Job ID: 890-2801-1
SDG: 03E1558084

#### **HPLC/IC**

#### Leach Batch: 32845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Soluble	Solid	DI Leach	
890-2801-2	PH01A	Soluble	Solid	DI Leach	
890-2801-3	PH02	Soluble	Solid	DI Leach	
890-2801-4	PH02A	Soluble	Solid	DI Leach	
890-2801-5	PH03	Soluble	Solid	DI Leach	
890-2801-6	PH03A	Soluble	Solid	DI Leach	
890-2801-7	PH04	Soluble	Solid	DI Leach	
890-2801-8	PH04A	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2801-4 MS	PH02A	Soluble	Solid	DI Leach	
890-2801-4 MSD	PH02A	Soluble	Solid	DI Leach	

#### **Analysis Batch: 32874**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Soluble	Solid	300.0	32845
890-2801-2	PH01A	Soluble	Solid	300.0	32845
890-2801-3	PH02	Soluble	Solid	300.0	32845
890-2801-4	PH02A	Soluble	Solid	300.0	32845
890-2801-5	PH03	Soluble	Solid	300.0	32845
890-2801-6	PH03A	Soluble	Solid	300.0	32845
890-2801-7	PH04	Soluble	Solid	300.0	32845
890-2801-8	PH04A	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2801-4 MS	PH02A	Soluble	Solid	300.0	32845
890-2801-4 MSD	PH02A	Soluble	Solid	300.0	32845

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Job ID: 890-2801-1

SDG: 03E1558084

**Client Sample ID: PH01** 

Lab Sample ID: 890-2801-1 Date Collected: 08/22/22 13:20

Matrix: Solid

Date Received: 08/23/22 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 20:33	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 15:21	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:58	SMC	EET MID

Client Sample ID: PH01A Lab Sample ID: 890-2801-2

Date Collected: 08/22/22 14:05 Date Received: 08/23/22 08:28 Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 20:59	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 15:43	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 23:06	SMC	EET MID

**Client Sample ID: PH02** Lab Sample ID: 890-2801-3 Date Collected: 08/22/22 13:25

Date Received: 08/23/22 08:28

**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			4.99 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 21:25	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 16:26	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 23:14	SMC	EET MID

Client Sample ID: PH02A Lab Sample ID: 890-2801-4

Date Collected: 08/22/22 14:15 Date Received: 08/23/22 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 21:52	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID

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**Matrix: Solid** 

Client: Ensolum Project/Site: CORRAL CANYON EXPANSION Job ID: 890-2801-1

SDG: 03E1558084

Client Sample ID: PH02A Date Collected: 08/22/22 14:15

Lab Sample ID: 890-2801-4 Matrix: Solid

Date Received: 08/23/22 08:28

	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			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 16:47	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 23:22	SMC	EET MID

**Client Sample ID: PH03** Lab Sample ID: 890-2801-5

Date Collected: 08/22/22 13:30 **Matrix: Solid** 

Date Received: 08/23/22 08:28

	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	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 22:18	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 17:09	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 23:45	SMC	EET MID

Client Sample ID: PH03A Lab Sample ID: 890-2801-6 Date Collected: 08/22/22 14:25 **Matrix: Solid** 

Date Received: 08/23/22 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 22:44	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 17:30	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 23:53	SMC	EET MID

Lab Sample ID: 890-2801-7 Client Sample ID: PH04

Date Collected: 08/22/22 13:35 Date Received: 08/23/22 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	32772	08/23/22 10:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32836	08/24/22 20:53	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.03 g	10 mL	32816 32812	08/24/22 08:38 08/24/22 17:51	DM SM	EET MID EET MID

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**Matrix: Solid** 

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1 EXPANSION SDG: 03E1558084

Client Sample ID: PH04 Lab Sample ID: 890-2801-7

Date Collected: 08/22/22 13:35
Date Received: 08/23/22 08:28
Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/25/22 00:17	SMC	EET MID

Client Sample ID: PH04A Lab Sample ID: 890-2801-8

Date Collected: 08/22/22 14:35 Matrix: Solid

Date Received: 08/23/22 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32772	08/23/22 10:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32836	08/24/22 21:14	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 18:13	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		5			32874	08/25/22 00:25	SMC	EET MID

Laboratory References:

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

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# **Accreditation/Certification Summary**

Client: Ensolum Job ID: 890-2801-1
Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

# **Laboratory: Eurofins Midland**

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

Authority		ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, bu	ıt the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes fo
the agency does not of	fer certification.	•	, , ,	.,c.aac aa., .ee
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	., molado analytoo
0 ,		Matrix Solid	Analyte Total TPH	

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# **Method Summary**

Client: Ensolum

Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1

SDG: 03E1558084

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orv				

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

### **Protocol References:**

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

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

# **Sample Summary**

Client: Ensolum

Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1

SDG: 03E1558084

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2801-1	PH01	Solid	08/22/22 13:20	08/23/22 08:28	0.5'
890-2801-2	PH01A	Solid	08/22/22 14:05	08/23/22 08:28	2'
890-2801-3	PH02	Solid	08/22/22 13:25	08/23/22 08:28	0.5'
890-2801-4	PH02A	Solid	08/22/22 14:15	08/23/22 08:28	2'
890-2801-5	PH03	Solid	08/22/22 13:30	08/23/22 08:28	0.5'
890-2801-6	PH03A	Solid	08/22/22 14:25	08/23/22 08:28	2'
890-2801-7	PH04	Solid	08/22/22 13:35	08/23/22 08:28	0.5'
890-2801-8	PH04A	Solid	08/22/22 14:35	08/23/22 08:28	2'

Relinquished by: (8tgnature)

M

BCX EC. C. E. &

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date 08/25/2020 Rev 2020 2

Received by: (Signature)

# **Environment Testing**

🛟 eurofins

Phone:

City, State ZIP:

ddress:

Company Name: Project Manager:

Project Location:

Project Number: Project Name:

Sampler's Name:

Cooler Custody Seals: Samples Received Intact: SAMPLE RECEIPT

# Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, L Hobbs, NM (575) 392-7550, Ca

Hobbs, NM (57	75) 392-7	550, Carl	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199		_
				www.xence	o.com Page ( of (
	Garret Gr	reen		Work C	
	KTO Ene	Ygy		Program: UST/PST   PRP	Brownfleids 🗌 RRC 🔲 Superfund 🗎
	3104 E. C	Green S		State of Project:	
	Carlsbad	. NM 88	)	Reporting: Level II  Level III  PST/UST  TRRP	PST/UST   TRRP   Level IV
een@Exxon	Mobil.c	mo.		Deliverables: EDD	ADaPT Other:
			ANALYSIS REC	QUEST	Preservative Codes
Pres.					None: NO DI Water: H <sub>2</sub> O
					Cool: Cool MeOH: Me
id by					HCL: HC HNO <sub>3</sub> : HN
					H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub> NaOH: Na
o nete	.0)				H₃PO₄; HP
	300				NaHSO4: NABIS
	PA:				Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>
<u></u>		_		_	Zn Acetate+NaOH: Zn
7					NaOH+Ascorbic Acid: SAPC
Grab/ # of Comp Cont		-			Sample Comments
	×	×			Incident ID:
	×	×			nAPP2215951900
	×	×			Cost Center:
	×	×			1056571001
	×	×			AFE:
	×	×			
	×	×			
	×	×			
10		-			
-	-	+			
Texas 11 Al St	b As B	Sa Be		No Ni K Se A	Ag SIO2 Na ST TH-SO U V Zn
TCLP / SPLP 6010: 8RCRA S	Sb As I	Ba Be	d Cr Co Cu Pb Mn Mo	Ni Se Ag TI U Hg:	Hg: 1631 / 245.1 / 7470 / 7471
er from client cou	mpany to	Eurofins	co, its affiliates and subcontractors	. It assigns standard terms and conditions	ions
mpany N dress: y, State a arret Great Grea	Bill to: (if different)  Company Name: Address: City, State ZIP: Email: Garret Green@Exxor Turn Around Pres. Que Date: 24hr TAT TAT starts the day received by 4:30pm Wet Ice: 763 No ID: 774 N. 1074 Wet Ice: 5- 6 Time Sampled Depth Grab/ # of Sampled Depth Comp Cont 13:20 0.5' 14:15 2' 13:35 0.5' 14:35 2'	Name: Carriet G. Name: XTO Ene St. Sabb As B. S. S. S. As B. S.	Manager:   Tacorna Montissey	Name: XTO Energy  3104 E. Green St.  ZIP: Carlsbad, NM 88220  een@ExxonMobil.com  AT Code  Pres. Code  Pres. Code  Pres. Code  Parameters  Opm  Parameters  Opm  Parameters  Opm  Parameters  Opm  Parameters  ANALYSIS REC  ANALY	Containing   Co

# **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2801-1 SDG Number: 03E1558084

Login Number: 2801 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	
ls 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: 890-2801-1 SDG Number: 03E1558084

Login Number: 2801 **List Source: Eurofins Midland** List Number: 2 List Creation: 08/24/22 10:58 AM

Creator: Rodriguez, Leticia

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

<6mm (1/4").

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Released to Imaging: 12/2/2022 8:35:09 AM

**Environment Testing America** 

# **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-2805-1

Laboratory Sample Delivery Group: 03E1558084 Client Project/Site: Corral Canyon Expansion

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

Authorized for release by: 8/25/2022 2:44:32 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: Corral Canyon Expansion

Laboratory Job ID: 890-2805-1 SDG: 03E1558084

# **Table of Contents**

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# **Definitions/Glossary**

Job ID: 890-2805-1 Client: Ensolum Project/Site: Corral Canyon Expansion

SDG: 03E1558084

### **Qualifiers**

### **GC VOA**

Qualifier **Qualifier Description** 

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** 

U Indicates the analyte was analyzed for but not detected.

# **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
0.51	

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

Decision Level Concentration (Radiochemistry) DLC

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

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

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

Not Calculated NC

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

NEG Negative / Absent POS Positive / Present

**PQL** Practical Quantitation Limit

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

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

**TNTC** Too Numerous To Count

### **Case Narrative**

Client: Ensolum Job ID: 890-2805-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

Job ID: 890-2805-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2805-1

### Receipt

The sample was received on 8/23/2022 8:28 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

### **GC VOA**

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

### GC Semi VOA

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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Eurofins Carlsbad 8/25/2022

# **Client Sample Results**

Client: Ensolum Job ID: 890-2805-1 Project/Site: Corral Canyon Expansion SDG: 03E1558084

**Client Sample ID: SS01** Lab Sample ID: 890-2805-1

Matrix: Solid

Date Collected: 08/22/22 13:40 Date Received: 08/23/22 08:28

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 15:41	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 15:41	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 15:41	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/24/22 10:24	08/24/22 15:41	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 15:41	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/24/22 10:24	08/24/22 15:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			08/24/22 10:24	08/24/22 15:41	1
1,4-Difluorobenzene (Surr)	104		70 - 130			08/24/22 10:24	08/24/22 15:41	1
Method: Total BTEX - Total BTE	( Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/24/22 16:56	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/25/22 09:31	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	• • •	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/24/22 08:40	08/24/22 17:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/24/22 08:40	08/24/22 17:51	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/24/22 08:40	08/24/22 17:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			08/24/22 08:40	08/24/22 17:51	1
o-Terphenyl	98		70 - 130			08/24/22 08:40	08/24/22 17:51	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.9		5.00	mg/Kg			08/25/22 00:56	1

# **Surrogate Summary**

Client: Ensolum Job ID: 890-2805-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

-				Percent Surrogate I
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2802-A-1-A MS	Matrix Spike	110	103	
890-2802-A-1-B MSD	Matrix Spike Duplicate	109	98	
890-2805-1	SS01	112	104	
LCS 880-32835/1-A	Lab Control Sample	100	101	
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107	
MB 880-32835/5-A	Method Blank	80	88	
Surrogate Legend				
BFB = 4-Bromofluorobenze	ene (Surr)			
DFBZ = 1,4-Difluorobenze	ne (Surr)			

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		1001	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-2794-A-1-C MS	Matrix Spike	101	94	
90-2794-A-1-D MSD	Matrix Spike Duplicate	87	83	
90-2805-1	SS01	91	98	
CS 880-32817/2-A	Lab Control Sample	81	97	
CSD 880-32817/3-A	Lab Control Sample Dup	78	94	
1B 880-32817/1-A	Method Blank	95	102	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2805-1 SDG: 03E1558084 Project/Site: Corral Canyon Expansion

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32835/5-A

**Matrix: Solid** Analysis Batch: 32815 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32835

	МВ	мв						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	1

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	-	08/24/22 10:24	08/24/22 13:56	1
1,4-Difluorobenzene (Surr)	88		70 - 130		08/24/22 10:24	08/24/22 13:56	1

Lab Sample ID: LCS 880-32835/1-A

Matrix: Solid

Analysis Batch: 32815

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 32835

ı		Opike	LUG	LUG				/orcec	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Benzene	0.100	0.09463	-	mg/Kg		95	70 - 130	
	Toluene	0.100	0.09936		mg/Kg		99	70 - 130	
	Ethylbenzene	0.100	0.09277		mg/Kg		93	70 - 130	
	m-Xylene & p-Xylene	0.200	0.1944		mg/Kg		97	70 - 130	
	o-Xylene	0.100	0.1080		mg/Kg		108	70 - 130	
ı									

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	100	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

Lab Sample ID: LCSD 880-32835/2-A

**Matrix: Solid** 

Analysis Batch: 32815

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

Prep Type: Total/NA

Prep Batch: 32835

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1047		mg/Kg		105	70 - 130	10	35	
Toluene	0.100	0.1049		mg/Kg		105	70 - 130	5	35	
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130	11	35	
m-Xylene & p-Xylene	0.200	0.2127		mg/Kg		106	70 - 130	9	35	
o-Xylene	0.100	0.1178		mg/Kg		118	70 - 130	9	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1.4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-2802-A-1-A MS

**Matrix: Solid** 

Analysis Batch: 32815

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 32835

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.09061		mg/Kg		90	70 - 130	
Toluene	< 0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130	

Project/Site: Corral Canyon Expansion

Client: Ensolum

Job ID: 890-2805-1

SDG: 03E1558084

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

Lab Sample ID: 890-2802-A-1-A MS

Lab Sample ID: 890-2802-A-1-B MSD

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 32815

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 32835

	Sample	Sample	<b>Бріке</b>	IVIS	IVIS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130	
o-Xylene	<0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	110	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 32835

RPD

**Analysis Batch: 32815** Sample Sample Spike MSD MSD Result Qualifier Added RPD Limit Analyte Result Qualifier %Rec Limits Unit Benzene <0.00201 U 0.0990 0.08856 mg/Kg 89 70 - 130 2 35 Toluene <0.00201 U 0.0990 0.09614 mg/Kg 97 70 - 130 4 35 Ethylbenzene <0.00201 U 0.0990 0.09122 92 70 - 130 35 mg/Kg 3 0.198 0.1855 35 m-Xylene & p-Xylene <0.00402 U mg/Kg 94 70 - 130 <0.00201 U 0.0990 0.1006 70 - 130 o-Xylene mg/Kg 102

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-32817/1-A

**Matrix: Solid** 

Analysis Batch: 32810

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32817

MB MB Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte 50.0 08/24/22 08:40 08/24/22 10:43 <50.0 U Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 08/24/22 08:40 08/24/22 10:43 mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 08/24/22 08:40 08/24/22 10:43 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	08/24/22 08:40	08/24/22 10:43	1
o-Terphenyl	102		70 - 130	08/24/22 08:40	08/24/22 10:43	1

Lab Sample ID: LCS 880-32817/2-A **Matrix: Solid** 

Analysis Batch: 32810

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

Prep Batch: 32817

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	979.2	-	mg/Kg		98	70 - 130	 
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	786.3		mg/Kg		79	70 - 130	
C10-C28)								

Prep Batch: 32817

Prep Type: Total/NA

Prep Batch: 32817

Job ID: 890-2805-1

Client: Ensolum Project/Site: Corral Canyon Expansion SDG: 03E1558084

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

97

Lab Sample ID: LCS 880-32817/2-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Solid** 

Analysis Batch: 32810

LCS LCS %Recovery Qualifier Limits 81 70 - 130

Lab Sample ID: LCSD 880-32817/3-A Client Sample ID: Lab Control Sample Dup

70 - 130

Matrix: Solid

Surrogate

o-Terphenyl

C10-C28)

1-Chlorooctane

Analysis Batch: 32810							Prep	Batch:	32817
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	930.0		mg/Kg		93	70 - 130	5	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	765.3		mg/Kg		77	70 - 130	3	20

LCSD LCSD Surrogate %Recovery Qualifier Limits 78 70 - 130 1-Chlorooctane o-Terphenyl 70 - 130 94

Lab Sample ID: 890-2794-A-1-C MS Client Sample ID: Matrix Spike Prep Type: Total/NA

**Matrix: Solid** 

**Analysis Batch: 32810** 

	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	1138		mg/Kg		114	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	999	853.2		mg/Kg		85	70 - 130	

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 101 o-Terphenyl 94 70 - 130

Lab Sample ID: 890-2794-A-1-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 32810** 

Analysis Batch: 32810									Prep	Batch:	32817
	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	956.7		mg/Kg		96	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	760.2		mg/Kg		76	70 - 130	12	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	83		70 - 130

Project/Site: Corral Canyon Expansion

Lab Sample ID: MB 880-32845/1-A

Lab Sample ID: LCS 880-32845/2-A

Lab Sample ID: LCSD 880-32845/3-A

Lab Sample ID: 890-2801-A-4-D MS

Lab Sample ID: 890-2801-A-4-E MSD

**Matrix: Solid** 

**Matrix: Solid** 

**Matrix: Solid** 

**Matrix: Solid** 

**Matrix: Solid** 

Analyte

Chloride

Analyte

Chloride

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Chloride

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Chloride

Analysis Batch: 32874

**Analysis Batch: 32874** 

Analysis Batch: 32874

Analysis Batch: 32874

Analysis Batch: 32874

Method: 300.0 - Anions, Ion Chromatography

RL

5.00

Spike

Added

250

Spike

Added

250

Spike

Added

Spike

Added

252

252

Unit

LCS LCS

LCSD LCSD

MS MS

MSD MSD

Qualifier

Qualifier

Qualifier

Qualifier

Result

234.1

Result

234.4

Result

297.5

Result

297.4

mg/Kg

Unit

Unit

Unit

mg/Kg

Unit

mg/Kg

mg/Kg

mg/Kg

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D

Prepared

%Rec

%Rec

%Rec

%Rec

100

100

94

Client: Ensolum

MB MB

<5.00 U

Sample Sample

Sample Sample

Result

44.8

Qualifier

Qualifier

Result

44.8

Result Qualifier

Job ID: 890-2805-1 SDG: 03E1558084

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

RPD

**Prep Type: Soluble** 

**Prep Type: Soluble** 

RPD

0

Client Sample ID: Method Blank

Analyzed

08/24/22 21:08

Client Sample ID: Lab Control Sample

%Rec

Limits

90 - 110

%Rec

Limits

90 - 110

%Rec

Limits

90 - 110

Client Sample ID: Matrix Spike Duplicate

%Rec

Limits

90 - 110

Client Sample ID: Matrix Spike

Client Sample ID: Lab Control Sample Dup

Dil Fac

RPD

Limit

RPD

Limit

20

Page 10 of 19

# **QC Association Summary**

Client: Ensolum Job ID: 890-2805-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

**GC VOA** 

Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	32835
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Analysis Batch: 32868** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	Total BTEX	

**GC Semi VOA** 

Analysis Batch: 32810

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Lab Sample ID	Client Sample ID	Prep Type	Matrix Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	8015B NM	32817
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015B NM	32817
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32817
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32817
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32817
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32817

Prep Batch: 32817

<b>Lab Sample ID</b> 890-2805-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32845

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

**Eurofins Carlsbad** 

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# **QC Association Summary**

Client: EnsolumJob ID: 890-2805-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

# **HPLC/IC** (Continued)

# Leach Batch: 32845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

### **Analysis Batch: 32874**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	300.0	32845
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32845

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# Lab Chronicle

Client: EnsolumJob ID: 890-2805-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

**Client Sample ID: SS01** 

Lab Sample ID: 890-2805-1

Matrix: Solid

Date Collected: 08/22/22 13:40 Date Received: 08/23/22 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 15:41	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32868	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32904	08/25/22 09:31	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32817	08/24/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1			32810	08/24/22 17:51	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/25/22 00:56	SMC	EET MID

### Laboratory References:

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

**Eurofins Carlsbad** 

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# **Accreditation/Certification Summary**

Client: EnsolumJob ID: 890-2805-1Project/Site: Corral Canyon ExpansionSDG: 03E1558084

## **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	<b>Expiration Date</b>				
Texas		NELAP T104704400-22-24 06-30-2						
The following analytes	are included in this report, bu	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes for				
the agency does not of	fer certification.	•	, , ,	·, ·····				
the agency does not of Analysis Method	fer certification .  Prep Method	Matrix	Analyte	,				
0 ,		Matrix Solid	, , ,					

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# **Method Summary**

Client: Ensolum Job ID: 890-2805-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

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

### **Protocol References:**

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

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

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# **Sample Summary**

Client: Ensolum

Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1

SDG: 03E1558084

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2805-1	SS01	Solid	08/22/22 13:40	08/23/22 08:28	0.5

# Chain of Custody

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

Work Order No:

**Environment Testing** 

Oi	3	, wind	Relinquisped by: (Signature)	Notice: Signature of this doct of service, Eurofins Xenco w of Eurofins Xenco. A minimu	Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010						1	SS01	Sample Identification	Total Containers:	Sample Custody Seals:	Cooler Custody Seals:	Samples Received Intact:	SAMPLE RECEIPT	PO#:	Sampler's Name:	Project Location:	Project Number:	Project Name:	Phone: 30	City, State ZIP: Ca	Address: 31	Company Name: En	Project Manager: Ta
		h	ignature)	ment and relinquishment of III be liable only for the cost m charge of \$85.00 will be ap	Vietal(s) to be analyze	200.8 / 6020:							S 8	Matrix		Yes No N/A	Yes No NIA C	(Ye) No	Jemp Blank:		Kase Parker	32.15372, -103.99931	03E1558084	Corral Canyon Expansion	303-887-2946	Carlsbad, NM 88220	3122 National Parks Hwy	Ensolum	Tacoma Morrissey
•		The Chap	Received by: (Sig	samples constitutes a val of samples and shall not a oplied to each project and	ed TCLP /	8RCRA 1							8/22/2022 13:40	Date Time Sampled Sampled	Corrected Temperature:	Temperature Reading:	No SN/A Correction Factor:	Thermometer ID:	Yes No Wet Ice:	the lab, if		931 Due Date:	☐ Routine		Ema		Ŋ		
		σħ	(Signature)	ld purchase order from clic ssume any responsibility f a charge of \$5 for each sar	SPLP 6010: 8RCR	13PPM Texas 11 /							0.5	Depth Grab/	5.6	-	ш	100-m/m	(Yes) No		TAT starts the day received by	24hr TAT	☑ Rush	Turn Around	Email:  Garret.Green@ExxonMobil.com	City, State ZIP:	Address:	Company Name:	Bill to: (if different)
		33.22 625	Date/Time	ent company to Eurofins Xe for any losses or expenses mple submitted to Eurofins	A Sb As Ba Be C	Al Sb As Ba Be B			j	8			× ×	CHLOF TPH (8	015)				.0)	rs			Pres. Code		xxonMobil.com	Carlsbad, NM 88220	3104 E. Green St.	XTO Energy	Garret Green
6	4	2	Relinquished by: (Signature)	enco, its affiliates and subcontractors. Incurred by the client if such losses an Xenco, but not analyzed. These terms	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo N	~											890-2805 Chain of Custody							ANALYSIS REQUEST		20			
			re) Received by: (Signature)	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	Ni Se Ag TI U Hg: 1	Mg Mn Mo Ni K Se Ag SiO <sub>2</sub>											Custody				-			NEST	Deliverables: EDD   /	Reporting: Level II  Level III  PST/UST  TRRP	State of Project:	Program: UST/PST   PRP	Work O
Revised Date: 08/25/2020 Rev. 2020 2			gnature) Date/Time	ns Irrol tiated.	Hg: 1631 / 245.1 / 7470 / 7471	O2 Na Sr TI Sn U V Zn			AFE:	1056571001	Cost Center:	nAPP2215951900	Incident ID:	Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	NaHSO <sub>4</sub> : NABIS	H₃PO₄: HP	H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub> NaOH: Na	HCL: HC HNO3: HN	Cool: Cool MeOH: Me	None: NO DI Water: H <sub>2</sub> O	Preservative Codes	ADaPT Other:	☐ PST/UST ☐ TRRP ☐ Level IV ☐		Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund [	Work Order Comments

# **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2805-1 SDG Number: 03E1558084

Login Number: 2805 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: 890-2805-1 SDG Number: 03E1558084

> List Source: Eurofins Midland List Creation: 08/24/22 10:58 AM

Login Number: 2805 List Number: 2

<6mm (1/4").

Creator: Rodriguez, Leticia

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

Eurofins Carlsbad

Released to Imaging: 12/2/2022 8:35:09 AM

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APPENDIX E

**NMOCD Notifications** 

# Collins, Melanie

Green, Garrett J From:

Sent: Thursday, June 2, 2022 6:47 PM

To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD DelawareSpills /SM; McSpadden, Wes; Allen, Michael; Pennington, Shelby G Cc:

**Subject:** XTO 24 Hour Notification - Corral Canyon Expansion Battery - Released on 6/2/22

All,

This is notification of a flare fire that occurred today at the Corral Canyon Expansion Battery near the GPS coordinates given below. Details will be provided with a form C-141. Please contact us with any questions or concerns.

GPS: 32.15372,-103.99930

Thank you,

### **Garrett Green**

**Environmental Coordinator Delaware Business Unit** (575) 200-0729 Garrett.Green@ExxonMobil.com

XTO Energy, Inc.

3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729

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

To: <a href="mailto:ocd.enviro@state.nm.us">ocd.enviro@state.nm.us</a>; <a href="mailto:mike.bratcher@state.nm.us">mike.bratcher@state.nm.us</a>; <a href="mailto:Hamlet, Robert, EMNRD">Hamlet, Robert, EMNRD</a>

Cc: <u>DelawareSpills /SM; Tacoma Morrissey</u>

Subject: XTO - Sampling Notification (Week of 8/15/22 - 8/19/22)

**Date:** Friday, August 12, 2022 1:13:53 PM

# [ \*\*EXTERNAL EMAIL\*\*]

All,

XTO plans to complete final sampling activities at the following sites the week of August 15, 2022.

### Monday

- Corral Canyon Expansion/ NAPP2215951900
- JRU 10 / NAB1904653072& NAB1535754357

### Tuesday

Corral Canyon Expansion/ NAPP2215951900

### Wednesday

Corral Canyon Expansion/ NAPP2215951900

### Thursday

- BEU 160 Battery/ NAPP2215848746

Thank you,

### **Garrett Green**

Environmental Coordinator Delaware Business Unit (575) 200-0729

Garrett.Green@ExxonMobil.com

### XTO Energy, Inc.

3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729

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 139870

### **CONDITIONS**

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	139870
	Action Type:
	[C-141] Release Corrective Action (C-141)

### CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2215951900 CORRAL CANYON EXPANSION BATTERY, thank you. This closure is approved.	12/2/2022