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Incident ID	NAPP2223831434
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.

A scaled site and sampling diagram as described in 19.15.29.11 NMAC
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
Description of remediation activities
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name: _Garrett Green Title: _Environmental Coordinator Date:11/03/2022 Date:11/03/2022 Date: Date: Date: Date: Date:
email:garrett.green@exxonmobil.com Telephone:575-200-0729
OCD Only Jocelyn Harimon Received by: Date:
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.
Closure Approved by: Robert Hamlet Date: 2/3/2023
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	NAPP2223831434
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

					OGRID 5380		
		Contact Te	Contact Telephone 575-200-0729				
Contact ema	il garrett.gre	en@exxonmobil.c	om	Incident #	(assigned by OCD)		
Contact mail	ing address	3104 E. Greene St	reet, Carlsbad, Ne	ew Mexico, 88220			
		_	_				
			Location	of Release So	ource		
Latitude 32.	14550°			Longitude -	-103.96290°		
Latitude			(NAD 83 in de	cimal degrees to 5 decim	nal places)		
Site Name				Site Type	Central Delivery Point		
Site Name Ell				API# (if appl			
Date Release	Discovered	08/13/2022		AP1# (if appl	incapie)		
Unit Letter	Section	Township	Range	Coun	uty		
	11	25S	29E	Eddy	·		
		20.0			<u>, </u>		
Surface Owne	r: 🗷 State	☐ Federal ☐ Tr	ribal 🔲 Private (A	Name:)		
			Natura and	d Volume of F	Dalaga		
			Nature and	i volume of r	Xelease		
				calculations or specific	justification for the volumes provided below)		
Crude Oi		Volume Release	d (bbls)		Volume Recovered (bbls)		
Produced	Water	Volume Release	d (bbls)		Volume Recovered (bbls)		
Is the concentration of total dissolved solids (TDS)			☐ Yes ☐ No				
Condensa	in the produced water >10,000 mg/l? Condensate Volume Released (bbls)		3/1:	Volume Recovered (bbls)			
☐ Natural C	ias	Volume Release	ed (Mcf)		Volume Recovered (Mcf)		
X Other (de	scribe)	Volume/Weight	Released (provide	e units)	Volume/Weight Recovered (provide units)		
Lube oil		5.11 BBLS			5.00 BBLS		
Cause of Rel	ease Compre	essor skid numn tii	mer malfunctione	d allowing fluids to	o overflow tank into containment and onto pad. All		
	contain	ed fluids were reco	overed. A third-p	arty contractor has b	been retained for remediation purposes.		
			_				
1							

Received by OCD: 11/10/2022 1:37:42 PM Form C-141 State of New Mexico Page 2 Oil Conservation Division

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Incident ID	NAPP2223831434
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Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the respon	nsible party consider this a major release?
release as defined by	N/A	
19.15.29.7(A) NMAC?		
☐ Yes 🗷 No		
If YES, was immediate n	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
N/A		
	Initial R	esponse
The responsible	party must undertake the following actions immediatel	v unless they could create a safety hazard that would result in injury
T.10 1 40 p 0 111 10 10 1	, and the same transfer of the	,
➤ The source of the rele	ease has been stopped.	
The impacted area ha	s been secured to protect human health and	the environment.
Released materials ha	ave been contained via the use of berms or o	ikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed an	d managed appropriately.
If all the actions describe	d above have <u>not</u> been undertaken, explain	why:
NA		
		emediation immediately after discovery of a release. If remediation
		efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.
		pest of my knowledge and understand that pursuant to OCD rules and
		fications and perform corrective actions for releases which may endanger
		CD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In
addition, OCD acceptance o	f a C-141 report does not relieve the operator of	responsibility for compliance with any other federal, state, or local laws
and/or regulations.		
Printed Name: Garrett G		Title: SSHE Coordinator
Signature:	A Sun	Date:
email: garrett.green@exx		Telephone: 575-200-0729
Cinan.		retephone.
OCD Only		
Received by:		Date:

Location:	Elk Wallow CDP		
Spill Date:	8/13/2022		
	Area 1		
Approximate A	rea =	28.07	cu.ft.
	VOLUME OF LEAK	•	
Total Lube Oil =	=	5.00	bbls
Total Produced	Water =	0.00	bbls
	Area 2		
Approximate A	rea =	967.75	sq. ft.
Average Satura	tion (or depth) of spill =	0.25	inches
Average Porosi	ty Factor =	0.03	
	VOLUME OF LEAK		
Total Lube Oil =	:	0.11	bbls
Total Produced	Water =	0.00	bbls

TOTAL VOLUME OF LEA	K		
Total Lube Oil =	5.11 bbls		
Total Produced Water =	0.00 bbls		
TOTAL VOLUME RECOVERED			
Total Lube Oil =	5.00 bbls		
Total Produced Water =	0.00 bbls		

e of New Mexico

Incident ID	NAPP2223831434
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ⊠ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No
Are the lateral extents of the release overlying a subsurface mine?	☐ 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 not 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 ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
Characterization Report Checklist: Each of the following items must be included in the report.	
 Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well Field data □ Data table of soil contaminant concentration data □ Depth to water determination □ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release □ Boring or excavation logs □ Photographs including date and GIS information 	ls.

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.

Topographic/Aerial maps

☐ Laboratory data including chain of custody

Received by OCD: 11/10/2022 1:37:42 PM Form C-141 State of New Mexico Oil Conservation Division Page 4

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)	NAPP2223831434	

Incident ID	NAPP2223831434
District RP	
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 repailed to adequately investigate and remediate contamination that	nplete to the best of my knowledge and understand that pursuant to OCD rules and a 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 at pose a threat to groundwater, surface water, human health or the environment. In e operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: _Garrett Green	Title: _Environmental Coordinator
Signature: Sath Sur	Date:11/03/2022
email: _garrett.green@exxonmobil.com	Telephone:575-200-0729
OCD Only	
Received by: <u>Jocelyn Harimon</u>	Date:11/10/2022

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Incident ID	NAPP2223831434
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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 ite	ems must be included in the closure report.						
A scaled site and sampling diagram as described in 19.15.29.11 NMAC							
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)							
☐ Laboratory analyses of final sampling (Note: appropriate ODC	District office must be notified 2 days prior to final sampling)						
Description of remediation activities							
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of a should their operations have failed to adequately investigate and rem human health or the environment. In addition, OCD acceptance of a compliance with any other federal, state, or local laws and/or regulat restore, reclaim, and re-vegetate the impacted surface area to the con accordance with 19.15.29.13 NMAC including notification to the OC Printed Name: _Garrett Green	rediate contamination that pose a threat to groundwater, surface water, C-141 report does not relieve the operator of responsibility for ions. The responsible party acknowledges they must substantially ditions that existed prior to the release or their final land use in						
OCD Only							
Jocelyn Harimon Received by:	11/10/2022 Date:						
	of liability should their operations have failed to adequately investigate and vater, human health, or the environment nor does not relieve the responsible or regulations.						
Closure Approved by:	Date:						
Printed Name:	Title:						



November 9, 2022

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

Re: Closure Request Elk Wallow CDP

Incident Number NAPP2223831434

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, excavation, and soil sampling activities at the Elk Wallow CDP (Site). The purpose of the site assessment and soil sampling activities was to address impacts to soil following a release of lubrication oil at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, XTO is submitting this Closure Request, describing remediation that has occurred and requesting closure for Incident Number NAPP2223831434.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit E, Section 11, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.14550°N, 103.96290°W) and is associated with oil and gas exploration and production operations on New Mexico State land.

On, August 13, 2022, a compressor skid pump timer malfunctioned resulting in the release of 5.11 barrels (bbls) of lubrication oil into containment and onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 5 bbls of lubrication oil were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on August 25, 2022. The release was assigned Incident Number NAPP2223831434.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico OSE well named C-4525, located approximately 0.6 miles northwest of the Site. The groundwater well has a reported depth to groundwater of 110 feet bgs and a total depth of 110 feet bgs. Ground surface elevation at the groundwater well location is 3,025 feet above mean

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 3122 National Parks Highway | Carlsbad, New Mexico 88220 | ensolum.com

XTO Energy, Inc Closure Request Elk Wallow CDP

sea level (amsl), which is approximately 60 feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an unnamed dry wash, located approximately 1,269 feet south of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

SITE ASSESSMENT ACTIVITIES

On October 6, 2022, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Six assessment soil samples (SS01 through SS06) were collected within and around the release extent from a depth of approximately 0.5 feet bgs to assess for the presence or absence of impacted soil. The soil samples were field screened for volatile aromatic hydrocarbons (VOCs) and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. 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 is included in Appendix B.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following contaminants of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for soil samples SS03 through SS06 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and the strictest Table I Closure Criteria. Laboratory analytical results for soil sample SS01 and SS02 indicated TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the assessment soil samples, delineation and excavation activities were warranted.

XTO Energy, Inc Closure Request Elk Wallow CDP

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

A 48-hour advance notice of liner inspection was provided via email to the NMOCD. A liner integrity inspection was conducted following fluid recovery. Upon inspection, the liner was determined to be competent. No tears or deficiencies were observed. The containment was holding a small amount of rainwater due to the weather the night before. Photographic documentation is included in Appendix B.

On October 24, 2022, Ensolum personnel were at the Site to oversee delineation and excavation activities in the release extent outside of the containment. Two potholes (PH01 and PH02) were advanced via backhoe within the release extent to a maximum depth of 4 feet bgs respectivly. Delineation soil samples were collected from each pothole at 1 foot bgs and 4 feet bgs from the vicinity of samples SS01 and SS02. Soil was field screened for VOCs and chloride as described above. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix C. The soil sample locations are depicted on Figure 2.

Impacted soil was excavated from the release area as indicated by visible staining, field screening activities, and laboratory analytical results for the delineation soil samples. To direct excavation activities, Ensolum personnel screened soil for VOCs and chloride. Excavation activities were performed using a backhoe and transport vehicle.

Following removal of impacted soil, Ensolum personnel collected 5-point composite soil samples representing 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS03 were collected from the floor of the excavation at a depth of 3 feet bgs. Two composite sidewall samples (SW01 and SW02) were collected from the sidewalls of the excavation at depths ranging from the ground surface to 3 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

The final excavation extent measured approximately 600 square feet. A total of approximately 85 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Carlsbad, New Mexico. In order to provide safe access to the active production equipment onsite, the excavation was backfilled following receipt the final laboratory analytical reports. The excavation was backfilled with material procured locally and photographic documentation of the backfill is included in Appendix B.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for delineation pothole soil samples PH01/PH01A and PH02/PH02A indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and compliant with the most stringent Table I Closure Criteria.

Laboratory analytical results for the excavation floor soil samples FS01 through FS03 and sidewall samples SW01 and SW02, collected from the final excavation extent, indicated all COCs were compliant with the Closure Criteria. In addition, laboratory analytical results for the lateral samples, SS03 through SS06, sidewall samples, SW01 and SW02, and the terminal delineation samples PH01A and PH02A collected at 4 feet bgs indicate all COCs were compliant with the strictest Table I Closure Criteria, providing vertical and lateral delineation to the strictest Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

ENSOLUM

XTO Energy, Inc Closure Request Elk Wallow CDP

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the August 13, 2022, release of lubrication oil into containment and onto the pad. A liner inspection determined the liner was operating as designed. For the impacted area of the well pad outside of containment, soil was excavated and laboratory analytical results for the confirmation soil samples indicated all COCs were compliant with the Site Closure Criteria. Additionally, the release is vertically and laterally delineated to the strictest Table I Closure Criteria. Based on the soil sample analytical results, no further remediation was required. XTO has backfilled the excavation with locally procured material to provide safe access to active production equipment.

Excavation of impacted soil has mitigated impacts at this Site. Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number NAPP2223831434.

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

Sincerely, **Ensolum, LLC**

Kalei Jennings Senior Scientist

Kalui Jennings

Ashley L. Ager, M.S., P.G. Program Director

ashley L. ager

cc: Garrett Green, XTO

Shelby Pennington, XTO

New Mexico State Land Office

Appendices:

Figure 1 Site Receptor Map

Figure 2 Delineation Soil Sample Locations
Figure 3 Excavation Soil Sample Locations
Table 1 Soil Sample Analytical Results
Appendix A Referenced Well Records

Appendix B Photographic Log

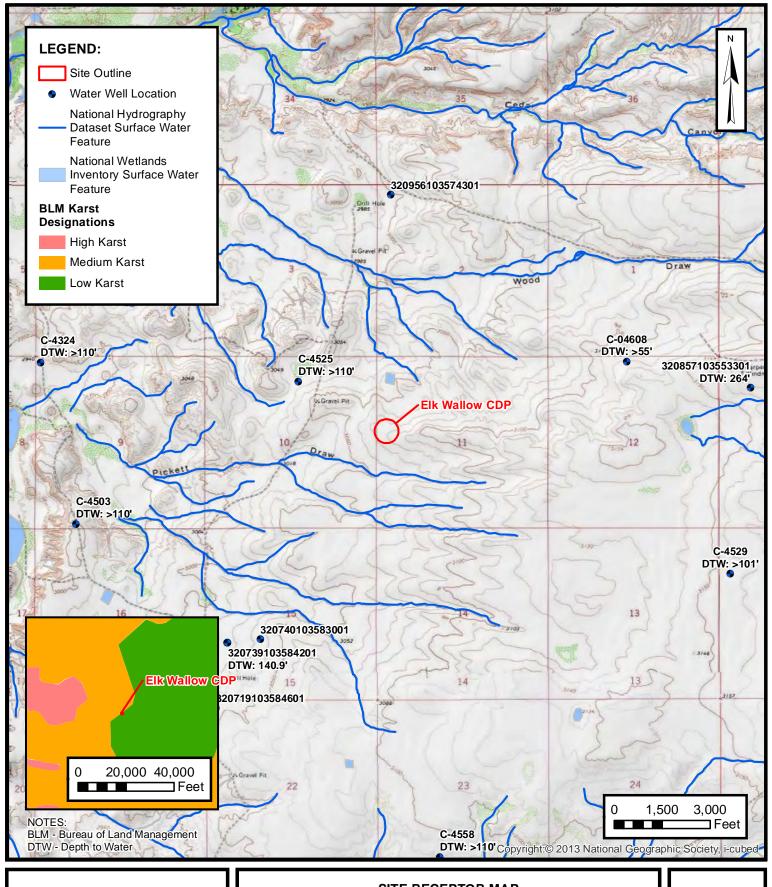
Appendix C Lithologic / Soil Sampling Logs

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

Appendix E NMOCD Notifications



FIGURES





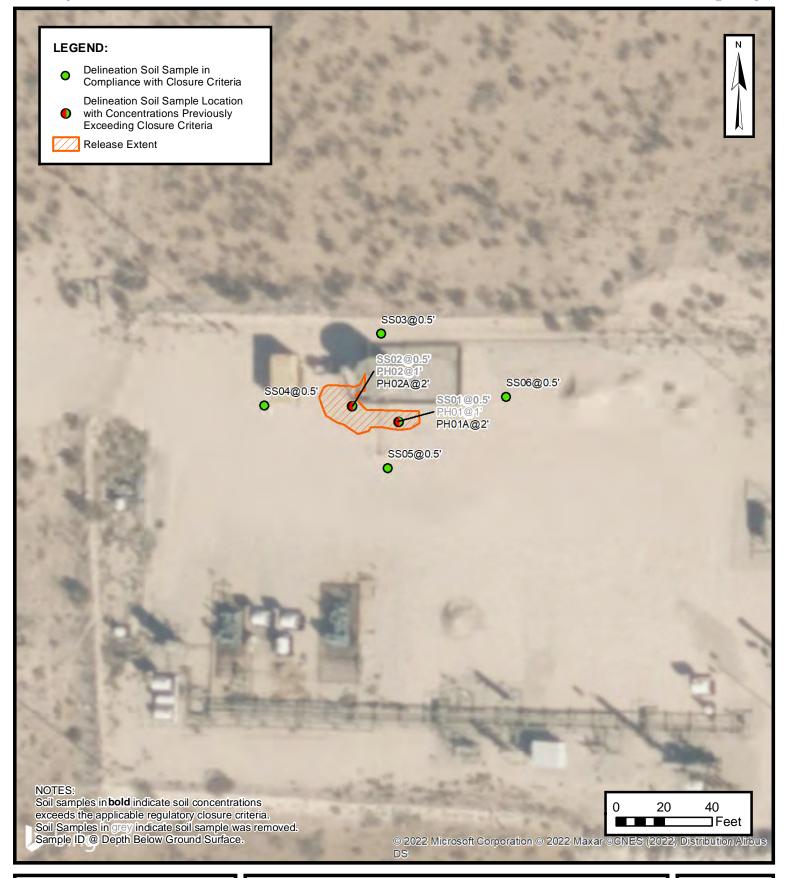
SITE RECEPTOR MAP

XTO ENERGY, INC ELK WALLOW CDP NAPP2223831434

NAPP2223831434 Unit E, Sec 11, T25S, R29E Eddy County, New Mexico FIGURE

1

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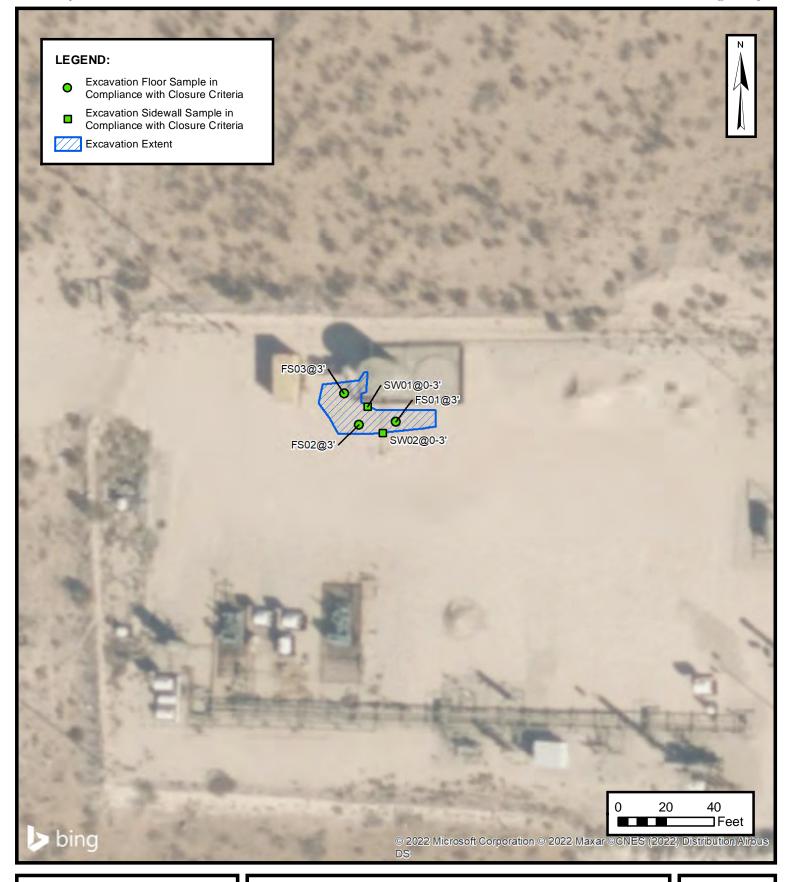




DELINEATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC ELK WALLOW CDP NAPP2223831434 Unit E, Sec 11, T25S, R29E Eddy County, New Mexico FIGURE

2





EXCAVATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC ELK WALLOW CDP NAPP2223831434 Unit E, Sec 11, T25S, R29E Eddy County, New Mexico FIGURE

3



TABLES

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TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS ELK WALLOW CDP 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 Cl	osure Criteria (l	NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	10,000
				Delir	neation Soil Sar	nples				
\$\$01	10/06/2022	0.5'	<0.200	14	836	10,300	7,180	10,300	18,300	88
\$\$02	10/06/2022	0.5'	<0.202	5	<499	10,900	9,400	10,900	20,300	28
SS03	10/06/2022	0.5'	<0.002	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	17
SS04	10/06/2022	0.5'	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	22
SS05	10/06/2022	0.5'	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	201
SS06	10/06/2022	0.5'	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	33
PH01	10/24/2022	4'	<0.00199	0.00833	< 50.0	356	< 50.0	356	356	53.9
PH01A	10/24/2022	4'	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	32.9
PH02	10/24/2022	4'	<0.00200	<0.00400	< 50.0	918	111	918	1,030	20.9
PH02A	10/24/2022	4'	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	24.5
				Confi	rmation Soil Sa	mples				
FS01	10/24/2022	3'	<0.00199	<0.00398	<49.8	59.5	<49.8	59.5	59.5	21.5
FS02	10/24/2022	3'	<0.00198	0.0127	<49.9	158	<49.9	158	158	24.7
FS03	10/24/2022	3'	<0.00200	<0.00400	<49.9	59.8	<49.9	59.8	59.8	33.2
SW01	10/24/2022	0-3'	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	37.6
SW02	10/24/2022	0-3'	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	22.1

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 requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities

Ensolum 1 of 1



APPENDIX A

Referenced Well Records



	OSE POD NO	-	(O.)		WELL TAG ID NO.			OSE FILE NO(S).				
O	POD1 (M	W-1)				C-4525							
ATI	WELL OWN		· •					PHONE (OPTIO	ONAL)				
Ö	XTO Energy (Kyle Littrell)												
1	WELL OWN	ER MAILI	NG ADDRESS					CITY		STATE		ZIP	
VEL	6401 Holid	lay Hill	Dr.					Midland		TX	79707		
9			T.	EGREES	MINUTES	SECO	NDS	<u> </u>					
¥	WELL			32°	8'	57.4		* ACCURACY	REQUIRED: ONE TENT	TH OF A	SECOND		
₹	LOCATIO		ATITUDE	103°	58'	18.2		* DATUM REC	OUIRED: WGS 84				
GENERAL AND WELL LOCATION		L	ONGITUDE				- ' ''						
1. GE	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIIP, RANGE) WHERE AVAILABLE NW NE Sec. 10 T25S R29E												
	LICENSE NO).	NAME OF LICENSE	D DRILLER					NAME OF WELL DRI	LLING C	COMPANY		
	124	19			Jackie D. Atkins	,			Atkins Eng	ineering	g Associates, I	nc.	
	DRILLING S	TARTED	DRILLING ENDED	DEPTH OF CO	MPLETED WELL (F	Т)	BORE HO	LE DEPTH (FT)	DEPTH WATER FIRS	T ENCO	UNTERED (FT)		
	05/26/	2021	05/26/2021	tempo	rary well materia	al		110		n/a	3		
				·					STATIC WATER LEV	EL IN C	OMPLETED WE	LL (FT)	
Z	COMPLETE	D WELL IS	: ARTESIAN	DRY HO	LE SHALLO	W (UNCC	NFINED)			n/a	1		
TIO	DRILLING F	LUID:	✓ AIR	MUD	ADDITIV	ES – SPE	CIFY:						
2. DRILLING & CASING INFORMATION	DRILLING N	ŒTHOD:	ROTARY	П намме	R CABLE T	CABLE TOOL OTHER - SPECIFY:		R – SPECIFY:	Hollow Stem Auger				
NFC	FROM TO		BORE HOLE	CASING	MATERIAL ANI	O/OR	O/OR CASING		CASING	CAS	CASING WALL SLOT		
I D)				Construction	GRADE (include each casing string, and			VECTION	INSIDE DIAM.		ICKNESS	SIZE	
ASIF			(inches)		note sections of screen)			YPE ling diameter)	(inches)	((inches)	(inches)	
C'	0	110	±8.5	1	Boring- HSA		, -						
Ç													
[T]													
)RI													
2.1													
	DEPTH	(feet bgl)	BORE HOLE	11	IST ANNI II AR SI	FAT. MA	TERIAL A	AND	AMOUNT		метно	D OF	
Ħ	FROM	то	DIAM. (inches)	1	LIST ANNULAR SEAL MATERIAL A GRAVEL PACK SIZE-RANGE BY INTE			(cubic feet)		PLACEN			
RI.	TROM	10		+						-			
ATI											-		
M M				·		*				_			
ANNULAR MATERIAL	<u> </u>												
S	—			-	<u></u>					-+			
3. A.	 			+						-+			
6.0				+									
		<u> </u>		1									
FILI	R OSE INTER E NO. /	UNAL US	4525		POD NO	D.		WR-2	WELL RECORD	R LOG	(Version 06/3	W17)	

255.29E.10.213

DSE DIT JUN 10 2021 22:46

WELL TAG ID NO.

PAGE 1 OF 2

LOCATION

	DEPTH (1	feet bgl)		COLOR AN	D TYPE OF MATERIAL	ENCOUN	TERED -		WATER	ESTIMATED		
			THICKNESS		R-BEARING CAVITIES			s	BEARING?	YIELD FOR WATER- BEARING		
	FROM	TO	(feet)	(attach sup	(attach supplemental sheets to fully describe all units) (Yang Calliche, mod. consolidated, tan-off white, dry							
	0	24	24	CALIC	Y ✓N							
	24	29	5	SAND, poorly gra	ded, very- fine grained, ca	liche grave	l, light-brow	n	Y ✓N			
	29	39	10	SAND, poorly graded	l, very- fine grained, calich	e gravel, l	ight-brown, n	noist	Y ✓N			
	39	44	5	SAND, poorly	y graded, very- fine graine	d, light-bro	wn, moist		Y ✓N			
	44	59	15	SAND, poorly	y graded, very- fine graine	d, light-bro	wn, moist		Y ✓N			
E.	59	69	10	SAND, poo	orly graded, very- fine grai	ned, brown	ı, moist		Y /N			
WE	69	74	5	SAND, poorly gra	ded, very- fine grained, cal	iche grave	l, brown, moi	st	Y ✓N			
OF	74	79	5	SILTY SAND, poorly	graded, very- fine grained	, caliche g	avel, brown,	moist	Y ✓N			
507	79	89	10	SAND, poorly g	graded, very- fine grained,	with silt, b	rown, moist		Y ✓N			
CIC.	89	94	5	SILTY SAND, poorly	graded, very- fine grained	, caliche g	avel, brown,	moist	Y ✓N			
4. HYDROGEOLOGIC LOG OF WELL	94	110	16	SILTY SAND,	poorly graded, very- fine	grained, b	own, moist		Y ✓N			
GEC									Y N			
DRO									Y N			
HA									Y N			
4.									Y N			
									Y N			
									Y N			
									Y N			
									Y N			
									Y N			
									Y N			
	METHOD U	SED TO ES	TIMATE YIELD	OF WATER-BEARING	G STRATA:				AL ESTIMATED			
	D PUMI	P A	IR LIFT	BAILER OT	HER – SPECIFY:			WEI	LL YIELD (gpm):	0.00		
NC	WELL TES				A COLLECTED DURING							
VISION	MISCELLA	NEOUS INF	ORMATION: _									
		.,	fe	emporary well materia et below ground surfa	als removed and the soil ce, then hydrated bento	boring banite chips	ackfilled usi from ten fe	ng dril et belo	l cuttings from to w ground surface	tal depth to ten to surface.		
: SUI			L	ogs adapted from WSI	P on-site geologist.	•			C			
TEST; RIG SUPEI												
EST	PRINT NAN	(E(S) OF DI	RILL RIG SUPER	VISOR(S) THAT PRO	VIDED ONSITE SUPERV	/ISION O	WELL CON	STRII	CTION OTHER TH	AN LICENSEE		
5. T		, ,	elo Trevino, Can		VIDED ONDITE DOLLAR	ibioi oi	W BBB COIN	DINO.		an Diobrobb.		
	Share Eldin	uge, carine	olo Trevino, Can									
URE	CORRECT I	RECORD O	F THE ABOVE I	ESCRIBED HOLE AN	EST OF HIS OR HER KN D THAT HE OR SHE WI PLETION OF WELL DRI	LL FILE T						
SIGNATURE	Jack 1	Atkins		Jac	ckie D. Atkins				06/09/2021			
6. S		CICNAT	UDE OF DRIVE	R / PRINT SIGNEE	NI A NATZ				DATE			
		DIGITAL	ORD OF DRIEDE	A / IMMI SIGNED	WE WILL				DATE			
	OSE INTER		1162-		non vic	, 		LL RE	CORD & LOG (Ver	rsion 06/30/2017)		
—	E NO.	<u></u>	<u>4525</u>		POD NO.	<u>'</u>	TRN NO.	U	92076	PACE A OF A		
LO	CATION					WELL	TAG ID NO.			PAGE 2 OF 2		



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS	Water	Reso	urces

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

Click to hideNews Bulletins

- Effective October 24, 2022 hyperlinks to legacy Current Condition pages will automatically redirect users to the corresponding Monitoring Location page. Please see the Water Data For The Nation Blog for full details, including how to navigate back to the legacy Current Condition page, if desired.
- Explore the NEW <u>USGS National Water Dashboard</u> interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

Groundwater levels for the Nation

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

Search Results -- 1 sites found

site_no list =

• 320739103584201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 320739103584201 25S.29E.15.31134

Available data for this site Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°07'39", Longitude 103°58'42" NAD27

Land-surface elevation 3,017 feet above NAVD88

The depth of the well is 192 feet below land surface.

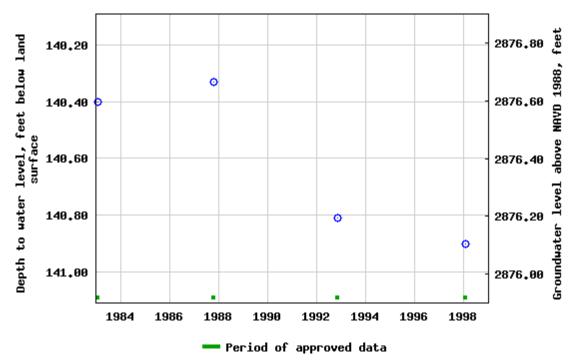
This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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

USGS 320739103584201 255,29E,15,31134



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
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Data Tips
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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: 2022-11-09 09:46:48 EST

0.54 0.47 nadww01





APPENDIX B

Photographic Log



Photographic Log

XTO Energy, INC Elk Wallow CDP NAPP2223831434





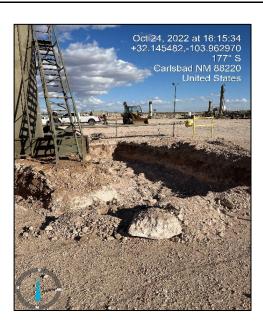
Photograph: 1 Date: 10/6/2022

Description: View of soil staining extent

View: Northeast

Photograph: 2 Date: 10/24/2022 Description: Liner inspection, no visible deficiencies.

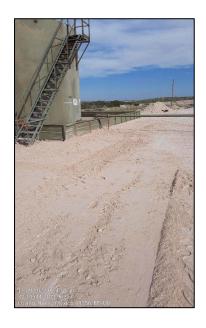
View: West



Photograph: 3 Date: 10/24/2022

Description: Excavation activities

View: Southwest



Photograph: 4 Date: 11/09/2022

Description: Backfilling activities

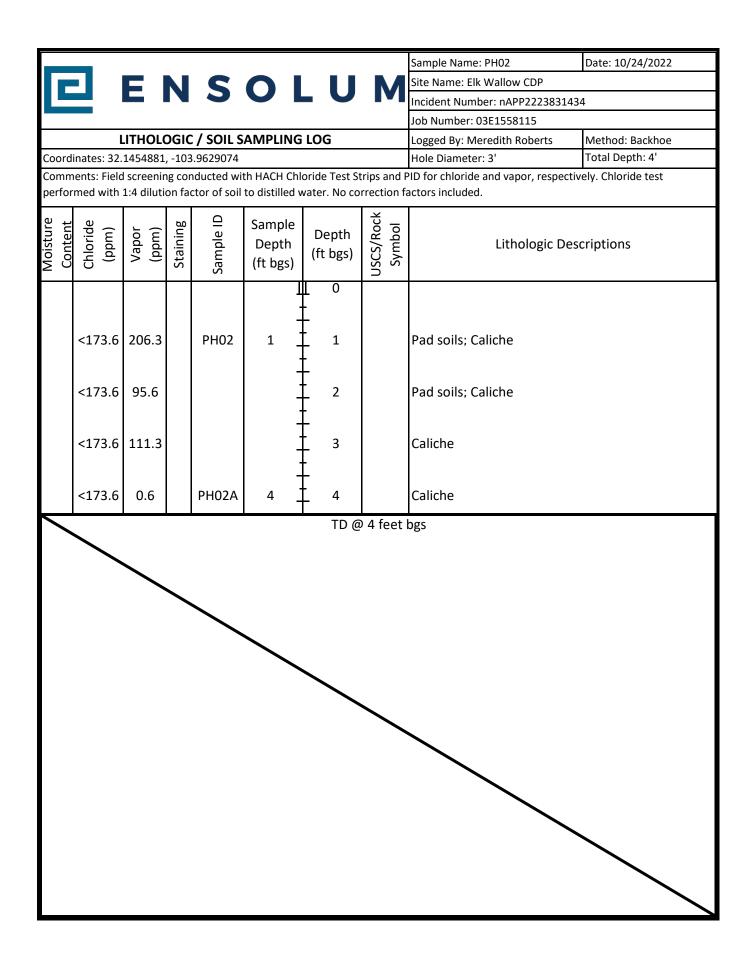
View: Northeast



APPENDIX C

Lithologic Soil Sampling Logs

								Sample Name: PH01	Date: 10/24/2022	
		FI	M	S	OI		M	Site Name: Elk Wallow CDP		
						Site Name: Elk Wallow CDP Incident Number: nAPP2223831434				
	-					Job Number: 03E1558115				
					AMPLING	Logged By: Meredith Roberts	Method: Backhoe			
	inates: 32.							Hole Diameter: 3'	Total Depth: 4'	
			-				rrection f	PID for chloride and vapor, respondence included.	ectively. Chloride test	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic I	Descriptions	
						<u> </u>				
	473.6	164.6		PH01	1 _	1		Pad soils; Caliche		
	473.6	28.5			- - -	2		Pad soils; Caliche		
	<173.6	8.5			- - -	3		Caliche		
	473.6	4.5		PH01A	4 _	4		Caliche TD @ 4 feet bgs		
		\	\	_						





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: 890-3164-1

Laboratory Sample Delivery Group: 03E1558115

Client Project/Site: Elk Wallow CDP

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

10/14/2022 2:28:33 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

Have a Question?

EOL

------ LINKS ------

Review your project results through

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/3/2023 9:40:16 AM

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

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

Client: Ensolum
Project/Site: Elk Wallow CDP
Laboratory Job ID: 890-3164-1
SDG: 03E1558115

Table of Contents

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Case Narrative	4
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Surrogate Summary	6
QC Sample Results	7
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

Definitions/Glossary

Job ID: 890-3164-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier **Qualifier Description**

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this repo	ort.
Abbicviation	These commonly asea appreviations may of may not be present in this rep	Oit.

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

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

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

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

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

MDL Method Detection Limit Minimum Level (Dioxin) ML 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)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

TNTC Too Numerous To Count

Eurofins Carlsbad

Case Narrative

Client: Ensolum

Project/Site: Elk Wallow CDP

Job ID: 890-3164-1

SDG: 03E1558115

Job ID: 890-3164-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3164-1

Receipt

The sample was received on 10/6/2022 1:00 PM. 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 9.6°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS06 (890-3164-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-36395 and analytical batch 880-36488 contained Diesel Range Organics (Over C10-C28) 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.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36395 and analytical batch 880-36488 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36394 and analytical batch 880-36739 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

2

4

5

6

8

3

11

13

14

Matrix: Solid

Lab Sample ID: 890-3164-1

Client Sample Results

Client: Ensolum Job ID: 890-3164-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SS06

Date Collected: 10/06/22 09:10 Date Received: 10/06/22 13:00

Sample Depth: 0.5

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/14/22 08:57	10/14/22 11:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/14/22 08:57	10/14/22 11:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/14/22 08:57	10/14/22 11:43	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/14/22 08:57	10/14/22 11:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/14/22 08:57	10/14/22 11:43	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/14/22 08:57	10/14/22 11:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			10/14/22 08:57	10/14/22 11:43	1
1,4-Difluorobenzene (Surr)	85		70 - 130			10/14/22 08:57	10/14/22 11:43	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/14/22 15:05	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/11/22 09:32	1
- Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 14:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 14:48	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 14:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			10/07/22 15:16	10/10/22 14:48	1
o-Terphenyl	99		70 - 130			10/07/22 15:16	10/10/22 14:48	1
Method: MCAWW 300.0 - Anions	s, Ion Chromato	ography - S	oluble					
		U . F . J . T						

4.97

mg/Kg

33.1

Eurofins Carlsbad

10/11/22 23:10

Surrogate Summary

Client: Ensolum Job ID: 890-3164-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

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)	
890-3164-1	SS06	107	85	
890-3164-1 MS	SS06	103	98	
890-3164-1 MSD	SS06	92	94	
LCS 880-36936/1-A	Lab Control Sample	91	95	
LCSD 880-36936/2-A	Lab Control Sample Dup	92	95	
MB 880-36936/5-A	Method Blank	102	82	
Surrogate Legend				

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

Matrix: Solid Prep Type: Total/NA

		4004	OTDUA	Percent Surrogate Recovery (Acceptance Limits)
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3155-A-1-C MS	Matrix Spike	82	78	
890-3155-A-1-D MSD	Matrix Spike Duplicate	82	78	
890-3164-1	SS06	97	99	
LCS 880-36395/2-A	Lab Control Sample	107	117	
LCSD 880-36395/3-A	Lab Control Sample Dup	106	113	
MB 880-36395/1-A	Method Blank	112	121	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Carlsbad

Client: Ensolum Job ID: 890-3164-1 SDG: 03E1558115 Project/Site: Elk Wallow CDP

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36936/5-A

Matrix: Solid Analysis Batch: 36928 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36936

	MB	мв						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/14/22 08:57	10/14/22 11:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/14/22 08:57	10/14/22 11:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/14/22 08:57	10/14/22 11:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/14/22 08:57	10/14/22 11:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/14/22 08:57	10/14/22 11:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/14/22 08:57	10/14/22 11:21	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	10/14/22 08:57	10/14/22 11:21	1
1.4-Difluorobenzene (Surr)	82		70 - 130	10/14/22 08:57	10/14/22 11:21	1

Lab Sample ID: LCS 880-36936/1-A

Matrix: Solid

Analysis Batch: 36928

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36936

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1022		mg/Kg		102	70 - 130	
Toluene	0.100	0.1041		mg/Kg		104	70 - 130	
Ethylbenzene	0.100	0.09738		mg/Kg		97	70 - 130	
m-Xylene & p-Xylene	0.200	0.2055		mg/Kg		103	70 - 130	
o-Xylene	0.100	0.1023		mg/Kg		102	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	91	70 - 130
1,4-Difluorobenzene (Surr)	95	70 - 130

Lab Sample ID: LCSD 880-36936/2-A

Matrix: Solid

Analysis Batch: 36928

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36936

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Limit Benzene 0.100 0.1058 mg/Kg 106 70 - 130 3 35 Toluene 0.100 0.1063 mg/Kg 106 70 - 130 2 35 Ethylbenzene 0.100 0.1010 mg/Kg 101 70 - 130 35 0.200 m-Xylene & p-Xylene 0.2091 mg/Kg 105 70 - 130 35 0.100 0.1050 105 70 - 130 o-Xylene mg/Kg 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-3164-1 MS

Matrix: Solid

Analysis Batch: 36928

Client Sample ID: SS06 Prep Type: Total/NA

Prep Batch: 36936

-	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.100	0.08153		mg/Kg		81	70 - 130	
Toluene	<0.00200	U	0.100	0.08840		mg/Kg		88	70 - 130	

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QC Sample Results

Job ID: 890-3164-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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

Lab Sample ID: 890-3164-1 MS **Matrix: Solid**

Analysis Batch: 36928

Client Sample ID: SS06 Prep Type: Total/NA

Prep Batch: 36936

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits D Ethylbenzene <0.00200 U 0.100 0.09509 95 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00401 0.200 0.2037 mg/Kg 102 70 - 130 0.100 o-Xylene <0.00200 U 0.1023 102 70 - 130 mg/Kg

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 890-3164-1 MSD

Matrix: Solid

Analysis Batch: 36928

Client Sample ID: SS06 Prep Type: Total/NA

Prep Batch: 36936

Sample Sample Spike MSD MSD RPD Result Qualifier RPD Limit Analyte babbA Result Qualifier %Rec Limits Unit Benzene <0.00200 U 0.0990 0.08924 mg/Kg 90 70 - 130 9 35 Toluene <0.00200 0.0990 0.09029 mg/Kg 91 70 - 130 2 35 Ethylbenzene <0.00200 U 0.0990 0.08591 87 70 - 130 10 35 mg/Kg 0.198 m-Xylene & p-Xylene <0.00401 U 0.1777 mg/Kg 90 70 - 130 14 35 0.0990 <0.00200 U 0.09004 91 70 - 130 o-Xylene mg/Kg 13

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

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

Lab Sample ID: MB 880-36395/1-A

Matrix: Solid

Analysis Batch: 36488

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36395

мв мв Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte 50.0 10/07/22 15:16 10/10/22 10:59 <50.0 U Gasoline Range Organics mg/Kg (GRO)-C6-C10 10/07/22 15:16 10/10/22 10:59 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 10/07/22 15:16 10/10/22 10:59 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	1	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	10/	/07/22 15:16	10/10/22 10:59	1
o-Terphenyl	121		70 - 130	10/	/07/22 15:16	10/10/22 10:59	1

Lab Sample ID: LCS 880-36395/2-A

Matrix: Solid

Analysis Batch: 36488

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

Prep Batch: 36395

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	996.9		mg/Kg		100	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	946.9		mg/Kg		95	70 - 130	
C10-C28)								

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10/14/2022

Job ID: 890-3164-1

Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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

Lab Sample ID: LCS 880-36395/2-A Client Sample ID: Lab Control Sample

Matrix: Solid Prep Type: Total/NA Analysis Batch: 36488 Prep Batch: 36395

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 107 70 - 130 o-Terphenyl 117 70 - 130

Lab Sample ID: LCSD 880-36395/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 36488** Prep Batch: 36395

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 1023 102 70 - 1303 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 992.6 99 mg/Kg 70 - 13020 5 C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 106 113 70 - 130 o-Terphenyl

Lab Sample ID: 890-3155-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 36488** Prep Batch: 36395

Sample Sample MS MS Spike Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <50.0 U 998 983.4 mg/Kg 96 70 - 130

(GRO)-C6-C10 <50.0 U F1 Diesel Range Organics (Over 998 671.0 F1 mg/Kg 66 70 - 130

70 - 130

C10-C28)

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

78

Lab Sample ID: 890-3155-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 36488 Prep Batch: 36395

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <50.0 U 999 1010 99 Gasoline Range Organics 70 - 130 20 mg/Kg (GRO)-C6-C10 20

Diesel Range Organics (Over <50.0 U F1 999 687.0 F1 mg/Kg 67 70 - 130 2 C10-C28)

MSD MSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 82 70 - 130 78 70 - 130 o-Terphenyl

Eurofins Carlsbad

o-Terphenyl

QC Sample Results

Job ID: 890-3164-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36394/1-A

Matrix: Solid

Analysis Batch: 36739

Client Sample ID: Method Blank **Prep Type: Soluble**

мв мв Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 10/11/22 20:54

Lab Sample ID: LCS 880-36394/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36739

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 258.9 mg/Kg 104 90 - 110

Lab Sample ID: LCSD 880-36394/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36739

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 269.0 mg/Kg 108 90 - 110

Lab Sample ID: 890-3163-A-7-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36739

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added %Rec Result Qualifier Unit Limits Chloride 241 F1 249 489.4 100 90 - 110 mg/Kg

Lab Sample ID: 890-3163-A-7-D MSD

Matrix: Solid

Analysis Batch: 36739

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 241 F1 249 520.0 F1 Chloride mg/Kg 112 90 - 110 6 20

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Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

QC Association Summary

 Client: Ensolum
 Job ID: 890-3164-1

 Project/Site: Elk Wallow CDP
 SDG: 03E1558115

GC VOA

Analysis Batch: 36928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3164-1	SS06	Total/NA	Solid	8021B	36936
MB 880-36936/5-A	Method Blank	Total/NA	Solid	8021B	36936
LCS 880-36936/1-A	Lab Control Sample	Total/NA	Solid	8021B	36936
LCSD 880-36936/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36936
890-3164-1 MS	SS06	Total/NA	Solid	8021B	36936
890-3164-1 MSD	SS06	Total/NA	Solid	8021B	36936

Prep Batch: 36936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3164-1	SS06	Total/NA	Solid	5035	<u> </u>
MB 880-36936/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36936/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36936/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3164-1 MS	SS06	Total/NA	Solid	5035	
890-3164-1 MSD	SS06	Total/NA	Solid	5035	

Analysis Batch: 36986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3164-1	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 36395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3164-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3164-1	SS06	Total/NA	Solid	8015B NM	36395
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015B NM	36395
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36395
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36395
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36395
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36395

Analysis Batch: 36652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3164-1	SS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36394

Г					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3164-1	SS06	Soluble	Solid	DI Leach	
MB 880-36394/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36394/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36394/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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Page 11 of 19

QC Association Summary

Client: Ensolum
Project/Site: Elk Wallow CDP
Job ID: 890-3164-1
SDG: 03E1558115

HPLC/IC (Continued)

Leach Batch: 36394 (Continued)

Lab S	ample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3	163-A-7-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3	163-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3164-1	SS06	Soluble	Solid	300.0	36394
MB 880-36394/1-A	Method Blank	Soluble	Solid	300.0	36394
LCS 880-36394/2-A	Lab Control Sample	Soluble	Solid	300.0	36394
LCSD 880-36394/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36394
890-3163-A-7-C MS	Matrix Spike	Soluble	Solid	300.0	36394
890-3163-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36394

4

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Date Received: 10/06/22 13:00

Lab Chronicle

Client: Ensolum Job ID: 890-3164-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SS06 Lab Sample ID: 890-3164-1 Date Collected: 10/06/22 09:10

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36936	10/14/22 08:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36928	10/14/22 11:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36986	10/14/22 15:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			36652	10/11/22 09:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36395	10/07/22 15:16	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36488	10/10/22 14:48	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36394	10/07/22 15:14	СН	EET MID
Soluble	Analysis	300.0		1			36739	10/11/22 23:10	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Elk Wallow CDP
Job ID: 890-3164-1
SDG: 03E1558115

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes the agency does not of		ut the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes fo
and agoing, accounter or	ici oci illoation.			
Analysis Method	Prep Method	Matrix	Analyte	
9 ,		Matrix Solid	Analyte Total TPH	

3

4

6

0

10

12

13

Method Summary

Job ID: 890-3164-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

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: Elk Wallow CDP

Job ID: 890-3164-1

SDG: 03E1558115

Lab Sample ID Client Sample ID Matrix Collected Received Depth 890-3164-1 SS06 Solid 10/06/22 09:10 10/06/22 13:00 0.5

eurofins Xenco **Environment Testing**

Project Manager:

Tacoma Morrissey

Ensolum

City, State ZIP: Address: Company Name:

Carlsbad, NM 88220 3122 National Parks Hwy

City, State ZIP:

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

Company Name: Bill to: (if different)

Address:

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

Deliverables: EDD L ADaP L Other:
Reporting: Level II
State of Project:
Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
Work Order Comments
www.xenco.com Page / of /
Work Order No:

Phone: 303-887 Project Name: Project Location: 32 Sampler's Name: PO #: 32 Sample Received Intact: Cooler Custody Seals: Yes Sample Custody Seals: Yes Total Containers: Sample Identification \$\$306\$	2946 Elk Wallow Cl 03E1558116 03E1558116 14551,-103.9 Kase Parkel Kase Parkel ss No Na ss No	s No momenter section Fa sected Telescated T			- Cont Parameters Cont Paramet	× CHLORIDES (EPA: 300.0)		ANALYSIS REQUEST 890-3164 Chain of Custody	Stody St	Preservative Codes None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na H ₃ PO ₄ : NaBIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC Sample Comments Incident ID: nAPP2223831434 Cost Center: 1067691001
Sample Identificat	Matrix	Date Sampled	-	Grab/ Comp	# of	CHLORII			San	mple Comments
SS06	S	10/6/2022	+	+	1	×	×		Incident	ID: APP2223831434
	/					Ш			Cost Cer	nter:
			$/\!$		/		-		AFE:	100/09/1001
					A	1	\mathbb{A}			
						-	\prod			
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	200.8 / 6020: etal(s) to be analya	8R	8RCRA 13PPM TCLP/SPLP	M Texas 11 Al .P 6010: 8RCRA	AI Sb CRA St	b As Sb As	Ba Be s Ba Be	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Fe Pb Mg Mn Mo Ni TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn Mo Ni Se Ag Ti U Hg: 1631/245.1/7470/7471	Sn U V Zn 7470 / 7471
Notice: Signature of this docume of service. Eurofins Xenco will b of Eurofins Xenco. A minimum c	ent and relinquishment on the cost and relinquishment on the cost arge of \$85.00 will be	of samples const it of samples and applied to each p	itutes a valid pur shall not assume roject and a char	chase order from e any responsibil ge of \$5 for each	client co	ompany t y losses submitte	o Eurofi or expei d to Euro	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.	s standard terms and conditions ircumstances beyond the control forced unless previously negotiated.	
Relinquished by (Signature)	(pature)	Received	Received by: (Signature)	re)	3	Date/Time	e e e	Relinquished by: (Signature)	Received by: (Signature)	Date/Time

Revised Date: 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3164-1 SDG Number: 03E1558115

Login Number: 3164 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3164-1 SDG Number: 03E1558115

List Source: Eurofins Midland

List Number: 2 Creator: Rodriguez, Leticia

Login Number: 3164

List Creation: 10/07/22 11:00 AM

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

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3165-1

Laboratory Sample Delivery Group: 03E1558115

Client Project/Site: Elk Wallow CDP

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

Authorized for release by: 10/13/2022 3:13:21 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com



Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/3/2023 9:40:16 AM

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

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

Client: Ensolum
Project/Site: Elk Wallow CDP
Laboratory Job ID: 890-3165-1
SDG: 03E1558115

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Definitions/Glossary

Job ID: 890-3165-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

Qualifiers

GC VOA

Qualifier **Qualifier Description** F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

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

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac **Dilution Factor**

Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

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

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

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

NC Not Calculated

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

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

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

TNTC Too Numerous To Count

Released to Imaging: 2/3/2023 9:40:16 AM

Case Narrative

Client: Ensolum

Project/Site: Elk Wallow CDP

Job ID: 890-3165-1

SDG: 03E1558115

Job ID: 890-3165-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3165-1

Receipt

The sample was received on 10/6/2022 1:00 PM. 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 9.6°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS05 (890-3165-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36737 and analytical batch 880-36814 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

GC Semi VOA

Method 8015MOD NM: The method blank for preparation batch 880-36395 and analytical batch 880-36488 contained Diesel Range Organics (Over C10-C28) 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.

Method 8015MOD NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36395 and analytical batch 880-36488 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

Method 300 ORGFM 28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36394 and analytical batch 880-36739 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum

Project/Site: Elk Wallow CDP

Job ID: 890-3165-1

SDG: 03E1558115

Client Sample ID: SS05

Date Collected: 10/06/22 09:05

<0.00402 U

Lab Sample ID: 890-3165-1 Matrix: Solid

10/13/22 15:29

Date Received: 10/06/22 13:00 Sample Depth: 0.5

Total BTEX

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F2 F1	0.00201	mg/Kg		10/12/22 10:15	10/13/22 11:38	1
Toluene	<0.00201	U F2 F1	0.00201	mg/Kg		10/12/22 10:15	10/13/22 11:38	1
Ethylbenzene	<0.00201	U F2 F1	0.00201	mg/Kg		10/12/22 10:15	10/13/22 11:38	1
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.00402	mg/Kg		10/12/22 10:15	10/13/22 11:38	1
o-Xylene	<0.00201	U F2 F1	0.00201	mg/Kg		10/12/22 10:15	10/13/22 11:38	1
Xylenes, Total	<0.00402	U F2 F1	0.00402	mg/Kg		10/12/22 10:15	10/13/22 11:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130			10/12/22 10:15	10/13/22 11:38	1
1,4-Difluorobenzene (Surr)	76		70 - 130			10/12/22 10:15	10/13/22 11:38	1
Method: TAL SOP Total BTEX	- Total RTEY Cald	culation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Method: SW846 8015 NM - Diesel F	Range Organi	ics (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/11/22 09:32	1

0.00402

mg/Kg

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/07/22 15:16	10/10/22 15:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/07/22 15:16	10/10/22 15:12	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/07/22 15:16	10/10/22 15:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			10/07/22 15:16	10/10/22 15:12	1
o-Terphenyl	102		70 - 130			10/07/22 15:16	10/10/22 15:12	1

Method: MCAWW 300.0 - Anions, Id	on Chromatography - Solu	ıple					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	201	5.05	mg/Kg			10/11/22 23:15	1

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Surrogate Summary

Client: Ensolum Job ID: 890-3165-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

•				Percent Surrogate Rec
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3165-1	SS05	124	76	
890-3165-1 MS	SS05	110	98	
890-3165-1 MSD	SS05	109	98	
LCS 880-36737/1-A	Lab Control Sample	97	92	
LCSD 880-36737/2-A	Lab Control Sample Dup	95	91	
MB 880-36737/5-A	Method Blank	107	81	
Surrogate Legend				
BFB = 4-Bromofluorobenz	zene (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)	
890-3155-A-1-C MS	Matrix Spike	82	78	
890-3155-A-1-D MSD	Matrix Spike Duplicate	82	78	
890-3165-1	SS05	97	102	
LCS 880-36395/2-A	Lab Control Sample	107	117	
LCSD 880-36395/3-A	Lab Control Sample Dup	106	113	
MB 880-36395/1-A	Method Blank	112	121	
Surrogate Legend				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Client: Ensolum
Project/Site: Elk Wallow CDP
SD

Job ID: 890-3165-1 SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36737/5-A

Lab Sample ID: LCS 880-36737/1-A

Matrix: Solid

Analysis Batch: 36814

Matrix: Solid Analysis Batch: 36814 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36737

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:15	10/13/22 11:17	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:15	10/13/22 11:17	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:15	10/13/22 11:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/12/22 10:15	10/13/22 11:17	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:15	10/13/22 11:17	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/12/22 10:15	10/13/22 11:17	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepare	ed	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	10/12/22 1	0:15	10/13/22 11:17	1
1,4-Difluorobenzene (Surr)	81		70 - 130	10/12/22 1	0:15	10/13/22 11:17	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36737

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1052 mg/Kg 105 70 - 130 Toluene 0.100 0.1114 mg/Kg 111 70 - 130 0.100 0.1086 109 Ethylbenzene mg/Kg 70 - 130 0.200 70 - 130 m-Xylene & p-Xylene 0.2316 mg/Kg 116 0.100 0.1136 70 - 130 o-Xylene mg/Kg 114

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	97	70 - 130
1,4-Difluorobenzene (Surr)	92	70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 36814

Lab Sample ID: LCSD 880-36737/2-A

Prep Type: Total/NA Prep Batch: 36737

	Spike	LCSD	LCSD				70KeC		KFD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1086		mg/Kg		109	70 - 130	3	35	
Toluene	0.100	0.1118		mg/Kg		112	70 - 130	0	35	
Ethylbenzene	0.100	0.1078		mg/Kg		108	70 - 130	1	35	
m-Xylene & p-Xylene	0.200	0.2234		mg/Kg		112	70 - 130	4	35	
o-Xylene	0.100	0.1108		mg/Kg		111	70 - 130	2	35	

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	95	70 - 130
1,4-Difluorobenzene (Surr)	91	70 - 130

Lab Sample ID: 890-3165-1 MS

Matrix: Solid

Analysis Batch: 36814

Client Sample ID: SS05
Prep Type: Total/NA

Prep Batch: 36737

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F2 F1	0.100	0.08431		mg/Kg		84	70 - 130	
Toluene	<0.00201	U F2 F1	0.100	0.09200		mg/Kg		92	70 - 130	

QC Sample Results

Client: Ensolum Job ID: 890-3165-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

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

110

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Lab Sample ID: 890-3165-1 MS

Matrix: Solid Analysis Batch: 36814

Client Sample ID: SS05 Prep Type: Total/NA Prep Batch: 36737

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U F2 F1	0.100	0.09140		mg/Kg		91	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.201	0.2004		mg/Kg		100	70 - 130	
o-Xylene	<0.00201	U F2 F1	0.100	0.1035		mg/Kg		103	70 - 130	
	MS	MS								
Surrogate	%Recovery	Qualifier	l imits							

70 - 130

70 - 130

Lab Sample ID: 890-3165-1 MSD

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Client Sample ID: SS05 Matrix: Solid Prep Type: Total/NA Analysis Batch: 36814 Prep Batch: 36737

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U F2 F1	0.0990	0.04547	F2 F1	mg/Kg		46	70 - 130	60	35
Toluene	<0.00201	U F2 F1	0.0990	0.04339	F2 F1	mg/Kg		44	70 - 130	72	35
Ethylbenzene	<0.00201	U F2 F1	0.0990	0.04388	F2 F1	mg/Kg		44	70 - 130	70	35
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.198	0.09555	F2 F1	mg/Kg		48	70 - 130	71	35
o-Xylene	<0.00201	U F2 F1	0.0990	0.05969	F2 F1	mg/Kg		60	70 - 130	54	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 880-36395/1-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 36488

Prep Batch: 36395 MB MB Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte 10/07/22 15:16 10/10/22 10:59 <50.0 U 50.0 Gasoline Range Organics mg/Kg (GRO)-C6-C10 10/10/22 10:59 Diesel Range Organics (Over <50.0 U 50.0 10/07/22 15:16 mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 10/07/22 15:16 10/10/22 10:59 mg/Kg

MB MB

	Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	112	70 - 130	10/07/22 15:16	10/10/22 10:59	1
1	o-Terphenyl	121	70 - 130	10/07/22 15:16	10/10/22 10:59	1

Lab Sample ID: LCS 880-36395/2-A

Matrix: Solid							Prep 7	Type: To	tal/NA
Analysis Batch: 36488							Prep	Batch:	36395
	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	1000	996.9		mg/Kg		100	70 - 130		
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	946.9		mg/Kg		95	70 - 130		
C10-C28)									

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Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Job ID: 890-3165-1

Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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

LCS LCS

Lab Sample ID: LCS 880-36395/2-A Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 36488

Prep Type: Total/NA

Prep Batch: 36395

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 107 70 - 130 o-Terphenyl 117 70 - 130

Lab Sample ID: LCSD 880-36395/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 36488

Prep Type: Total/NA

Prep Batch: 36395

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 1023 102 70 - 1303 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 992.6 99 mg/Kg 70 - 13020 5 C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 106 70 - 130 1-Chlorooctane 113 70 - 130 o-Terphenyl

Lab Sample ID: 890-3155-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 36488

Prep Type: Total/NA

Prep Batch: 36395

Sample Sample MS MS Spike Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <50.0 U 998 983.4 mg/Kg 96 70 - 130 (GRO)-C6-C10 <50.0 U F1 Diesel Range Organics (Over 998 671.0 F1 mg/Kg 66 70 - 130 C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 82 o-Terphenyl 78 70 - 130

Lab Sample ID: 890-3155-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 36488

Prep Type: Total/NA

Prep Batch: 36395

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <50.0 U 999 1010 99 70 - 130 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U F1 999 687.0 F1 mg/Kg 67 70 - 130 20 C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	78		70 - 130

Client: Ensolum Job ID: 890-3165-1 Project/Site: Elk Wallow CDP

SDG: 03E1558115

10/11/22 20:54

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36394/1-A

Matrix: Solid

Analysis Batch: 36739

Analyte

Chloride

Client Sample ID: Method Blank **Prep Type: Soluble**

мв мв Dil Fac Result Qualifier RL Unit D Prepared Analyzed

mg/Kg

Lab Sample ID: LCS 880-36394/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

5.00

Analysis Batch: 36739

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 258.9 mg/Kg 104 90 - 110

<5.00 U

Lab Sample ID: LCSD 880-36394/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36739

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 269.0 mg/Kg 108 90 - 110

Lab Sample ID: 890-3163-A-7-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36739

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added %Rec Result Qualifier Unit Limits Chloride 241 F1 249 489.4 100 90 - 110 mg/Kg

Lab Sample ID: 890-3163-A-7-D MSD

Matrix: Solid

Analysis Batch: 36739

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 241 F1 249 520.0 F1 Chloride mg/Kg 112 90 - 110 6 20

QC Association Summary

 Client: Ensolum
 Job ID: 890-3165-1

 Project/Site: Elk Wallow CDP
 SDG: 03E1558115

GC VOA

Prep Batch: 36737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3165-1	SS05	Total/NA	Solid	5035	
MB 880-36737/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36737/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36737/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3165-1 MS	SS05	Total/NA	Solid	5035	
890-3165-1 MSD	SS05	Total/NA	Solid	5035	

Analysis Batch: 36814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3165-1	SS05	Total/NA	Solid	8021B	36737
MB 880-36737/5-A	Method Blank	Total/NA	Solid	8021B	36737
LCS 880-36737/1-A	Lab Control Sample	Total/NA	Solid	8021B	36737
LCSD 880-36737/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36737
890-3165-1 MS	SS05	Total/NA	Solid	8021B	36737
890-3165-1 MSD	SS05	Total/NA	Solid	8021B	36737

Analysis Batch: 36897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3165-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 36395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3165-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3165-1	SS05	Total/NA	Solid	8015B NM	36395
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015B NM	36395
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36395
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36395
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36395
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36395

Analysis Batch: 36653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3165-1	SS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36394

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3165-1	SS05	Soluble	Solid	DI Leach	
MB 880-36394/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36394/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36394/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum

Project/Site: Elk Wallow CDP

Job ID: 890-3165-1

SDG: 03E1558115

HPLC/IC (Continued)

Leach Batch: 36394 (Continued)

Lab S	ample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3	163-A-7-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3	163-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3165-1	SS05	Soluble	Solid	300.0	36394
MB 880-36394/1-A	Method Blank	Soluble	Solid	300.0	36394
LCS 880-36394/2-A	Lab Control Sample	Soluble	Solid	300.0	36394
LCSD 880-36394/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36394
890-3163-A-7-C MS	Matrix Spike	Soluble	Solid	300.0	36394
890-3163-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36394

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Lab Chronicle

Client: Ensolum Job ID: 890-3165-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SS05 Lab Sample ID: 890-3165-1 Date Collected: 10/06/22 09:05

Matrix: Solid

Date Received: 10/06/22 13:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	36737	10/12/22 10:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36814	10/13/22 11:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36897	10/13/22 15:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			36653	10/11/22 09:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	36395	10/07/22 15:16	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36488	10/10/22 15:12	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	36394	10/07/22 15:14	CH	EET MID
Soluble	Analysis	300.0		1			36739	10/11/22 23:15	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3165-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date	
Texas NE		ELAP	T104704400-22-24	06-30-23	
The following analytes the agency does not of	. ,	ut the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes fo	
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		

Method Summary

Job ID: 890-3165-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

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: Elk Wallow CDP

Job ID: 890-3165-1

SDG: 03E1558115

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3165-1	SS05	Solid	10/06/22 09:05	10/06/22 13:00	0.5

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Address:

City, State ZIP:

Carlsbad, NM 88220

City, State ZIP:

Carlsbad, NM 88220 3104 E. Green St.

3122 National Parks Hwy

Project Manager:

Tacoma Morrissey

Bill to: (if different) Company Name:

Garret Green XTO Energy

Xenco

Environment Testing

Company Name:

Ensolum

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:
www.xenco.com Page f of C
Work Order Comments
³rogram: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV☐
Deliverables: EDD ☐ ADaPT ☐ Other:

3	Drag	ANALTSIS REQUEST	-	LIESEI AGUAE COMES
Koutine L Rush	Code		None: NO	NO DI Water: H ₂ O
Due Date:			Cool: Cool	Cool MeOH: Me
TAT starts the day received b	2		HCL: HC	
the lab, if received by 4:30pn			H ₂ S0 ₄ : H ₂	: H ₂ NaOH: Na
No Wet ice: Kes No			H ₃ PO ₄ : HP	: HP
Thermometer ID:	-	890-3165 Chain of Custody	NaHSO	NaHSO ₄ : NABIS
			Na ₂ S ₂ O	Na ₂ S ₂ O ₃ : NaSO ₃
9.8	S (EI		Zn Acet	Zn Acetate+NaOH: Zn
Corrected Temperature: 9.0)15)		NaOH+	NaOH+Ascorbic Acid: SAPC
Date Time Depth Grat	CHLOR		S	Sample Comments
10/6/2022 9:05 0.5' G	1 x x		Incident ID:	nt ID:
				nAPP2223831434
			Cost Center:	Center:
/				1067691001
/	8		AFE:	
	1			
8RCRA 13PPM Texas 1 TCLP / SPLP 6010: 8	11 Al Sb As Ba Be RCRA Sb As Ba Be	B Cd Ca Cr Co Cu Fe Pb Mg M Cd Cr Co Cu Pb Mn Mo Ni Se	TIU Hg: 1631/245.	11 Sn U V Zn 1 / 7470 / 7471
onstitutes a valid purchase order fractions and shall not assume any responsion for the project and a charge of \$5 for each project and a charge of \$5 for each	om client company to Eurofin: bility for any losses or expens	x Xenco, its affiliates and subcontractors. It assignes incurred by the client if such losses are due to ins Xenco, but not analyzed. These terms will be expressions.	gns standard terms and conditions to circumstances beyond the control enforced unless previously negotiated.	
ved by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
8	10.1.22 130	0 2		
Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Da
	TAT starts the day received by the lab, if received by 4:30pm	TAT starts the day received by 4:30pm wet loe: Kes No ter ID: NAN, 00-4 Factor: Q. Q. Brender Grab # of Comp Cont Cont Cont Cont Cont Cont Cont Cont	The lab, if received by 4:30pm Wet Ice: Kes No No A Temperature: Q. 6 Sampled Depth Comp Cont CH Ph BTE Sampled Sampled Sample submitted to Euroffins Xenco, but not analyzed. These terms will be project and a charge of \$5 for each sample submitted to Euroffins Xenco, but not analyzed. These terms will be comparature. Date/Time Depth Comp Cont CH Ph Mg TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni St As Ba Be Cd Cr Co Cu Pb Mn Mo Ni St Comp Cont Charles and shall not assume any responsibility for any losses or expenses incurred by the client it such losses are due in the project and a charge of \$5 for each sample submitted to Euroffins Xenco, but not analyzed. These terms will be compared to Signature. Date/Time Relinquished by: (Signature)	Date: Date:

10/13/2022

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3165-1 SDG Number: 03E1558115

Login Number: 3165 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3165-1 SDG Number: 03E1558115

Login Number: 3165 **List Source: Eurofins Midland** List Number: 2

List Creation: 10/07/22 11:00 AM

Creator: Rodriguez, Leticia

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

<6mm (1/4").

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3166-1

Laboratory Sample Delivery Group: 03E1558115

Client Project/Site: Elk Wallow CDP

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

10/17/2022 11:27:56 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

EOL **Have a Question?**

------ LINKS ------

Review your project results through

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/3/2023 9:40:16 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: Elk Wallow CDP
Laboratory Job ID: 890-3166-1
SDG: 03E1558115

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Definitions/Glossary

Client: Ensolum Job ID: 890-3166-1 Project/Site: Elk Wallow CDP

SDG: 03E1558115

Qualifiers

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPI C/IC

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

Glossary

DLC

EDL

LOD

LOQ

MCL

MDA

MDC

MDL

MPN

MQL

NC

ND

NEG

ML

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
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

POS Positive / Present **Practical Quantitation Limit PQL**

Decision Level Concentration (Radiochemistry)

EPA recommended "Maximum Contaminant Level"

Minimum Detectable Concentration (Radiochemistry)

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

Minimum Detectable Activity (Radiochemistry)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE)

Method Detection Limit

Minimum Level (Dioxin)

Most Probable Number

Not Calculated

Negative / Absent

Method Quantitation Limit

Limit of Quantitation (DoD/DOE)

PRES Presumptive **Quality Control** QC

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: Elk Wallow CDP

Job ID: 890-3166-1

SDG: 03E1558115

Job ID: 890-3166-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3166-1

Receipt

The sample was received on 10/6/2022 1:00 PM. 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 9.6°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-3166-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36687 and analytical batch 880-36926 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-36395 and analytical batch 880-36488 contained Diesel Range Organics (Over C10-C28) 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.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36395 and analytical batch 880-36488 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36394 and analytical batch 880-36739 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Client Sample Results

Client: Ensolum Job ID: 890-3166-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SS04 Lab Sample ID: 890-3166-1 Date Collected: 10/06/22 09:00

Matrix: Solid

Sample Depth: 0.5

Date Received: 10/06/22 13:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/11/22 14:39	10/15/22 05:21	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/11/22 14:39	10/15/22 05:21	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		10/11/22 14:39	10/15/22 05:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/11/22 14:39	10/15/22 05:21	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		10/11/22 14:39	10/15/22 05:21	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/11/22 14:39	10/15/22 05:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			10/11/22 14:39	10/15/22 05:21	1
1,4-Difluorobenzene (Surr)	99		70 - 130			10/11/22 14:39	10/15/22 05:21	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/17/22 10:10	1
Method: SW846 8015 NM - Diese		ics (DRO) (GC)			Danasad		Dil F.
Analyte	Result	ics (DRO) (GC)	Unit	<u>D</u>	Prepared	Analyzed	
Analyte		ics (DRO) (GC)		<u>D</u>	Prepared		
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese	Result < 50.0	ics (DRO) (Qualifier	RL 50.0	Unit	<u>D</u>	Prepared	Analyzed	
Analyte Total TPH Method: SW846 8015B NM - Die	Result <50.0 sel Range Organia	ics (DRO) (Qualifier	RL 50.0	Unit	<u>D</u>	Prepared Prepared	Analyzed	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <50.0 sel Range Organia	Qualifier Unics (DRO) Qualifier	RL 50.0	Unit mg/Kg			Analyzed 10/11/22 09:32	Dil Fac
Analyte Total TPH	Result <50.0 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U u U U U U U U U U U U U U U U U U U	GC) RL 50.0 (GC) RL	Unit mg/Kg		Prepared	Analyzed 10/11/22 09:32 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0 sel Range Orga Result <50.0	cics (DRO) (Control of the property of the pro	(GC) RL 50.0 RL 50.0	Unit mg/Kg Unit mg/Kg		Prepared 10/07/22 15:16	Analyzed 10/11/22 09:32 Analyzed 10/10/22 15:33	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	cics (DRO) (Control of the property of the pro	GC) RL 50.0 (GC) RL 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 10/07/22 15:16 10/07/22 15:16	Analyzed 10/11/22 09:32 Analyzed 10/10/22 15:33 10/10/22 15:33	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <50.0	cics (DRO) (Control of the property of the pro	GC) RL 50.0 (GC) RL 50.0 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16	Analyzed 10/11/22 09:32 Analyzed 10/10/22 15:33 10/10/22 15:33	Dil Face
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0	cics (DRO) (Control of the property of the pro	GC) RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared	Analyzed 10/11/22 09:32 Analyzed 10/10/22 15:33 10/10/22 15:33 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	ics (DRO) ((Qualifier U)) nics (DRO) Qualifier U U Qualifier	GC) RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared 10/07/22 15:16	Analyzed 10/11/22 09:32 Analyzed 10/10/22 15:33 10/10/22 15:33 Analyzed 10/10/22 15:33	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	ics (DRO) ((Qualifier U)) nics (DRO) Qualifier U U Qualifier	GC) RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared 10/07/22 15:16	Analyzed 10/11/22 09:32 Analyzed 10/10/22 15:33 10/10/22 15:33 Analyzed 10/10/22 15:33	Dil Fac

Surrogate Summary

Client: Ensolum Job ID: 890-3166-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-3151-A-21-G MS	Matrix Spike	109	86	
390-3151-A-21-H MSD	Matrix Spike Duplicate	97	108	
390-3166-1	SS04	101	99	
CS 880-36687/1-A	Lab Control Sample	108	109	
CSD 880-36687/2-A	Lab Control Sample Dup	110	99	
MB 880-36687/5-A	Method Blank	86	96	
MB 880-36926/8	Method Blank	85	98	

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

OTPH = o-Terphenyl

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		1CO1	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
0-3155-A-1-C MS	Matrix Spike	82	78	
90-3155-A-1-D MSD	Matrix Spike Duplicate	82	78	
90-3166-1	SS04	96	98	
CS 880-36395/2-A	Lab Control Sample	107	117	
SD 880-36395/3-A	Lab Control Sample Dup	106	113	
1B 880-36395/1-A	Method Blank	112	121	
Surrogate Legend				
1CO = 1-Chlorooctane				

Eurofins Carlsbad

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Client: Ensolum Project/Site: Elk Wallow CDP

Job ID: 890-3166-1 SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36687/5-A

Matrix: Solid

Analysis Batch: 36926

Lab Sample ID: LCS 880-36687/1-A

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36687

ı		MB	MR						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:39	10/14/22 21:49	1
	Toluene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:39	10/14/22 21:49	1
	Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:39	10/14/22 21:49	1
I	m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/11/22 14:39	10/14/22 21:49	1
I	o-Xylene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:39	10/14/22 21:49	1
	Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/11/22 14:39	10/14/22 21:49	1
ı									

MB MB

MD MD

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	10/11/22 14:39	10/14/22 21:49	1
1,4-Difluorobenzene (Surr)	96		70 - 130	10/11/22 14:39	10/14/22 21:49	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36687

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1156 mg/Kg 116 70 - 130 Toluene 0.100 0.1061 mg/Kg 106 70 - 130 0.100 0.1095 Ethylbenzene mg/Kg 109 70 - 130 0.200 0.2219 111 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.1093 70 - 130 o-Xylene mg/Kg 109

LCS LCS

Surrogate	%Recovery Q	ualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-36687/2-A **Client Sample ID: Lab Control Sample Dup**

Matrix: Solid

Matrix: Solid

Analysis Batch: 36926

Analysis Batch: 36926

Prep Type: Total/NA Prep Batch: 36687

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1073		mg/Kg		107	70 - 130	7	35
Toluene	0.100	0.09933		mg/Kg		99	70 - 130	7	35
Ethylbenzene	0.100	0.1022		mg/Kg		102	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.2179		mg/Kg		109	70 - 130	2	35
o-Xylene	0.100	0.1081		mg/Kg		108	70 - 130	1	35

LCSD LCSD

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

Lab Sample ID: 890-3151-A-21-G MS

Matrix: Solid

Analysis Batch: 36926

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

Prep Batch: 36687

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U F2 F1	0.101	0.05102	F1	mg/Kg	_	51	70 - 130	
Toluene	<0.00202	U F1	0.101	0.05844	F1	mg/Kg		58	70 - 130	

QC Sample Results

Job ID: 890-3166-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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

Lab Sample ID: 890-3151-A-21-G MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid Analysis Batch: 36926

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits D Ethylbenzene <0.00202 U F1 0.101 0.06664 F1 66 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00403 U F1 0.201 0.1336 F1 mg/Kg 66 70 - 130 o-Xylene <0.00202 U F1 0.101 0.06708 F1 67 70 - 130 mg/Kg

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: 890-3151-A-21-H MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 36926

Prep Type: Total/NA

Prep Batch: 36687

Prep Batch: 36687

RPD

Sample Sample Spike MSD MSD Result Qualifier RPD Limit Analyte Added Result Qualifier Unit %Rec Limits D 0.0990 Benzene <0.00202 U F2 F1 0.08190 F2 mg/Kg 83 70 - 130 46 35 Toluene <0.00202 UF1 0.0990 0.07289 mg/Kg 74 70 - 130 22 35 Ethylbenzene <0.00202 U F1 0.0990 0.07137 72 70 - 130 7 35 mg/Kg 0.198 m-Xylene & p-Xylene < 0.00403 UF1 0.1444 mg/Kg 73 70 - 130 8 35 0.0990 <0.00202 U F1 0.07130 72 70 - 130 35 o-Xylene mg/Kg 6

MSD MSD

MB MB Result Qualifier

<0.00400 U

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	97	70 - 130
1,4-Difluorobenzene (Surr)	108	70 - 130

Lab Sample ID: MB 880-36926/8 Client Sample ID: Method Blank

RL

Matrix: Solid

Analyte

Xylenes, Total

Analysis Batch: 36926

Prep Type: Total/NA

mg/Kg

D

Analyzed

10/14/22 11:01

Unit Dil Fac Prepared Benzene <0.00200 U 0.00200 mg/Kg 10/14/22 11:01 Toluene <0.00200 U 0.00200 mg/Kg 10/14/22 11:01 Ethylbenzene <0.00200 U 0.00200 mg/Kg 10/14/22 11:01 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 10/14/22 11:01 0.00200 10/14/22 11:01 o-Xylene <0.00200 U mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	_		10/14/22 11:01	1
1,4-Difluorobenzene (Surr)	98		70 - 130			10/14/22 11:01	1

0.00400

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

Lab Sample ID: MB 880-36395/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 36488

MB MB Analyte Result Qualifier RL Unit Prepared <50.0 U 50.0 mg/Kg 10/07/22 15:16 10/10/22 10:59 Gasoline Range Organics

(GRO)-C6-C10

Eurofins Carlsbad

Prep Batch: 36395

Client: Ensolum Job ID: 890-3166-1 SDG: 03E1558115 Project/Site: Elk Wallow CDP

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

Lab Sample ID: MB 880-36395/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 36395 Analysis Batch: 36488

MB	MB						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1
<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1
МВ	MB						
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
112		70 - 130			10/07/22 15:16	10/10/22 10:59	1
121		70 - 130			10/07/22 15:16	10/10/22 10:59	1
	Result		Result Qualifier RL	Result Qualifier RL Unit <50.0	Result Qualifier RL Unit D mg/Kg	Result Qualifier RL State of the control	Result Qualifier RL (10.7) Unit (10.7) D (10.7) Prepared (10.7) Analyzed (10.7) <50.0 U

Lab Sample ID: LCS 880-36395/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36488 Prep Batch: 36395 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 996.9 100 70 - 130 mg/Kg (GRO)-C6-C10 1000 946.9 Diesel Range Organics (Over mg/Kg 95 70 - 130 C10-C28) LCS LCS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 107 o-Terphenyl 117 70 - 130

Lab Sample ID: LCSD 880-36395/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 36488** Prep Batch: 36395 Chiles LCCD LCCD

		Бріке	FC2D	LCSD				%Rec		RPD	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics		1000	1023		mg/Kg		102	70 - 130	3	20	
(GRO)-C6-C10											
Diesel Range Organics (Over		1000	992.6		mg/Kg		99	70 - 130	5	20	
C10-C28)											
	ICSD ICSD										

	LCSD	LUSD	שפ		
Surrogate	%Recovery	Qualifier	Limits		
1-Chlorooctane	106		70 - 130		
o-Terphenyl	113		70 - 130		

Lab Sample ID: 890-3155-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 36488** Prep Batch: 36395

	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	<50.0	U	998	983.4		mg/Kg		96	70 - 130
(GRO)-C6-C10 Diesel Range Organics (Over	<50.0	U F1	998	671.0	F1	mg/Kg		66	70 - 130
C10-C28)									

C10-C28)			
	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	78		70 - 130

QC Sample Results

Job ID: 890-3166-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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

Lab Sample ID: 890-3155-A-1-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 36488

Prep Batch: 36395 Sample Sample MSD MSD RPD Spike Result Qualifier Analyte Added Result Qualifier %Rec Limits RPD Limit Unit D Gasoline Range Organics <50.0 U 999 1010 mg/Kg 99 70 - 130 3 20 (GRO)-C6-C10 999 67 Diesel Range Organics (Over <50.0 U F1 687.0 F1 mg/Kg 70 - 1302 20

C10-C28)

MSD MSD %Recovery Limits Surrogate Qualifier 70 - 130 1-Chlorooctane 82 o-Terphenyl 78 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36394/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36739

MB MB

Result Qualifier RL Unit Analyte D Prepared Analyzed Dil Fac Chloride <5.00 5.00 mg/Kg 10/11/22 20:54 U

Lab Sample ID: LCS 880-36394/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36739

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 90 - 110 258.9 mg/Kg 104

Lab Sample ID: LCSD 880-36394/3-A

Matrix: Solid

Analysis Batch: 36739

LCSD LCSD RPD Spike %Rec Analyte Added Qualifier Unit %Rec RPD Result Limits Limit Chloride 250 269.0 108 90 - 110 mg/Kg

Lab Sample ID: 890-3163-A-7-C MS

Matrix: Solid

Analysis Batch: 36739

Sample Sample Spike MS MS %Rec Qualifier Added Qualifier Analyte Result Result %Rec Limits Unit Chloride F1 249 100 90 - 110 241 489.4 mg/Kg

Lab Sample ID: 890-3163-A-7-D MSD

Matrix: Solid

Analysis Batch: 36739

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Result Qualifier %Rec Limits RPD Limit Analyte Unit D 241 F1 249 Chloride 520.0 F1 112 90 - 110 20 mg/Kg 6

Eurofins Carlsbad

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: Matrix Spike

QC Association Summary

Client: Ensolum Job ID: 890-3166-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

GC VOA

Prep Batch: 36687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3166-1	SS04	Total/NA	Solid	5035	
MB 880-36687/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36687/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36687/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3151-A-21-G MS	Matrix Spike	Total/NA	Solid	5035	
890-3151-A-21-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3166-1	SS04	Total/NA	Solid	8021B	36687
MB 880-36687/5-A	Method Blank	Total/NA	Solid	8021B	36687
MB 880-36926/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-36687/1-A	Lab Control Sample	Total/NA	Solid	8021B	36687
LCSD 880-36687/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36687
890-3151-A-21-G MS	Matrix Spike	Total/NA	Solid	8021B	36687
890-3151-A-21-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36687

Analysis Batch: 37119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3166-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 36395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3166-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3166-1	SS04	Total/NA	Solid	8015B NM	36395
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015B NM	36395
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36395
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36395
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36395
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36395

Analysis Batch: 36654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3166-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36394

Γ				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
890-3166-1	SS04	Soluble	Solid	DI Leach
MB 880-36394/1-A	Method Blank	Soluble	Solid	DI Leach
LCS 880-36394/2-A	Lab Control Sample	Soluble	Solid	DI Leach

Eurofins Carlsbad

Page 11 of 19

QC Association Summary

Client: Ensolum Job ID: 890-3166-1 Project/Site: Elk Wallow CDP

SDG: 03E1558115

HPLC/IC (Continued)

Leach Batch: 36394 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-36394/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3163-A-7-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3163-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3166-1	SS04	Soluble	Solid	300.0	36394
MB 880-36394/1-A	Method Blank	Soluble	Solid	300.0	36394
LCS 880-36394/2-A	Lab Control Sample	Soluble	Solid	300.0	36394
LCSD 880-36394/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36394
890-3163-A-7-C MS	Matrix Spike	Soluble	Solid	300.0	36394
890-3163-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36394

Date Received: 10/06/22 13:00

Lab Chronicle

Client: Ensolum Job ID: 890-3166-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SS04 Lab Sample ID: 890-3166-1 Date Collected: 10/06/22 09:00

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	36687	10/11/22 14:39	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36926	10/15/22 05:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37119	10/17/22 10:10	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36654	10/11/22 09:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36395	10/07/22 15:16	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36488	10/10/22 15:33	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36394	10/07/22 15:14	CH	EET MID
Soluble	Analysis	300.0		1			36739	10/11/22 23:21	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3166-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Laboratory: Eurofins Midland

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

Authority	Pi	rogram	Identification Number	Expiration Date
Texas	N	ELAP	T104704400-22-24	06-30-23
The following analytes the agency does not of		ut the laboratory is not certifi	ied by the governing authority. This list ma	ay include analytes for whi
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	
Total BTEX		Solid	Total BTEX	

Method Summary

Job ID: 890-3166-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

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: Elk Wallow CDP

Job ID: 890-3166-1

SDG: 03E1558115

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3166-1	SS04	Solid	10/06/22 09:00	10/06/22 13:00	0.5

Relinquished by: (81gr)ature)

10.6.22 13002

eurofins:

Xenco

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

Company Name: Bill to: (if different)

Address:

Project Manager:

Tacoma Morrissey

Company Name:

Ensolum

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:	
www.xenco.com Pageof	
comments	
rogram: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	erfund 🗌
itate of Project:	
teporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	evel IV
peliverables: EDD ☐ ADaPT ☐ Other:	
EST Preservative Codes	odes

Relinquished by: (Signature)	Votice: Signature of this docur of service. Eurofins Xenco will of Eurofins Xenco. A minimum	Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010									SS04	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: 303
	nent and relinquishment of samples on the liable only for the cost of samples charge of \$85.00 will be applied to expense.	etal(s) to be analyzed	200.8 / 6020:									S 10/6/2022	ation Matrix Sampled	Corrected	Yes No NIA Temperat	Yes No MA Correction Factor:	Yes No Thermometer ID:	Tomap Blank: Kes No	5	Kase Parker	32.14551,-103.96291	03E1558115	Elk Wallow CDP	303-887-2946
Received by: (Signature)	constitutes a valld purcha s and shall not assume a ach project and a charge	TCLP / SPLP	8RCRA 13PPM Texas 11 Al Sb As Ba Be					-/	/			22 9:00 0.5	Time Depth	Corrected Temperature: C	Temperature Reading:		1	Wet Ice:	the lab, if received by 4:30pm	TAT starts the day received by	Due Date:	☑ Routine □	Turn Around	Email: Gar
	ase order from client c ny responsibility for a of \$5 for each sample	TCLP / SPLP 6010: BRCRA	Texas 11 Al S				/:					5' G 1	pth Grab/ # of Comp Cont	9-6	9.8		AMOST arar	No nete	L	received by		Rush Code		Email: Garret.Green@ExxonMobil.com
Date/Time	ompany to Eurofins ny losses or expens submitted to Eurofi	Sb As Ba Be	Sb As Ba Be			1						×	CHLOR TPH (8 BTEX (015)		PA:	300	.0)						nMobil.com
Relinquished 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.	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni	B Cd Ca Cr Co Cu Fe Pb N												890-3166 Chain								ANALYSIS REQL	
e) Received by: (Signature)	assigns standard terms and conditions due to circumstances beyond the contro libe to circumstances previously negotia	Ni Se Ag TI U Hg: 1631	Mg Mn Mo Ni K Se Ag SiO2	7										_	of Custody					_			QUEST	Convergence:
nature) Date/Time	ol Nedd.	31 / 245.1 / 7470 / 7471	Ag SiO ₂ Na Sr Tl Sn U V Zn					AFE:	1067691001	Cost Center:	nAPP2223831434	Incident ID:	Sample Comments	NaCH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	Na ₂ S ₂ O ₃ : NaSO ₃	NaHSO4: NABIS	H ₃ PO ₄ : HP	H ₂ SO ₄ : H ₂ NaOH: Na		<u>~</u>	None: NO DI Water: H ₂ O	Preservative Codes	Cart.
					10				<u>.</u>	I	1	.)	Pag	Je 1	17	of	19						J	JL

Revised Date: 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3166-1 SDG Number: 03E1558115

Login Number: 3166 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3166-1 SDG Number: 03E1558115

List Source: Eurofins Midland

Login Number: 3166

List Number: 2 List Creation: 10/07/22 11:00 AM Creator: Rodriguez, Leticia Question

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

<6mm (1/4").

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3167-1

Laboratory Sample Delivery Group: 03E1558115

Client Project/Site: Elk Wallow CDP

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

JURAMER

Authorized for release by: 10/13/2022 11:09:44 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Review your project results through

------ LINKS ------

Have a Question?



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 2/3/2023 9:40:16 AM

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

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

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Client: Ensolum
Project/Site: Elk Wallow CDP
Laboratory Job ID: 890-3167-1
SDG: 03E1558115

Table of Contents

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Definitions/Glossary

Job ID: 890-3167-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier Description	Qualifier	Qualifier Description
-----------------------	-----------	-----------------------

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

HPLC/IC

Qualifier **Qualifier Description**

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

Glossary

Abbreviation	These commonly	used abbreviations may	or may	not he	nresent in this report
ADDIEVIALIOII	These common	useu abbi eviations ma	y Oi illay	IIOL DE	present in this report.

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

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

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

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

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

MDL Method Detection Limit Minimum Level (Dioxin) ML 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)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: Elk Wallow CDP

Job ID: 890-3167-1

SDG: 03E1558115

Job ID: 890-3167-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3167-1

Receipt

The sample was received on 10/6/2022 1:00 PM. 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 9.6°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS03 (890-3167-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-36395 and analytical batch 880-36488 contained Diesel Range Organics (Over C10-C28) 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.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36395 and analytical batch 880-36488 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36394 and analytical batch 880-36739 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Matrix: Solid

Lab Sample ID: 890-3167-1

Client Sample Results

Client: Ensolum Job ID: 890-3167-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SS03

Date Collected: 10/06/22 08:55 Date Received: 10/06/22 13:00

Sample Depth: 0.5

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 16:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 16:52	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 16:52	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/11/22 14:31	10/12/22 16:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 16:52	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/11/22 14:31	10/12/22 16:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130			10/11/22 14:31	10/12/22 16:52	1
1,4-Difluorobenzene (Surr)	71		70 - 130			10/11/22 14:31	10/12/22 16:52	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/13/22 11:54	1
-								
Method: SW846 8015 NM - Dies	el Range Organ	ics (DRO) (GC)					
Method: SW846 8015 NM - Dies Analyte		ics (DRO) (Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 10/11/22 09:32	Dil Fac
Analyte	Result <50.0	Qualifier U	RL 50.0		<u>D</u>	Prepared		Dil Fac
Analyte Total TPH	Result <50.0 sel Range Orga	Qualifier U	RL 50.0		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	Result <50.0 sel Range Orga	Qualifier U unics (DRO) Qualifier	RL 50.0	mg/Kg	=	<u> </u>	10/11/22 09:32	1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 seel Range Orga	Qualifier U unics (DRO) Qualifier U	RL 50.0 (GC)	mg/Kg	=	Prepared	10/11/22 09:32 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10	Result <50.0 See Range Orga Result <50.0	Qualifier U unics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0	mg/Kg Unit mg/Kg	=	Prepared 10/07/22 15:16	10/11/22 09:32 Analyzed 10/10/22 15:53	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U unics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/07/22 15:16 10/07/22 15:16	10/11/22 09:32 Analyzed 10/10/22 15:53 10/10/22 15:53	1 Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U unics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16	Analyzed 10/10/22 15:53 10/10/22 15:53	1 Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <50.0	Qualifier U unics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared	Analyzed 10/10/22 15:53 10/10/22 15:53 Analyzed	Dil Fac 1 1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <50.0	Qualifier U Inics (DRO) Qualifier U U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared 10/07/22 15:16	Analyzed 10/10/22 15:53 10/10/22 15:53 10/10/22 15:53 Analyzed 10/10/22 15:53	1 Dil Fac 1 Dil Fac 1

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16.5

mg/Kg

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10/11/22 23:26

Surrogate Summary

Client: Ensolum Job ID: 890-3167-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

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)	
880-20176-A-12-C MS	Matrix Spike	89	90	
880-20176-A-12-D MSD	Matrix Spike Duplicate	85	89	
890-3167-1	SS03	129	71	
LCS 880-36686/1-A	Lab Control Sample	84	90	
LCSD 880-36686/2-A	Lab Control Sample Dup	90	90	
MB 880-36686/5-A	Method Blank	103	84	
Surrogate Legend				
BFB = 4-Bromofluorobenzen	e (Surr)			
DFBZ = 1,4-Difluorobenzene	e (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)	
890-3155-A-1-C MS	Matrix Spike	82	78	
890-3155-A-1-D MSD	Matrix Spike Duplicate	82	78	
890-3167-1	SS03	91	92	
LCS 880-36395/2-A	Lab Control Sample	107	117	
LCSD 880-36395/3-A	Lab Control Sample Dup	106	113	
MB 880-36395/1-A	Method Blank	112	121	
Surrogate Legend				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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QC Sample Results

Client: Ensolum Job ID: 890-3167-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36686/5-A

Matrix: Solid

Analysis Batch: 36715

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36686

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 11:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 11:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 11:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/11/22 14:31	10/12/22 11:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 11:01	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/11/22 14:31	10/12/22 11:01	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	10/11/22 14:31	10/12/22 11:01	1
1,4-Difluorobenzene (Surr)	84		70 - 130	10/11/22 14:31	10/12/22 11:01	1

Lab Sample ID: LCS 880-36686/1-A

Matrix: Solid

Analysis Batch: 36715

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36686

ı		Spike	LCS	LCS				%Rec	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Benzene	0.100	0.1008		mg/Kg		101	70 - 130	
	Toluene	0.100	0.1020		mg/Kg		102	70 - 130	
	Ethylbenzene	0.100	0.09606		mg/Kg		96	70 - 130	
ĺ	m-Xylene & p-Xylene	0.200	0.1983		mg/Kg		99	70 - 130	
	o-Xylene	0.100	0.09918		mg/Kg		99	70 - 130	
ı									

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: LCSD 880-36686/2-A

Matrix: Solid

Analysis Batch: 36715

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36686

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Limit Benzene 0.100 0.1024 mg/Kg 102 70 - 130 2 35 Toluene 0.100 0.1064 mg/Kg 106 70 - 130 4 35 Ethylbenzene 0.100 0.09847 mg/Kg 98 70 - 130 2 35 0.200 m-Xylene & p-Xylene 0.2051 mg/Kg 103 70 - 130 3 35 0.100 0.1011 o-Xylene mg/Kg 101 70 - 130 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1.4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-20176-A-12-C MS

Matrix: Solid

Analysis Batch: 36715

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

Prep Batch: 36686

MS MS Sample Sample Spike Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits <0.00201 U 0.0998 Benzene 0.1018 mg/Kg 102 70 - 130 Toluene <0.00201 U 0.0998 0.1041 mg/Kg 104 70 - 130

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QC Sample Results

Job ID: 890-3167-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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

Lab Sample ID: 880-20176-A-12-C MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 36715

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U	0.0998	0.09844		mg/Kg		99	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2047		mg/Kg		103	70 - 130	
o-Xylene	<0.00201	U	0.0998	0.1010		mg/Kg		101	70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-20176-A-12-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 36715

Prep Type: Total/NA

Prep Batch: 36686

Prep Batch: 36686

Sample Sample Spike MSD MSD RPD Result Qualifier %Rec RPD Limit Analyte babbA Result Qualifier Limits Unit Benzene <0.00201 U 0.0996 0.09470 mg/Kg 95 70 - 130 7 35 Toluene <0.00201 U 0.0996 0.09624 mg/Kg 97 70 - 130 8 35 Ethylbenzene <0.00201 0.0996 0.09061 91 70 - 130 35 U mg/Kg 8 0.199 m-Xylene & p-Xylene <0.00402 U 0.1862 mg/Kg 93 70 - 130 9 35 <0.00201 U 0.0996 0.09149 92 70 - 130 o-Xylene mg/Kg 10

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

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

Lab Sample ID: MB 880-36395/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 36395

Analysis Batch: 36488

мв мв Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte 50.0 10/07/22 15:16 10/10/22 10:59 <50.0 U Gasoline Range Organics mg/Kg (GRO)-C6-C10 10/07/22 15:16 10/10/22 10:59 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 10/07/22 15:16 10/10/22 10:59 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	10/07/22 15:16	10/10/22 10:59	1
o-Terphenyl	121		70 - 130	10/07/22 15:16	10/10/22 10:59	1

Lab Sample ID: LCS 880-36395/2-A Client Sample ID: Lab Control Sample

Matrix: Solid Analysis Batch: 36488

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit %Rec Limits 1000 100 70 - 130 996.9 Gasoline Range Organics mg/Kg

C10-C28)

(GRO)-C6-C10 Diesel Range Organics (Over 1000 946.9 mg/Kg 95 70 - 130

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Prep Type: Total/NA

Prep Batch: 36395

Lab Sample ID: LCSD 880-36395/3-A

Lab Sample ID: 890-3155-A-1-C MS

Job ID: 890-3167-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

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

Lab Sample ID: LCS 880-36395/2-A Client Sample ID: Lab Control Sample

Matrix: Solid

Matrix: Solid

Analysis Batch: 36488

Prep Type: Total/NA Prep Batch: 36395

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 107 70 - 130 o-Terphenyl 117 70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36395

Analysis Batch: 36488 Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 1023 102 70 - 1303 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 992.6 99 mg/Kg 70 - 1305 20

C10-C28)

Matrix: Solid

Analysis Batch: 36488

LCSD LCSD

Surrogate %Recovery Qualifier Limits 106 70 - 130 1-Chlorooctane 113 70 - 130 o-Terphenyl

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36395

Sample Sample MS MS Spike Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <50.0 U 998 983.4 mg/Kg 96 70 - 130 (GRO)-C6-C10 <50.0 U F1 Diesel Range Organics (Over 998 671.0 F1 mg/Kg 66 70 - 130 C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 82 o-Terphenyl 78 70 - 130

Lab Sample ID: 890-3155-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 36488

Prep Type: Total/NA

Prep Batch: 36395

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <50.0 U 999 1010 99 70 - 130 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U F1 999 687.0 F1 mg/Kg 67 70 - 130 20 C10-C28)

MSD MSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	82	70 - 130
o-Terphenyl	78	70 - 130

Job ID: 890-3167-1

SDG: 03E1558115

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36394/1-A

Matrix: Solid

Lab Sample ID: LCS 880-36394/2-A

Client Sample ID: Method Blank

Prep Type: Soluble

Analysis Batch: 36739

Project/Site: Elk Wallow CDP

Client: Ensolum

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Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 10/11/22 20:54

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Matrix: Solid

Analysis Batch: 36739

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 258.9 mg/Kg 104 90 - 110

Lab Sample ID: LCSD 880-36394/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid**

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Prep Type: Soluble

Analysis Batch: 36739

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 269.0 mg/Kg 108 90 - 110

Lab Sample ID: 890-3163-A-7-C MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36739

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added %Rec Result Qualifier Unit Limits Chloride 241 F1 249 489.4 100 90 - 110 mg/Kg

Lab Sample ID: 890-3163-A-7-D MSD

Matrix: Solid

Analysis Batch: 36739

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 241 F1 249 520.0 F1 Chloride mg/Kg 112 90 - 110 6 20

QC Association Summary

Client: Ensolum Job ID: 890-3167-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

GC VOA

Prep Batch: 36686

Lab Sample ID 890-3167-1	Client Sample ID SS03	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
MB 880-36686/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36686/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36686/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20176-A-12-C MS	Matrix Spike	Total/NA	Solid	5035	
880-20176-A-12-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3167-1	SS03	Total/NA	Solid	8021B	36686
MB 880-36686/5-A	Method Blank	Total/NA	Solid	8021B	36686
LCS 880-36686/1-A	Lab Control Sample	Total/NA	Solid	8021B	36686
LCSD 880-36686/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36686
880-20176-A-12-C MS	Matrix Spike	Total/NA	Solid	8021B	36686
880-20176-A-12-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36686

Analysis Batch: 36879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3167-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 36395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3167-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3167-1	SS03	Total/NA	Solid	8015B NM	36395
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015B NM	36395
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36395
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36395
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36395
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36395

Analysis Batch: 36655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3167-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3167-1	SS03	Soluble	Solid	DI Leach	
MB 880-36394/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36394/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36394/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Elk Wallow CDP
Job ID: 890-3167-1
SDG: 03E1558115

HPLC/IC (Continued)

Leach Batch: 36394 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3163-A-7-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3163-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3167-1	SS03	Soluble	Solid	300.0	36394
MB 880-36394/1-A	Method Blank	Soluble	Solid	300.0	36394
LCS 880-36394/2-A	Lab Control Sample	Soluble	Solid	300.0	36394
LCSD 880-36394/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36394
890-3163-A-7-C MS	Matrix Spike	Soluble	Solid	300.0	36394
890-3163-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36394

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Date Received: 10/06/22 13:00

Lab Chronicle

Client: Ensolum Job ID: 890-3167-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SS03 Lab Sample ID: 890-3167-1 Date Collected: 10/06/22 08:55

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36686	10/11/22 14:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36715	10/12/22 16:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36879	10/13/22 11:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			36655	10/11/22 09:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36395	10/07/22 15:16	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36488	10/10/22 15:53	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	36394	10/07/22 15:14	СН	EET MID
Soluble	Analysis	300.0		1			36739	10/11/22 23:26	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Elk Wallow CDP
Job ID: 890-3167-1
SDG: 03E1558115

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date	
Texas	NE	ELAP	T104704400-22-24	06-30-23	
The following analytes	are included in this report, bu	it the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes for w	
the agency does not of	• '	,	od by the governing datherty. The list his	ay molade analytes for w	
the agency does not of Analysis Method	• '	Matrix	Analyte	ay morade analytes for w	
9 ,	fer certification.	•	, , ,		

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Method Summary

Job ID: 890-3167-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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: Elk Wallow CDP

Job ID: 890-3167-1

SDG: 03E1558115

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3167-1	SS03	Solid	10/06/22 08:55	10/06/22 13:00	0.5

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins .

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 cilent if such losses are due to circumstances beyond the control Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

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

Total 200.7 / 6010

200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be

TCLP / SPLP 6010: 8RCRA Sb As Ba Be

Relinquisped by: (Signature)

Received by: (Signature)

10.10-931901

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020

Project Manager: Company Name: eurofins Ensolum 3122 National Parks Hwy Tacoma Morrissey Xenco **Environment Testing** Bill to: (if different) Company Name: Address: 3104 E. Green St XTO Energy Garret Green

Chain of Custody

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

Work Order No:

ANALYSIS REQUEST ANALYSIS REQUEST	Work Order Comments Work Order Comments Program: UST/PST PRP Brownfields RRC Superfund State of Project: Reporting: Level III PST/UST TRRP Level IV Deliverables: EDD ADaPT Other: Preservative Codes None: NO DI Water: H ₂ O
ANALYSIS REQUEST	iervativ
890-3167 Chain of Custody	H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC
	Incident ID: nAPP2223831434
	Cost Center: 1067691001 AFE:
3 Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 163	Se Ag SiO ₂ Na Sr Ti Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471

SAMPLE RECEIPT

Samples Received Intact:

(Yes) Temp Blank:

No

Wet Ice:

R

Parameters

N 3001

Cooler Custody Seals:

Yes

8

Yes No

(X 3

Temperature Reading: Correction Factor: Thermometer ID: No No

Corrected Temperature:

9.6

٥

CHLORIDES (EPA: 300.0)

otal Containers: ample Custody Seals:

Sample Identification SS03

Matrix

Date Sampled

Sampled

Depth

Comp

Cont # 0

Grab/

TPH (8015) BTEX (8021

ഗ

10/6/2022

8:55

0.5

G

Sampler's Name:

Project Location: Project Number:

32.14551,-103.96291

Due Date:

☑ Routine

Rush

Code

Turn Around

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

Kase Parker

Project Name:

Elk Wallow CDP 03E1558115

City, State ZIP:

303-887-2946 Carlsbad, NM 88220

Email: Garret.Green@ExxonMobil.com

City, State ZIP:

Carlsbad, NM 88;

10/13/2022

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3167-1 SDG Number: 03E1558115

Login Number: 3167 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3167-1 SDG Number: 03E1558115

List Source: Eurofine Midland

List Source: Eurofins Midland
List Number: 2
List Creation: 10/07/22 11:00 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	

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<6mm (1/4").



ANALYTICAL REPORT

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

Laboratory Job ID: 890-3168-1

Laboratory Sample Delivery Group: 03E1558115

Client Project/Site: Elk Wallow CDP

For:

eurofins 🔆

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

MRAMER

Authorized for release by: 10/17/2022 11:19:14 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

.....LINKS

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 2/3/2023 9:40:16 AM

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

Client: Ensolum
Project/Site: Elk Wallow CDP
Laboratory Job ID: 890-3168-1
SDG: 03E1558115

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Definitions/Glossary

Job ID: 890-3168-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

Qualifiers

GC VOA

Qualifier **Qualifier Description** F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

CFL Contains Free Liquid CFU Colony Forming Unit Contains No Free Liquid **CNF** Duplicate Error Ratio (normalized absolute difference) DER

Dilution Factor

Dil Fac

Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

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

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

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

NC Not Calculated

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

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

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

TNTC Too Numerous To Count

Released to Imaging: 2/3/2023 9:40:16 AM

Case Narrative

Client: Ensolum

Project/Site: Elk Wallow CDP

Job ID: 890-3168-1

SDG: 03E1558115

Job ID: 890-3168-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3168-1

Receipt

The samples were received on $10/6/2022\ 1:00\ PM$. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was $9.6^{\circ}C$

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-3168-1) and SS02 (890-3168-2).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36682 and analytical batch 880-36933 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-36395 and analytical batch 880-36488 contained Diesel Range Organics (Over C10-C28) 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.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36395 and analytical batch 880-36488 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36394 and analytical batch 880-36739 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Client: Ensolum Job ID: 890-3168-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SS01 Lab Sample ID: 890-3168-1

Date Collected: 10/06/22 08:45

Date Received: 10/06/22 13:00

Matrix: Solid

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.200	U	0.200	mg/Kg		10/11/22 13:34	10/15/22 15:15	100
Toluene	1.57		0.200	mg/Kg		10/11/22 13:34	10/15/22 15:15	100
Ethylbenzene	2.35		0.200	mg/Kg		10/11/22 13:34	10/15/22 15:15	100
m-Xylene & p-Xylene	5.40		0.399	mg/Kg		10/11/22 13:34	10/15/22 15:15	100
o-Xylene	4.34		0.200	mg/Kg		10/11/22 13:34	10/15/22 15:15	100
Xylenes, Total	9.74		0.399	mg/Kg		10/11/22 13:34	10/15/22 15:15	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130			10/11/22 13:34	10/15/22 15:15	100
1,4-Difluorobenzene (Surr)	86		70 - 130			10/11/22 13:34	10/15/22 15:15	100
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	13.7		0.399	mg/Kg			10/17/22 10:03	1
Analyte Total TPH		Qualifier	RL		D	Prepared		
-	18300		498	mg/Kg			Analyzed 10/11/22 09:32	Dil Fac
• •		nics (DRO)		mg/Kg				
: Method: SW846 8015B NM - Die	sel Range Orga	nics (DRO) Qualifier		mg/Kg		Prepared	10/11/22 09:32 Analyzed	
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	sel Range Orga		(GC)		<u>D</u>	Prepared 10/07/22 15:16	10/11/22 09:32	1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	sel Range Orga Result		(GC)	Unit	<u>D</u>		10/11/22 09:32 Analyzed	10 Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga Result 836		(GC) RL 498	<mark>Unit</mark> mg/Kg	<u>D</u>	10/07/22 15:16	10/11/22 09:32 Analyzed 10/10/22 16:42	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga Result 836	Qualifier	(GC) RL 498	Unit mg/Kg mg/Kg	<u>D</u>	10/07/22 15:16 10/07/22 15:16	10/11/22 09:32 Analyzed 10/10/22 16:42 10/10/22 16:42	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	sel Range Orga Result 836 10300 7180	Qualifier	(GC) RL 498 498 498	Unit mg/Kg mg/Kg	<u>D</u>	10/07/22 15:16 10/07/22 15:16 10/07/22 15:16	Analyzed 10/10/22 16:42 10/10/22 16:42 10/10/22 16:42	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	sel Range Orga Result 836 10300 7180 %Recovery	Qualifier	(GC) RL 498 498 498 Limits	Unit mg/Kg mg/Kg	<u>D</u>	10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared	Analyzed 10/10/22 16:42 10/10/22 16:42 10/10/22 16:42 Analyzed	Dil Fac 10 10 10 Dil Fac 10
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Sel Range Orga Result 836 10300 7180	Qualifier Qualifier	(GC) RL 498 498 498 Limits 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared 10/07/22 15:16	10/11/22 09:32 Analyzed 10/10/22 16:42 10/10/22 16:42 Analyzed 10/10/22 16:42	10 10 10 Dil Fac
Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result R	Qualifier Qualifier	(GC) RL 498 498 498 Limits 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared 10/07/22 15:16	10/11/22 09:32 Analyzed 10/10/22 16:42 10/10/22 16:42 Analyzed 10/10/22 16:42	Dil Fac 10 10 10 Dil Fac 10

Client Sample ID: SS02 Lab Sample ID: 890-3168-2

Date Collected: 10/06/22 08:50 Date Received: 10/06/22 13:00

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.202	U	0.202	mg/Kg		10/11/22 13:34	10/15/22 15:36	100
Toluene	<0.202	U	0.202	mg/Kg		10/11/22 13:34	10/15/22 15:36	100
Ethylbenzene	0.835		0.202	mg/Kg		10/11/22 13:34	10/15/22 15:36	100
m-Xylene & p-Xylene	2.32		0.404	mg/Kg		10/11/22 13:34	10/15/22 15:36	100
o-Xylene	1.45		0.202	mg/Kg		10/11/22 13:34	10/15/22 15:36	100
Xylenes, Total	3.77		0.404	mg/Kg		10/11/22 13:34	10/15/22 15:36	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			10/11/22 13:34	10/15/22 15:36	100

Eurofins Carlsbad

Matrix: Solid

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Client Sample Results

Client: Ensolum Job ID: 890-3168-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SS02 Lab Sample ID: 890-3168-2 Date Collected: 10/06/22 08:50

Matrix: Solid

Date Received: 10/06/22 13:00 Sample Depth: 0.5

Analyte

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103		70 - 130			10/11/22 13:34	10/15/22 15:36	100
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	4.61		0.404	mg/Kg			10/17/22 10:03	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	20300		499	mg/Kg			10/11/22 09:32	1
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte				Unit	D	Prepared	Analyzed	Dil Fac
	<499	U	499	mg/Kg		10/07/22 15:16	10/10/22 17:02	10
GRO)-C6-C10						10/07/22 15:16	10/10/22 17:02	10
(GRO)-C6-C10 Diesel Range Organics (Over	10900		499	mg/Kg		10/01/22 10:10		
GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	10900 9400		499 499	mg/Kg mg/Kg		10/07/22 15:16	10/10/22 17:02	10
GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	9400		499			10/07/22 15:16		
GRO)-C6-C10 Diesel Range Organics (Over C10-C28) DII Range Organics (Over C28-C36)	9400 %Recovery	Qualifier	499			10/07/22 15:16 Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	9400	Qualifier	499			10/07/22 15:16		

4.95

Unit

mg/Kg

D

Prepared

Analyzed

10/11/22 23:37

Result Qualifier

27.7

Dil Fac

Surrogate Summary

Client: Ensolum Job ID: 890-3168-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3168-1	SS01	75	86	
890-3168-2	SS02	94	103	
890-3175-A-1-G MS	Matrix Spike	99	111	
890-3175-A-1-H MSD	Matrix Spike Duplicate	98	102	
LCS 880-36682/1-A	Lab Control Sample	93	110	
LCSD 880-36682/2-A	Lab Control Sample Dup	92	110	
MB 880-36682/5-A	Method Blank	92	115	
MB 880-36886/5-A	Method Blank	90	110	

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		1CO1	OTPH1	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-3155-A-1-C MS	Matrix Spike	82	78	
390-3155-A-1-D MSD	Matrix Spike Duplicate	82	78	
390-3168-1	SS01	98	98	
390-3168-2	SS02	93	104	
_CS 880-36395/2-A	Lab Control Sample	107	117	
_CSD 880-36395/3-A	Lab Control Sample Dup	106	113	
MB 880-36395/1-A	Method Blank	112	121	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum Job ID: 890-3168-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36682/5-A

Matrix: Solid Analysis Batch: 36933 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36682

	MB	мв						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/11/22 13:34	10/15/22 12:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/11/22 13:34	10/15/22 12:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/11/22 13:34	10/15/22 12:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/11/22 13:34	10/15/22 12:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/11/22 13:34	10/15/22 12:03	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/11/22 13:34	10/15/22 12:03	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92	70 - 130	10/11/22 13:34	10/15/22 12:03	1
1,4-Difluorobenzene (Surr)	115	70 - 130	10/11/22 13:34	10/15/22 12:03	1

Lab Sample ID: LCS 880-36682/1-A

Matrix: Solid

Analysis Batch: 36933

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36682

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09689	-	mg/Kg		97	70 - 130	
Toluene	0.100	0.09359		mg/Kg		94	70 - 130	
Ethylbenzene	0.100	0.08062		mg/Kg		81	70 - 130	
m-Xylene & p-Xylene	0.200	0.1616		mg/Kg		81	70 - 130	
o-Xylene	0.100	0.08028		mg/Kg		80	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-36682/2-A

Matrix: Solid

Analysis Batch: 36933

Client Sample ID: Lab Control Sample Dup	Client Sam	ple ID: Lab	Control Sam	ple Dup
--	------------	-------------	--------------------	---------

Prep Type: Total/NA

Prep Batch: 36682

RPD LCSD LCSD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Limit Benzene 0.100 0.1005 mg/Kg 100 70 - 130 35 Toluene 0.100 0.09574 mg/Kg 96 70 - 130 2 35 Ethylbenzene 0.100 0.08266 mg/Kg 83 70 - 130 3 35 0.200 m-Xylene & p-Xylene 0.1659 mg/Kg 83 70 - 130 35 0.100 0.08312 70 - 130 o-Xylene mg/Kg 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1.4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-3175-A-1-G MS

Matrix: Solid

Analysis Batch: 36933

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36682

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U F1 F2	0.101	0.09405		mg/Kg		93	70 - 130	
Toluene	< 0.00202	U	0.101	0.09271		mg/Kg		92	70 - 130	

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QC Sample Results

Client: Ensolum Job ID: 890-3168-1 SDG: 03E1558115 Project/Site: Elk Wallow CDP

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

Lab Sample ID: 890-3175-A-1-G MS

Matrix: Solid

Analysis Batch: 36933

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36682

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00202	U F1	0.101	0.07908		mg/Kg		78	70 - 130	
m-Xylene & p-Xylene	<0.00403	U F1	0.202	0.1583		mg/Kg		78	70 - 130	
o-Xylene	<0.00202	U F1	0.101	0.07941		mg/Kg		78	70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36682

Matrix: Solid Analysis Batch: 36933

Lab Sample ID: 890-3175-A-1-H MSD

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U F1 F2	0.0994	0.06368	F1 F2	mg/Kg		64	70 - 130	39	35
Toluene	<0.00202	U	0.0994	0.06957		mg/Kg		70	70 - 130	29	35
Ethylbenzene	<0.00202	U F1	0.0994	0.06289	F1	mg/Kg		63	70 - 130	23	35
m-Xylene & p-Xylene	<0.00403	U F1	0.199	0.1285	F1	mg/Kg		65	70 - 130	21	35
o-Xylene	<0.00202	U F1	0.0994	0.06546	F1	mg/Kg		65	70 - 130	19	35

MSD MSD

Surrogate	%Recovery G	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-36886/5-A

Matrix: Solid

Analysis Batch: 36933

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36886

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:52	10/15/22 00:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:52	10/15/22 00:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:52	10/15/22 00:27	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/13/22 13:52	10/15/22 00:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:52	10/15/22 00:27	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/13/22 13:52	10/15/22 00:27	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	10/13/22 13:52	10/15/22 00:27	1
1,4-Difluorobenzene (Surr)	110		70 - 130	10/13/22 13:52	10/15/22 00:27	1

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

Lab Sample ID: MB 880-36395/1-A

Matrix: Solid

Analysis Batch: 36488

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36395

	MB MB						
Analyte	Result Qual	lifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0 U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1
(GRO)-C6-C10							

Client: Ensolum Job ID: 890-3168-1 Project/Site: Elk Wallow CDP

SDG: 03E1558115

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

Lab Sample ID: MB 880-36395/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36488 Prep Batch: 36395

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			10/07/22 15:16	10/10/22 10:59	1
o-Temhenyl	121		70 130			10/07/22 15:16	10/10/22 10:59	1

Lab Sample ID: LCS 880-36395/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36488 Prep Batch: 36395 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 996.9 100 70 - 130 mg/Kg (GRO)-C6-C10 1000 946.9 Diesel Range Organics (Over mg/Kg 95 70 - 130 C10-C28) LCS LCS Qualifier Limits Surrogate %Recovery 1-Chlorooctane 70 - 130 107 o-Terphenyl 117 70 - 130

Lab Sample ID: LCSD 880-36395/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36488 Prep Batch: 36395

1000

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier %Rec Limits RPD Limit Unit D Gasoline Range Organics 1000 1023 mg/Kg 102 70 - 130 3 20

992.6

mg/Kg

99

70 - 130

5

20

Diesel Range Organics (Over C10-C28)

(GRO)-C6-C10

C10-C28)

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 890-3155-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 36488 Prep Batch: 36395

	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	<50.0	U	998	983.4		mg/Kg		96	70 - 130
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U F1	998	671.0	F1	mg/Kg		66	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	78		70 - 130

QC Sample Results

Job ID: 890-3168-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

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

Lab Sample ID: 890-3155-A-1-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 36488 Prep Batch: 36395

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	<50.0	U	999	1010		mg/Kg		99	70 - 130	3	20	
(GRO)-C6-C10												
Diesel Range Organics (Over	<50.0	U F1	999	687.0	F1	mg/Kg		67	70 - 130	2	20	

C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 82 o-Terphenyl 78 70 - 130

MB MB

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36394/1-A Client Sample ID: Method Blank

Matrix: Solid Prep Type: Soluble

Analysis Batch: 36739

Result Qualifier RL Unit Analyte Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 10/11/22 20:54

Lab Sample ID: LCS 880-36394/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid Analysis Batch: 36739

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 258.9 90 - 110 mg/Kg 104

Lab Sample ID: LCSD 880-36394/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36739

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

Chloride 250 269.0 108 90 - 110 mg/Kg

Lab Sample ID: 890-3163-A-7-C MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36739

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

Chloride F1 249 100 90 - 110 241 489.4 mg/Kg

Lab Sample ID: 890-3163-A-7-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36739

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Qualifier Result %Rec Limits RPD Limit Analyte Unit D 241 F1 249 Chloride 520.0 F1 112 90 - 110 20 mg/Kg

QC Association Summary

Client: Ensolum Job ID: 890-3168-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

GC VOA

Prep Batch: 36682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3168-1	SS01	Total/NA	Solid	5035	
890-3168-2	SS02	Total/NA	Solid	5035	
MB 880-36682/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36682/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36682/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3175-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
890-3175-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 36886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36886/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3168-1	SS01	Total/NA	Solid	8021B	36682
890-3168-2	SS02	Total/NA	Solid	8021B	36682
MB 880-36682/5-A	Method Blank	Total/NA	Solid	8021B	36682
MB 880-36886/5-A	Method Blank	Total/NA	Solid	8021B	36886
LCS 880-36682/1-A	Lab Control Sample	Total/NA	Solid	8021B	36682
LCSD 880-36682/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36682
890-3175-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	36682
890-3175-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36682

Analysis Batch: 37107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3168-1	SS01	Total/NA	Solid	Total BTEX	
890-3168-2	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 36395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3168-1	SS01	Total/NA	Solid	8015NM Prep	
890-3168-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36488

Released to Imaging: 2/3/2023 9:40:16 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3168-1	SS01	Total/NA	Solid	8015B NM	36395
890-3168-2	SS02	Total/NA	Solid	8015B NM	36395
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015B NM	36395
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36395
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36395
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36395
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36395

QC Association Summary

Client: Ensolum

Job ID: 890-3168-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

GC Semi VOA

Analysis Batch: 36656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3168-1	SS01	Total/NA	Solid	8015 NM	
890-3168-2	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3168-1	SS01	Soluble	Solid	DI Leach	_
890-3168-2	SS02	Soluble	Solid	DI Leach	
MB 880-36394/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36394/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36394/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3163-A-7-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3163-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3168-1	SS01	Soluble	Solid	300.0	36394
890-3168-2	SS02	Soluble	Solid	300.0	36394
MB 880-36394/1-A	Method Blank	Soluble	Solid	300.0	36394
LCS 880-36394/2-A	Lab Control Sample	Soluble	Solid	300.0	36394
LCSD 880-36394/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36394
890-3163-A-7-C MS	Matrix Spike	Soluble	Solid	300.0	36394
890-3163-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36394

Lab Chronicle

Client: Ensolum Job ID: 890-3168-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SS01 Lab Sample ID: 890-3168-1 Date Collected: 10/06/22 08:45

Matrix: Solid

Date Received: 10/06/22 13:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36682	10/11/22 13:34	EL	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	36933	10/15/22 15:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37107	10/17/22 10:03	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36656	10/11/22 09:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	36395	10/07/22 15:16	DM	EET MID
Total/NA	Analysis	8015B NM		10	1 uL	1 uL	36488	10/10/22 16:42	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36394	10/07/22 15:14	СН	EET MID
Soluble	Analysis	300.0		1			36739	10/11/22 23:32	CH	EET MID

Client Sample ID: SS02 Lab Sample ID: 890-3168-2

Date Collected: 10/06/22 08:50 Matrix: Solid

Date Received: 10/06/22 13:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	36682	10/11/22 13:34	EL	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	36933	10/15/22 15:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37107	10/17/22 10:03	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36656	10/11/22 09:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	36395	10/07/22 15:16	DM	EET MID
Total/NA	Analysis	8015B NM		10	1 uL	1 uL	36488	10/10/22 17:02	SM	EET MIC
Soluble	Leach	DI Leach			5.05 g	50 mL	36394	10/07/22 15:14	СН	EET MIC
Soluble	Analysis	300.0		1			36739	10/11/22 23:37	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Elk Wallow CDP
Job ID: 890-3168-1
SDG: 03E1558115

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	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	Analyte Total TPH	

Method Summary

Job ID: 890-3168-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

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: Elk Wallow CDP

Job ID: 890-3168-1

SDO

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3168-1	SS01	Solid	10/06/22 08:45	10/06/22 13:00	0.5
890-3168-2	SS02	Solid	10/06/22 08:50	10/06/22 13:00	0.5

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Total 200.7 / 6010

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Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020 2

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Xenco

Environment Testing

Project Manager:

Tacoma Morrissey

Company Name:

Ensolum

Address:

3122 National Parks Hwy

City, State ZIP:

303-887-2946 Carlsbad, NM 88220

Email: Garret.Green@ExxonMobil.com

City, State ZIP: Address: Company Name: Bill to: (if different)

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

Elk Wallow CDP

Turn Around

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:

	www.xenco.com	Page
	Work Order Comments	omments
	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund [ıfields 🗌 RRC 📗 Superfund 📗
	State of Project:	
	Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	/UST ☐ TRRP ☐ Level IV☐
	Deliverables: EDD ☐ ADaPT ☐	Other:
S REC	SREQUEST	Preservative Codes
		None: NO DI Water: H ₂ O

03E1558115	Routine	Rush	0.7	Code													 		Nor Nor	None: NO		DΙV	DI Water: H ₂ 0	
14551,-103.96291	Due Date:																	_	Coc	Cool: Cool	_	MeC	MeOH: Me	
Kase Parker	TAT starts the day received by	day receive	d by													Ξ			프	HCL: HC		NH) ₃ : HN	
)	the lab, if rec	the lab, if received by 4:30pm	mo	rs	_	1													H ₂ S	H ₂ SO ₄ : H ₂		Nac	NaOH: Na	
app Blank: Tes No	Wet Ice:	(Ye) No	ů	nete	.0)														H ₃ P	Н₃РО₄: НР	U			
No Thermometer ID:	er ID: //	COMOD.	4	ıran	300														Nat	NaHSO ₄ : NABIS	NABIS	•		
No No Correction Factor:	actor:	-0		Pa	PA:					-068	3168	890-3168 Chain of Custody	of Cu	stody					Na ₂	Na ₂ S ₂ O ₃ : NaSO ₃	NaSO	<u>.</u>		
No Temperature Reading:	e Reading:	8.6) (E				_						•	1			Zn /	Zn Acetate+NaOH: Zn	∍+NaC)H: Zn		
Corrected Temperature:	emperature:	9.6			IDES	15)	3021												NaC	NaOH+Ascorbic Acid: SAPC	corbic	Acid:	SAPC	
Matrix Date Sampled	Time Sampled	Depth G	Grab/	# of	CHLOR	TPH (80	BTEX (Sam	Sample Comments	omm	ents	
S 10/6/2022	8:45	0.5'	G	-1	×	×	×												Inci	ncident ID:	P			
S 10/6/2022	8:50	0.5'	G	1	×	×	×											-		nAF	nAPP2223831434	3831	434	
				_				:											င္ပစ္ဖ	Cost Center:	ter:			
																	\vdash				10676	067691001		
																			AFE:	i'n				
				A	/D												_							
						\int	\perp																	
			\parallel	\coprod					I						T		\dagger	\dagger	\dagger					
			4								Λ	/						1						
			Ш	Ш	Ш									7			\vdash		-					
.8 / 6020: 8	8RCRA 13PPM Texas 11 Al Sb As Ba	PM Texa	s 11	Al St	Ąs	Ba Be		B Cd Ca	ζ.	Cr Co Cu Fe Pb Mg Mn Mo Ni	u Fe	용	₩	M		X Se	Ą	SiO ₂	Na Sr	SiO ₂ Na Sr Ti Sn U V Zn	<u> </u>	V Zn		
) to be analyzed	TCLP / S	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	8RC	₽ C	b As	Ва	Be C	ਨ	8	ü Pb	₹	Mo Z	Se	ð	<u></u>		占		/ 245	1631 / 245.1 / 7470 / 7471	170 /	7471		
relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions entry 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	stitutes a valid p	urchase order	r from c	for any	mpany i	o Eurof	ins Xen	co, its a	ffiliates by the	and su	bcontra such los	ctors.	t assign	ns stan	dard te	rms an	d condi	tions						
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.	project and a cl	harge of \$5 for	each s	ample s	ubmitte	d to Eu	rofins X	enco, b	ut not a	nalyzed	. These	terms v	vill be e	nforce	unles	s previo	usly ne	gotiate	۱.					

SAMPLE RECEIPT Samples Received Intact:

Cooler Custody Seals:

Yes Yes

ample Custody Seals:

Sample Identification

SS02 SS01 Sampler's Name: Project Location: Project Number: Project Name:

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3168-1 SDG Number: 03E1558115

Login Number: 3168 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3168-1 SDG Number: 03E1558115

Login Number: 3168 **List Source: Eurofins Midland** List Number: 2 List Creation: 10/07/22 11:00 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").

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3277-1

Laboratory Sample Delivery Group: 03E1558115

Client Project/Site: Elk Wallow CDP

For:

🗱 eurofins

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

10/31/2022 1:03:06 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

Review your project results through EOL **Have a Question?**

------ LINKS ------

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/3/2023 9:40:16 AM

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

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

Client: Ensolum
Project/Site: Elk Wallow CDP
Laboratory Job ID: 890-3277-1
SDG: 03E1558115

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Definitions/Glossary

Job ID: 890-3277-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

Qualifiers

GC VOA Qualifier **Qualifier Description**

LCS and/or LCSD is outside acceptance limits, low biased. S1-Surrogate recovery exceeds control limits, low biased. Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis %R Percent Recovery **CFL** Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid DER Duplicate Error Ratio (normalized absolute difference) Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

Decision Level Concentration (Radiochemistry) DLC

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

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit**

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

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RPD Relative Percent Difference, a measure of the relative difference between two points

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: Elk Wallow CDP SD0

Job ID: 890-3277-1 SDG: 03E1558115

Job ID: 890-3277-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3277-1

Receipt

The samples were received on 10/25/2022 11:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH02 (890-3277-1) and PH02A (890-3277-2).

GC VOA

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-38061 and analytical batch 880-38058 was outside the upper control limits.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-38061 and analytical batch 880-38058 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-37877 and analytical batch 880-37857 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCSD 880-37877/3-A) and (MB 880-37877/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

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4.0

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Matrix: Solid

Lab Sample ID: 890-3277-1

Job ID: 890-3277-1

Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: PH02 Date Collected: 10/24/22 10:10 Date Received: 10/25/22 11:35

Sample Depth: 1'

Method: SW846 8021B - Volat	ile Organic Comp	ounds (GC))					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/28/22 09:04	10/28/22 21:19	1
Toluene	<0.00200	U *-	0.00200	mg/Kg		10/28/22 09:04	10/28/22 21:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/28/22 09:04	10/28/22 21:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/28/22 09:04	10/28/22 21:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/28/22 09:04	10/28/22 21:19	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/28/22 09:04	10/28/22 21:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130			10/28/22 09:04	10/28/22 21:19	1
1,4-Difluorobenzene (Surr)	129		70 - 130			10/28/22 09:04	10/28/22 21:19	1

Method: TAL SOP Total BTEX - Total E	STEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			10/30/22 22:15	1

Method: SW846 8015 NM - Diesel Rar	nge Organic	cs (DRO) (G	C)					
Analyte	Result (Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1030		50.0	mg/Kg			10/27/22 09:52	1

Method: SW846 8015B NM - Di	esel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+ *1	50.0	mg/Kg		10/26/22 11:21	10/27/22 03:54	1
Diesel Range Organics (Over C10-C28)	918		50.0	mg/Kg		10/26/22 11:21	10/27/22 03:54	1
Oll Range Organics (Over C28-C36)	111		50.0	mg/Kg		10/26/22 11:21	10/27/22 03:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			10/26/22 11:21	10/27/22 03:54	1

Method: MCAWW 300.0 - Anions, le	on Chromato	graphy - So	luble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.9		5.04	mg/Kg			10/30/22 02:34	1

70 - 130

105

Client Sample ID: PH02A Lab Sample ID: 890-3277-2 Matrix: Solid

Date Collected: 10/24/22 10:30 Date Received: 10/25/22 11:35

Sample Depth: 4'

o-Terphenyl

Method: SW846 8021B - Vola	atile Organic Comp	ounds (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/28/22 09:04	10/28/22 21:45	1
Toluene	<0.00200	U *-	0.00200	mg/Kg		10/28/22 09:04	10/28/22 21:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/28/22 09:04	10/28/22 21:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/28/22 09:04	10/28/22 21:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/28/22 09:04	10/28/22 21:45	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/28/22 09:04	10/28/22 21:45	1

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10/26/22 11:21

10/27/22 03:54

Matrix: Solid

Lab Sample ID: 890-3277-2

10/30/22 02:41

Client Sample Results

Client: Ensolum Job ID: 890-3277-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: PH02A

Date Collected: 10/24/22 10:30 Date Received: 10/25/22 11:35

Sample Denth: 4'

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			10/28/22 09:04	10/28/22 21:45	1
1,4-Difluorobenzene (Surr)	88		70 - 130			10/28/22 09:04	10/28/22 21:45	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/30/22 22:15	1
Method: SW846 8015 NM - Dies	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
,								
Total TPH	<50.0	U	50.0	mg/Kg			10/27/22 09:52	1
Total TPH				mg/Kg			10/27/22 09:52	1
<u> </u>	esel Range Orga			mg/Kg		Prepared	10/27/22 09:52 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Did Analyte Gasoline Range Organics	esel Range Orga Result	nics (DRO)	(GC)		D	Prepared 10/26/22 11:21		Dil Fac
Total TPH Method: SW846 8015B NM - Did Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	esel Range Orga Result	nics (DRO) Qualifier U *+ *1	(GC)	Unit	<u>D</u>		Analyzed	Dil Fac
Method: SW846 8015B NM - Did Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	esel Range Orga Result <50.0	nics (DRO) Qualifier U *+ *1	(GC) RL 50.0	<mark>Unit</mark> mg/Kg	<u>D</u>	10/26/22 11:21	Analyzed 10/27/22 04:15	Dil Fac
Method: SW846 8015B NM - Did Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	esel Range Orga Result <50.0 <50.0	nics (DRO) Qualifier U *+ *1 U	(GC) RL 50.0	Unit mg/Kg mg/Kg	<u>D</u>	10/26/22 11:21	Analyzed 10/27/22 04:15 10/27/22 04:15	1
Total TPH Method: SW846 8015B NM - Did Analyte Gasoline Range Organics (GRO)-C6-C10	Result <50.0 <50.0	nics (DRO) Qualifier U *+ *1 U	(GC) RL 50.0 50.0 50.0	Unit mg/Kg mg/Kg	<u>D</u>	10/26/22 11:21 10/26/22 11:21 10/26/22 11:21	Analyzed 10/27/22 04:15 10/27/22 04:15 10/27/22 04:15	Dil Fac

5.01

mg/Kg

24.5

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3277-1

 Project/Site: Elk Wallow CDP
 SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acc	eptance Limi
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
880-20623-A-84-G MS	Matrix Spike	99	93		
880-20623-A-84-K MSD	Matrix Spike Duplicate	96	92		
890-3277-1	PH02	130	129		
890-3277-2	PH02A	101	88		
CS 880-38061/1-A	Lab Control Sample	110	106		
.CSD 880-38061/2-A	Lab Control Sample Dup	108	100		
MB 880-38061/6-A	Method Blank	62 S1-	89		

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

- 			
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3276-A-21-B MS	Matrix Spike	82	84
890-3276-A-21-C MSD	Matrix Spike Duplicate	98	97
890-3277-1	PH02	92	105
890-3277-2	PH02A	90	104
LCS 880-37877/2-A	Lab Control Sample	97	118
LCSD 880-37877/3-A	Lab Control Sample Dup	117	137 S1+
MB 880-37877/1-A	Method Blank	121	146 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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13

М

Client: Ensolum Job ID: 890-3277-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38061/6-A

Lab Sample ID: LCS 880-38061/1-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 38058

Analysis Batch: 38058

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38061

	MB	мв						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/28/22 09:04	10/28/22 11:36	•
Toluene	<0.00201	U	0.00201	mg/Kg		10/28/22 09:04	10/28/22 11:36	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/28/22 09:04	10/28/22 11:36	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/28/22 09:04	10/28/22 11:36	
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/28/22 09:04	10/28/22 11:36	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/28/22 09:04	10/28/22 11:36	

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62	S1-	70 - 130	10/28/22 09:04	10/28/22 11:36	1
1,4-Difluorobenzene (Surr)	89		70 - 130	10/28/22 09:04	10/28/22 11:36	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38061

Prep Type: Total/NA

Prep Batch: 38061

35

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.07369 mg/Kg 74 70 - 130 Toluene 0.100 0.06319 *mg/Kg 63 70 - 130 0.100 0.07103 71 Ethylbenzene mg/Kg 70 - 130 0.200 71 70 - 130 m-Xylene & p-Xylene 0.1424 mg/Kg 0.100 0.07141 70 - 130 o-Xylene mg/Kg

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	110	70 - 130
1,4-Difluorobenzene (Surr)	106	70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene

o-Xylene

Analysis Batch: 38058

Lab Sample ID: LCSD 880-38061/2-A

Spike	LCSD	LCSD				%Rec		RPD	
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
 0.100	0.08194		mg/Kg		82	70 - 130	11	35	
0.100	0.07901		mg/Kg		79	70 - 130	22	35	
0.100	0.07690		mg/Kg		77	70 - 130	8	35	
0.200	0.1545		mg/Kg		77	70 - 130	8	35	

mg/Kg

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1.4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-20623-A-84-G MS

Matrix: Solid

Analysis Batch: 38058

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

70 - 130

Prep Batch: 38061

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.0998	0.07938		mg/Kg		80	70 - 130	
Toluene	< 0.00199	U *-	0.0998	0.07727		mg/Kg		77	70 - 130	

0.100

0.07852

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Client: Ensolum Job ID: 890-3277-1

Project/Site: Elk Wallow CDP SDG: 03E1558115

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

Lab Sample ID: 880-20623-A-84-G MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 38058 Prep Batch: 38061

	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Ethylbenzene	<0.00199	U	0.0998	0.07442		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1483		mg/Kg		74	70 - 130
o-Xvlene	< 0.00199	U	0.0998	0.07325		ma/Ka		73	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 880-20623-A-84-K MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 38058 Prep Batch: 38061

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.0990	0.08035		mg/Kg		81	70 - 130	1	35
Toluene	<0.00199	U *-	0.0990	0.07748		mg/Kg		78	70 - 130	0	35
Ethylbenzene	<0.00199	U	0.0990	0.07532		mg/Kg		76	70 - 130	1	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1500		mg/Kg		76	70 - 130	1	35
o-Xylene	<0.00199	U	0.0990	0.07389		mg/Kg		75	70 - 130	1	35

MSD MSD Qualifier Limits Surrogate %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 96 1,4-Difluorobenzene (Surr) 92 70 - 130

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

Lab Sample ID: MB 880-37877/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 37857 Prep Batch: 37877

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/26/22 11:21	10/26/22 20:49	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/26/22 11:21	10/26/22 20:49	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/26/22 11:21	10/26/22 20:49	1

	MB	МВ				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	10/26/22 11:21	10/26/22 20:49	1
o-Terphenyl	146	S1+	70 - 130	10/26/22 11:21	10/26/22 20:49	1

Lab Sample ID: LCS 880-37877/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

LCS LCS Spike %Rec Added Qualifier Analyte Result Unit %Rec Limits 1000 108 70 - 130 Gasoline Range Organics 1077 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1003 mg/Kg 100 70 - 130

C10-C28)

Analysis Batch: 37857

Eurofins Carlsbad

Prep Batch: 37877

Job ID: 890-3277-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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

LCS LCS

Lab Sample ID: LCS 880-37877/2-A

Matrix: Solid

Analysis Batch: 37857

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

Prep Batch: 37877

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 97 70 - 130 o-Terphenyl 118 70 - 130

Lab Sample ID: LCSD 880-37877/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 37857

Prep Type: Total/NA

Prep Batch: 37877

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit 1000 1328 *+ *1 133 70 - 13021 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1159 mg/Kg 116 70 - 13020 14 C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 117 137 S1+ 70 - 130 o-Terphenyl

Lab Sample ID: 890-3276-A-21-B MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 37857

Prep Type: Total/NA

Prep Batch: 37877

MS MS Sample Sample Spike Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <49.8 U *+ *1 998 1122 mg/Kg 110 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 998 938.0 mg/Kg 94 70 - 130 C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 82 o-Terphenyl 84 70 - 130

Lab Sample ID: 890-3276-A-21-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 37857

Prep Type: Total/NA

Prep Batch: 37877

MSD MSD RPD Spike %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Gasoline Range Organics U *+ *1 998 937.6 91 <49.8 mg/Kg 70 - 130 18 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 998 1117 mg/Kg 112 70 - 130 17 20 C10-C28)

MSD MSD

Released to Imaging: 2/3/2023 9:40:16 AM

Surrogate	%Recovery Q	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	97		70 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: PH02A

Client Sample ID: PH02A

Prep Type: Soluble

Prep Type: Soluble

Client: Ensolum Job ID: 890-3277-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37893/1-A

Matrix: Solid

Analysis Batch: 38163

MB MB

 Analyte
 Result Chloride
 Qualifier
 RL Unit
 Unit mg/Kg
 D Prepared
 Analyzed Analyzed
 Dil Fac Dil Fa

Lab Sample ID: LCS 880-37893/2-A

Matrix: Solid

Analysis Batch: 38163

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 262.4 mg/Kg 105 90 - 110

Lab Sample ID: LCSD 880-37893/3-A

Matrix: Solid

Analysis Batch: 38163

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 262.8 105 mg/Kg 90 - 110

Lab Sample ID: 890-3277-2 MS

Matrix: Solid

Analysis Batch: 38163

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Unit %Rec Result Qualifier Limits 290.5 Chloride 24.5 251 106 90 - 110 mg/Kg

Lab Sample ID: 890-3277-2 MSD

Matrix: Solid

Analysis Batch: 38163

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 251 Chloride 24.5 290.9 mg/Kg 106 90 - 110 0 20

Eurofins Carlsbad

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QC Association Summary

Client: Ensolum Job ID: 890-3277-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

GC VOA

Analysis Batch: 38058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3277-1	PH02	Total/NA	Solid	8021B	38061
890-3277-2	PH02A	Total/NA	Solid	8021B	38061
MB 880-38061/6-A	Method Blank	Total/NA	Solid	8021B	38061
LCS 880-38061/1-A	Lab Control Sample	Total/NA	Solid	8021B	38061
LCSD 880-38061/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38061
880-20623-A-84-G MS	Matrix Spike	Total/NA	Solid	8021B	38061
880-20623-A-84-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38061

Prep Batch: 38061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3277-1	PH02	Total/NA	Solid	5035	
890-3277-2	PH02A	Total/NA	Solid	5035	
MB 880-38061/6-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38061/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38061/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20623-A-84-G MS	Matrix Spike	Total/NA	Solid	5035	
880-20623-A-84-K MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 38198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3277-1	PH02	Total/NA	Solid	Total BTEX	
890-3277-2	PH02A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 37857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3277-1	PH02	Total/NA	Solid	8015B NM	37877
890-3277-2	PH02A	Total/NA	Solid	8015B NM	37877
MB 880-37877/1-A	Method Blank	Total/NA	Solid	8015B NM	37877
LCS 880-37877/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37877
LCSD 880-37877/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37877
890-3276-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	37877
890-3276-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	37877

Prep Batch: 37877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3277-1	PH02	Total/NA	Solid	8015NM Prep	
890-3277-2	PH02A	Total/NA	Solid	8015NM Prep	
MB 880-37877/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37877/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-37877/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3276-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3276-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 37992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3277-1	PH02	Total/NA	Solid	8015 NM	
890-3277-2	PH02A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum Job ID: 890-3277-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

HPLC/IC

Leach Batch: 37893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3277-1	PH02	Soluble	Solid	DI Leach	
890-3277-2	PH02A	Soluble	Solid	DI Leach	
MB 880-37893/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37893/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37893/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3277-2 MS	PH02A	Soluble	Solid	DI Leach	
890-3277-2 MSD	PH02A	Soluble	Solid	DI Leach	

Analysis Batch: 38163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3277-1	PH02	Soluble	Solid	300.0	37893
890-3277-2	PH02A	Soluble	Solid	300.0	37893
MB 880-37893/1-A	Method Blank	Soluble	Solid	300.0	37893
LCS 880-37893/2-A	Lab Control Sample	Soluble	Solid	300.0	37893
LCSD 880-37893/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37893
890-3277-2 MS	PH02A	Soluble	Solid	300.0	37893
890-3277-2 MSD	PH02A	Soluble	Solid	300.0	37893

10/31/2022

Client: Ensolum

Job ID: 890-3277-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: PH02 Lab Sample ID: 890-3277-1

Date Collected: 10/24/22 10:10 Matrix: Solid Date Received: 10/25/22 11:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	38061	10/28/22 09:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38058	10/28/22 21:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38198	10/30/22 22:15	SM	EET MID
Total/NA	Analysis	8015 NM		1			37992	10/27/22 09:52	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	37877	10/26/22 11:21	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37857	10/27/22 03:54	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	37893	10/27/22 10:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38163	10/30/22 02:34	CH	EET MID

Client Sample ID: PH02A Lab Sample ID: 890-3277-2

Date Collected: 10/24/22 10:30 Matrix: Solid

Date Received: 10/25/22 11:35

	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	38061	10/28/22 09:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38058	10/28/22 21:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38198	10/30/22 22:15	SM	EET MID
Total/NA	Analysis	8015 NM		1			37992	10/27/22 09:52	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	37877	10/26/22 11:21	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37857	10/27/22 04:15	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	37893	10/27/22 10:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38163	10/30/22 02:41	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Elk Wallow CDP
Job ID: 890-3277-1
SDG: 03E1558115

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 the agency does not of		ut the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes fo
and agoing, accounter or	ici oci illoation.			
Analysis Method	Prep Method	Matrix	Analyte	
9 ,		Matrix Solid	Analyte Total TPH	

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Method Summary

Job ID: 890-3277-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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: Elk Wallow CDP

Job ID: 890-3277-1

SDG: 03E1558115

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	De
890-3277-1	PH02	Solid	10/24/22 10:10	10/25/22 11:35	1'
890-3277-2	PH02A	Solid	10/24/22 10:30	10/25/22 11:35	4'

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Circle Method(s) and

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June solo

Received by: (Signature

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

eurofins Environment Testing Xenco

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:

ce. Signature of this document and relinquishment or rvice. Eurofins Xenco will be liable only for the cost or urofins Xenco. A minimum charge of \$85.00 will be a	Total 200.7 / 6010 200.8 / 6020: ircle Method(s) and Metal(s) to be analyzed						7	РНОЗ	Sample Identification M	otal Containers:	ample Custody Seals: Yes No N/A	ooler Custody Seals: Yes No	amples Received Intact: Yes No	AMPLE RECEIPT Temp Blank:	0 #:	ampler's Name: Mcredith	oject Location: 32.14551	roject Number: 03E1558115	oject Name: EIK Wallow
of samples constitutes a valid purchase order from client company to E of samples and shall not assume any responsibility for any losses or ex upplied to each project and a charge of \$5 for each sample submitted	8RCR/					30	1020 41	5 10/24/27 1010 11 6	Matrix Sampled Sampled Depth Comp Cont	Corrected Temperature: 3	/A Temperature Reading: 4.D	(A) Correction Factor:	Thermometer ID:	Top No Wetke: Cyp No	the lab, if received by 4:30pm	Roberts TAT starts the day received by	2.14551, 7/03. 76291 Due Date:	S Pres.	CDP Turn Around
tice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control 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.	Cd Ca Cr Co Cu Fe Pb Mg M Cd Cr Co Cu Pb Mn Mo Ni Se <i>I</i>						×	×××	Ch B1	H				neter	-			de s	ANALYSIS REQUEST
	n Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Zn Ng Tl U Hg: 1631/245.1/7470/7471	30-015-37588		106769100	Cost Center		APP777283/434	Incident #	Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	Na ₂ S ₂ O ₃ : NaSO ₃	NaHSO 4: NABIS	H ₃ PO ₄ :HP	H ₂ SO ₄ :H ₂ NaOH:Na	HCL: HC HNO 3: HN	0	None: NO DI Water: H ₂ O	Preservative Codes

Cooler Custody Seals:

Samples Received Intact:

Total Containers: Sample Custody Seals: SAMPLE RECEIPT

Sampler's Name:

Project Number:

City, State ZIP:

Address: Company Name:

3122 Nat 1 Carisbad, NM

Parks

88220 Harry

City, State ZIP: Address: Company Name: Bill to: (if different)

3104

barrett

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Program:

UST/PST | PRP | Brownfields |

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Work Order Comments

www.xenco.com

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State of Project:

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Reporting: Level II | Level III | PST/UST | TRRP |

Level IV

Chief war

acoma Mornsky

Project Manager:

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3277-1

SDG Number: 03E1558115

Login Number: 3277 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3277-1

SDG Number: 03E1558115

Login Number: 3277
List Source: Eurofins Midland
List Number: 2
List Creation: 10/26/22 10:29 AM

Creator: Rodriguez, Leticia

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

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<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3278-1

Laboratory Sample Delivery Group: 03E1558115

Client Project/Site: Elk Wallow CDP

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

11/1/2022 1:08:35 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

Have a Question?

EOL

------ LINKS ------

Review your project results through

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/3/2023 9:40:16 AM This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

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

Client: Ensolum
Project/Site: Elk Wallow CDP
Laboratory Job ID: 890-3278-1
SDG: 03E1558115

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Definitions/Glossary

Job ID: 890-3278-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier **Qualifier Description** *+ LCS and/or LCSD is outside acceptance limits, high biased.

*1 LCS/LCSD RPD exceeds control limits.

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

HPLC/IC

Qualifier **Qualifier Description**

U Indicates the analyte was analyzed for but not detected.

Glossary

EDL

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
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor

DL Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

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

NC Not Calculated

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

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

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: Elk Wallow CDP

Job ID: 890-3278-1

SDG: 03E1558115

Job ID: 890-3278-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3278-1

Receipt

The samples were received on 10/25/2022 11:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH01 (890-3278-1), PH01A (890-3278-2) and PH01B (890-3278-3).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-38104 and analytical batch 880-38211 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-38104 and analytical batch 880-38211 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-20715-A-1-I). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-37877 and analytical batch 880-37857 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCSD 880-37877/3-A) and (MB 880-37877/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

-

6

9

11

4.0

Client: Ensolum Job ID: 890-3278-1

Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: PH01 Lab Sample ID: 890-3278-1

Date Collected: 10/24/22 09:30 Matrix: Solid Date Received: 10/25/22 11:35

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/28/22 13:54	10/31/22 23:28	1
Toluene	< 0.00199	U	0.00199	mg/Kg		10/28/22 13:54	10/31/22 23:28	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		10/28/22 13:54	10/31/22 23:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/28/22 13:54	10/31/22 23:28	1
o-Xylene	0.00833		0.00199	mg/Kg		10/28/22 13:54	10/31/22 23:28	1
Xylenes, Total	0.00833		0.00398	mg/Kg		10/28/22 13:54	10/31/22 23:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130			10/28/22 13:54	10/31/22 23:28	1
1,4-Difluorobenzene (Surr)	98		70 - 130			10/28/22 13:54	10/31/22 23:28	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00833		0.00398	mg/Kg			11/01/22 09:36	1
Method: SW846 8015 NM - Diese	el Range Organ			99			11101122 00:00	
	el Range Organ	ics (DRO) (G		Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte	el Range Organ		GC)		<u>D</u>	Prepared		Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	el Range Organ Result 356	Qualifier	RL 50.0	Unit	<u>D</u>	Prepared	Analyzed	
Method: SW846 8015 NM - Diese Analyte	el Range Organ Result 356 sel Range Orga	Qualifier	RL 50.0	Unit	<u>D</u>	Prepared Prepared	Analyzed	1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	el Range Organ Result 356 sel Range Orga Result	Qualifier nics (DRO)	RL 50.0	Unit mg/Kg	_ =		Analyzed 10/27/22 09:52	1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	el Range Organ Result 356 sel Range Orga Result	Qualifier nics (DRO) Qualifier	GC) RL 50.0 (GC) RL	Unit mg/Kg	_ =	Prepared	Analyzed 10/27/22 09:52 Analyzed	1 Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range Organ Result 356 sel Range Orga Result <50.0	Qualifier nics (DRO) Qualifier U *+ *1	GC) RL 50.0 (GC) RL 50.0	Unit mg/Kg Unit mg/Kg	_ =	Prepared 10/26/22 11:21	Analyzed 10/27/22 09:52 Analyzed 10/27/22 04:36	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Organ Result 356 sel Range Orga Result <50.0	Qualifier nics (DRO) Qualifier U *+ *1	GC) RL 50.0 (GC) RL 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 10/26/22 11:21 10/26/22 11:21	Analyzed 10/27/22 09:52 Analyzed 10/27/22 04:36 10/27/22 04:36	1 Dil Fac 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	el Range Organ Result 356 sel Range Orga Result <50.0 356	Qualifier nics (DRO) Qualifier U *+ *1	GC) RL 50.0 (GC) RL 50.0 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 10/26/22 11:21 10/26/22 11:21 10/26/22 11:21	Analyzed 10/27/22 09:52 Analyzed 10/27/22 04:36 10/27/22 04:36 10/27/22 04:36	Dil Fac 1 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	el Range Organ Result 356 sel Range Orga Result <50.0 356 <50.0 %Recovery	Qualifier nics (DRO) Qualifier U *+ *1	GC) RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	Unit mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 10/26/22 11:21 10/26/22 11:21 10/26/22 11:21 Prepared	Analyzed 10/27/22 09:52 Analyzed 10/27/22 04:36 10/27/22 04:36 10/27/22 04:36 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Range Organ Result 356	Qualifier nics (DRO) Qualifier U *+ *1	GC) RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 10/26/22 11:21 10/26/22 11:21 10/26/22 11:21 Prepared 10/26/22 11:21	Analyzed 10/27/22 09:52 Analyzed 10/27/22 04:36 10/27/22 04:36 Analyzed 10/27/22 04:36	Dil Fac 1 1 Dil Fac Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Range Organ Result 356	Qualifier nics (DRO) Qualifier U *+ *1	GC) RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 10/26/22 11:21 10/26/22 11:21 10/26/22 11:21 Prepared 10/26/22 11:21	Analyzed 10/27/22 09:52 Analyzed 10/27/22 04:36 10/27/22 04:36 Analyzed 10/27/22 04:36	1 1 1 Dil Fac 1

Client Sample ID: PH01A Lab Sample ID: 890-3278-2

Date Collected: 10/24/22 09:50 Date Received: 10/25/22 11:35

Sample Depth: 4'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/28/22 13:54	10/31/22 23:49	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/28/22 13:54	10/31/22 23:49	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/28/22 13:54	10/31/22 23:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/28/22 13:54	10/31/22 23:49	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/28/22 13:54	10/31/22 23:49	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/28/22 13:54	10/31/22 23:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			10/28/22 13:54	10/31/22 23:49	

Eurofins Carlsbad

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3278-2

10/30/22 03:08

Client Sample Results

Client: Ensolum Job ID: 890-3278-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: PH01A

Date Collected: 10/24/22 09:50 Date Received: 10/25/22 11:35

Sample Depth: 4'

Chloride

Unit mg/Kg	<u>D</u>	10/28/22 13:54 Prepared	10/31/22 23:49 Analyzed 11/01/22 09:36	Dil Fac
mg/Kg	<u>D</u>	Prepared		Dil Fac
mg/Kg	<u>D</u>	Prepared		Dil Fac
			11/01/22 09:36	
				1
Unit	D	Prepared	Analyzed	Dil Fac
mg/Kg			10/27/22 09:52	1
Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
mg/Kg		10/26/22 11:21	10/27/22 04:57	1
mg/Kg		10/26/22 11:21	10/27/22 04:57	1
0 0				
mg/Kg		10/26/22 11:21	10/27/22 04:57	1
		Prepared	Analyzed	Dil Fac
		10/26/22 11:21	10/27/22 04:57	1
		10/26/22 11:21	10/27/22 04:57	1
	Unit mg/Kg mg/Kg	Unit D	Unit D Prepared mg/Kg 10/26/22 11:21 mg/Kg 10/26/22 11:21 mg/Kg 10/26/22 11:21 Prepared 10/26/22 11:21	Unit D Prepared Analyzed mg/Kg 10/26/22 11:21 10/27/22 04:57 mg/Kg 10/26/22 11:21 10/27/22 04:57 mg/Kg 10/26/22 11:21 10/27/22 04:57 Prepared 10/26/22 11:21 Analyzed 10/27/22 04:57

4.98

mg/Kg

32.9

Surrogate Summary

Client: Ensolum Job ID: 890-3278-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-20715-A-1-G MS	Matrix Spike	106	98	
880-20715-A-1-H MSD	Matrix Spike Duplicate	95	96	
890-3278-1	PH01	113	98	
890-3278-2	PH01A	117	103	
LCS 880-38104/1-A	Lab Control Sample	90	93	
LCSD 880-38104/2-A	Lab Control Sample Dup	93	102	
MB 880-38104/5-A	Method Blank	106	90	
MB 880-38223/5-A	Method Blank	99	91	

DEBT 4.4 DEST (O.)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		1CO1	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-3276-A-21-B MS	Matrix Spike	82	84	
390-3276-A-21-C MSD	Matrix Spike Duplicate	98	97	
390-3278-1	PH01	84	97	
90-3278-2	PH01A	89	103	
.CS 880-37877/2-A	Lab Control Sample	97	118	
CSD 880-37877/3-A	Lab Control Sample Dup	117	137 S1+	
1B 880-37877/1-A	Method Blank	121	146 S1+	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3278-1 Project/Site: Elk Wallow CDP

SDG: 03E1558115

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38104/5-A

Lab Sample ID: LCS 880-38104/1-A

Matrix: Solid

Analysis Batch: 38211

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38104

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/28/22 13:54	10/31/22 21:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/28/22 13:54	10/31/22 21:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/28/22 13:54	10/31/22 21:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/28/22 13:54	10/31/22 21:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/28/22 13:54	10/31/22 21:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/28/22 13:54	10/31/22 21:43	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	10/28/22 13:54	10/31/22 21:43	1
1.4-Difluorobenzene (Surr)	90		70 - 130	10/28/22 13:54	10/31/22 21:43	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38104

Prep Type: Total/NA

Prep Batch: 38104

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.08023 mg/Kg 80 70 - 130 Toluene 0.100 0.09061 mg/Kg 91 70 - 130 0.100 87 Ethylbenzene 0.08724 mg/Kg 70 - 130 0.200 0.1657 83 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.09573 70 - 130 o-Xylene mg/Kg 96

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	90	70 - 130
1,4-Difluorobenzene (Surr)	93	70 - 130

Lab Sample ID: LCSD 880-38104/2-A **Client Sample ID: Lab Control Sample Dup**

Matrix: Solid

Matrix: Solid

Analysis Batch: 38211

Analysis Batch: 38211

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.08940		mg/Kg		89	70 - 130	11	35	
Toluene	0.100	0.09359		mg/Kg		94	70 - 130	3	35	
Ethylbenzene	0.100	0.09028		mg/Kg		90	70 - 130	3	35	
m-Xylene & p-Xylene	0.200	0.1737		mg/Kg		87	70 - 130	5	35	
o-Xvlene	0.100	0.09916		ma/Ka		99	70 - 130	4	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1.4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-20715-A-1-G MS

Matrix: Solid

Analysis Batch: 38211

Client San	nple ID: Matrix Spike
	Prep Type: Total/NA

Prep Batch: 38104

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U F1	0.0998	0.06756	F1	mg/Kg	_	67	70 - 130	
Toluene	<0.00200	U	0.0998	0.07052		mg/Kg		71	70 - 130	

Prep Batch: 38104

Prep Type: Total/NA

3

71

67

77

mg/Kg

70 - 130

70 - 130

70 - 130

QC Sample Results

Job ID: 890-3278-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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

Lab Sample ID: 880-20715-A-1-G MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid Analysis Batch: 38211

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits D Ethylbenzene <0.00200 U 0.0998 0.07303 mg/Kg 72 70 - 130 m-Xylene & p-Xylene < 0.00401 0.200 0.1443 mg/Kg 71 70 - 130 <0.00200 U 0.0998 0.08233 82 70 - 130 o-Xylene mg/Kg

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-20715-A-1-H MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Ethylbenzene

Analysis Batch: 38211 Prep Batch: 38104 Sample Sample Spike MSD MSD %Rec RPD Result Qualifier RPD Limit Analyte Added Result Qualifier Unit %Rec Limits D Benzene <0.00200 U F1 0.0990 0.07262 mg/Kg 72 70 - 130 7 35 Toluene <0.00200 0.0990 0.07369 mg/Kg 74 70 - 130 4 35

0.07078

0.0990

m-Xylene & p-Xylene < 0.00401 UF1 0.198 0.1343 F1 mg/Kg 0.07664 0.0990 o-Xylene <0.00200 U mg/Kg MSD MSD

Surrogate Qualifier Limits %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 95 70 - 130 1,4-Difluorobenzene (Surr) 96

<0.00200

U

Lab Sample ID: MB 880-38223/5-A

Analysis Batch: 38211

Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 38223 MB MB

Result Qualifier Dil Fac Analyte RL Unit D Prepared Analyzed Benzene <0.00200 U 0.00200 mg/Kg 10/31/22 09:15 10/31/22 11:00 Toluene <0.00200 U 0.00200 10/31/22 09:15 10/31/22 11:00 mg/Kg Ethylbenzene <0.00200 U 0.00200 mg/Kg 10/31/22 09:15 10/31/22 11:00 m-Xylene & p-Xylene <0.00400 0.00400 mg/Kg 10/31/22 09:15 10/31/22 11:00 10/31/22 09:15 10/31/22 11:00 o-Xylene <0.00200 U 0.00200 mg/Kg Xylenes, Total <0.00400 U 0.00400 mg/Kg 10/31/22 09:15 10/31/22 11:00

MB Qualifier Limits Prepared Dil Fac Surrogate %Recovery Analyzed 4-Bromofluorobenzene (Surr) 99 70 - 130 10/31/22 09:15 10/31/22 11:00 10/31/22 09:15 1,4-Difluorobenzene (Surr) 91 70 - 130 10/31/22 11:00

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

Lab Sample ID: MB 880-37877/1-A

Matrix: Solid

Analysis Batch: 37857

Prep Batch: 37877 MB MB Analyte Qualifier RL Unit Prepared Dil Fac Result <50.0 Ū 50.0 10/26/22 11:21 10/26/22 20:49 Gasoline Range Organics mg/Kg

(GRO)-C6-C10

Eurofins Carlsbad

Prep Type: Total/NA

Client Sample ID: Method Blank

35

35

QC Sample Results

Client: Ensolum Job ID: 890-3278-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

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

Lab Sample ID: MB 880-37877/1-A **Matrix: Solid**

Analysis Batch: 37857

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

mg/Kg

mg/Kg

Prep Batch: 37877

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <50.0 U 50.0 10/26/22 11:21 10/26/22 20:49 Diesel Range Organics (Over mg/Kg C10-C28) OII Range Organics (Over C28-C36) 50.0 10/26/22 11:21 10/26/22 20:49 <50.0 U mg/Kg

MB MB

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	10/26/22 11:21	10/26/22 20:49	1
o-Terphenyl	146	S1+	70 - 130	10/26/22 11:21	10/26/22 20:49	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-37877/2-A **Matrix: Solid**

Analysis Batch: 37857

Diesel Range Organics (Over

Prep Type: Total/NA

70 - 130

Prep Batch: 37877

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1077 108 70 - 130 mg/Kg (GRO)-C6-C10 1000 1003 100

C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: LCSD 880-37877/3-A

Matrix: Solid

Analysis Batch: 37857

Client Sample	ID: Lab	Control	Sample Dup
---------------	---------	---------	------------

Prep Type: Total/NA

Prep Batch: 37877

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1328	*+ *1	mg/Kg		133	70 - 130	21	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1159		mg/Kg		116	70 - 130	14	20
C10-C28)									

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 117 70 - 130 o-Terphenyl 137 S1+ 70 - 130

Lab Sample ID: 890-3276-A-21-B MS

Matrix: Solid

Analysis Batch: 37857

Diesel Range Organics (Over

Client Sample ID: Matrix Spike

70 - 130

94

Prep Type: Total/NA

Prep Batch: 37877

Spike MS MS %Rec Sample Sample Limits Result Qualifier Added Result Qualifier Unit %Rec Analyte <49.8 U *+ *1 998 70 - 130 Gasoline Range Organics 1122 110 mg/Kg (GRO)-C6-C10

938.0

998

C10-C28)

	MS	MS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	82		70 - 130			
o-Terphenvl	84		70 - 130			

<49.8 U

Lab Sample ID: 890-3276-A-21-C MSD

Client: Ensolum Job ID: 890-3278-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 37877

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.8	U *+ *1	998	937.6		mg/Kg		91	70 - 130	18	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.8	U	998	1117		mg/Kg		112	70 - 130	17	20
C10-C28)											

Matrix: Solid

Analysis Batch: 37857

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	97		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37893/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 38163

мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/30/22 00:48	1

Lab Sample ID: LCS 880-37893/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 38163

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	262.4	-	mg/Kg		105	90 - 110	

Lab Sample ID: LCSD 880-37893/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 38163

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	262.8		mg/Kg		105	90 - 110	0	20	

Lab Sample ID: 890-3277-A-2-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 38163

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	24.5		251	290.5		ma/Ka		106	90 110	

Lab Sample ID: 890-3277-A-2-D MSD

Matrix: Solid

Analysis Batch: 38163

Analysis Batom sores												
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	24.5		251	290.9		ma/Ka		106	90 - 110	0	20	

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Prep Type: Soluble

Client Sample ID: Matrix Spike Duplicate

QC Association Summary

Client: Ensolum Job ID: 890-3278-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

GC VOA

Prep Batch: 38104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3278-1	PH01	Total/NA	Solid	5035	
890-3278-2	PH01A	Total/NA	Solid	5035	
MB 880-38104/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38104/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38104/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20715-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-20715-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 38211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3278-1	PH01	Total/NA	Solid	8021B	38104
890-3278-2	PH01A	Total/NA	Solid	8021B	38104
MB 880-38104/5-A	Method Blank	Total/NA	Solid	8021B	38104
MB 880-38223/5-A	Method Blank	Total/NA	Solid	8021B	38223
LCS 880-38104/1-A	Lab Control Sample	Total/NA	Solid	8021B	38104
LCSD 880-38104/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38104
880-20715-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	38104
880-20715-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38104

Prep Batch: 38223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38223/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 38344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3278-1	PH01	Total/NA	Solid	Total BTEX	
890-3278-2	PH01A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 37857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3278-1	PH01	Total/NA	Solid	8015B NM	37877
890-3278-2	PH01A	Total/NA	Solid	8015B NM	37877
MB 880-37877/1-A	Method Blank	Total/NA	Solid	8015B NM	37877
LCS 880-37877/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37877
LCSD 880-37877/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37877
890-3276-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	37877
890-3276-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	37877

Prep Batch: 37877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3278-1	PH01	Total/NA	Solid	8015NM Prep	
890-3278-2	PH01A	Total/NA	Solid	8015NM Prep	
MB 880-37877/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37877/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-37877/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3276-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3276-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Elk Wallow CDP
Job ID: 890-3278-1
SDG: 03E1558115

GC Semi VOA

Analysis Batch: 37993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3278-1	PH01	Total/NA	Solid	8015 NM	
890-3278-2	PH01A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 37893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3278-1	PH01	Soluble	Solid	DI Leach	_
890-3278-2	PH01A	Soluble	Solid	DI Leach	
MB 880-37893/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37893/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37893/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3277-A-2-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3277-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 38163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3278-1	PH01	Soluble	Solid	300.0	37893
890-3278-2	PH01A	Soluble	Solid	300.0	37893
MB 880-37893/1-A	Method Blank	Soluble	Solid	300.0	37893
LCS 880-37893/2-A	Lab Control Sample	Soluble	Solid	300.0	37893
LCSD 880-37893/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37893
890-3277-A-2-C MS	Matrix Spike	Soluble	Solid	300.0	37893
890-3277-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	37893

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Lab Chronicle

Client: Ensolum Job ID: 890-3278-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: PH01

Lab Sample ID: 890-3278-1

Matrix: Solid

Date Collected: 10/24/22 09:30 Date Received: 10/25/22 11:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	38104	10/28/22 13:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38211	10/31/22 23:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38344	11/01/22 09:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			37993	10/27/22 09:52	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	37877	10/26/22 11:21	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37857	10/27/22 04:36	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	37893	10/27/22 10:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38163	10/30/22 03:01	CH	EET MID

Client Sample ID: PH01A Lab Sample ID: 890-3278-2 Date Collected: 10/24/22 09:50

Date Received: 10/25/22 11:35

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	38104	10/28/22 13:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38211	10/31/22 23:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38344	11/01/22 09:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			37993	10/27/22 09:52	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	37877	10/26/22 11:21	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37857	10/27/22 04:57	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	37893	10/27/22 10:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38163	10/30/22 03:08	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3278-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	r Expiration Dat		
Texas	NI	ELAP	T104704400-22-24	06-30-23		
The following analytes the agency does not of	. ,	ut the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes fo		
Analysis Method	Prep Method	Matrix	Analyte			
8015 NM		Solid	Total TPH			

Method Summary

Job ID: 890-3278-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

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: Elk Wallow CDP

Job ID: 890-3278-1

SDG: 03E1558115

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3278-1	PH01	Solid	10/24/22 09:30	10/25/22 11:35	1'
890-3278-2	PH01A	Solid	10/24/22 09:50	10/25/22 11:35	4'

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Relinquished by: (Signature)

10/25/20

13 14

eurofins **Environment Testing** Xenco

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:

www.xenco.com

Page

Relinquished by: (Signature)	tke: Signature of this docum service. Eurofins Xenco will b Eurofins Xenco. A minimum	Total 200.7 / 6010 200.8 / 6020: ircle Method(s) and Metal(s) to be analyzed	\					PHOIB	PHOIA	PHOI	Sample Identification	otal Containers:	ample Custody Seals:	ooler Custody Seals:	amples Received Intact:	AMPLE RECEIPT		ampler's Name:	roject Location:	ær:	roject Name:	hone:	ity, State ZIP:	ddress:	ompany Name:	roject Manager:
ignature)	ent and relinquishment of s e liable only for the cost of charge of \$85.00 will be app	200.8 / 6020: d Metal(s) to be a						2	10		ation Matrix	(Yes No N/A	Yes No N/A	: (fes) No	Temp Blank:		Meredita	32.14551, -103. 96291 Due Date:	0351558115	EIK Wallow	337.257.8307	Carisbad, NM	3/A2 Natil	Ensolum, LL	Tacomo
Received by: (Signature)	amples constitutes a valid samples and shall not assi slied to each project and	8RCRA nalyzed TC			1			+	0 1 5	10/24/21	Date Sampled	Corrected Temperature:	Temperature Reading:	Correction Factor:	Thermometer ID:	(Res No	\Box	Roberts	03.962910		CDP	7.8307	80	Parks	22	Jennings
(Signature)	d purchase order fro ume any responsibl a charge of \$5 for e	RA 13PPM TCLP/SPLP						1000	0950	0930	Time D	perature:	leading:			Wet Ice:	the lab, if received by 4:30pm	TAT starts the day received by	ue Date:	Noutine [Turn Around	Email:		1- Ad		
	om client company t lity for any losses or ach sample submitte	13PPM Texas 11 Al Sb As Ba Be B LP/SPLP 6010: 8RCRA Sb As Ba Be C						6' +	4	5	Depth Comp	S. K	0.7	0	Mm-007	(Yes) No	d by 4:30pm	received by		sh	und	tmor	City, State ZIP:	Address:	Company Name:	Bill to: (if different)
Di	o Eurofins X expenses ir ed to Eurofi	I Sb As	\parallel	+	-	1		*		_ _	# of Cont			_	_	eters				Code		asse	0			_
Date/Time	enco, its af icurred by t ns Xenco, b	Ba Be	H	+				+ +		X	Ch		1	di	es	+		-				S	Carisback	3104		5
	filates and he client if ut not anah	B Cd		\perp			Ž	+		X	TP		_									nso	back	a	×	Jarrett
Relinquished by: (Signature)	itice. 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 iterms and conditions service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control 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.	13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo NTCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U					N/P	Please hold P				-	890-3278 Chain of Custody				-				ANALYSIS REQUEST	tmorrissey@ensolum.com	NM 88220	Greene St	To Energy	H Green
ture) Received by: (Signature)	rms and conditions eyond the control sss previously negotiated.	VI K Se						PHOIS					f Custody				_				JEST	Deliverables: EDD AD	Reporting: Level II Level III	State of Project:	Program: UST/PST PRP BI	Work Order Comments
ure) Date/Time		Ag SiO ₂ Na Sr Tl Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471				106,1691,001	Cost Center:		nAPP2ZZ3851434	In cident #:	Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	Na ₂ S ₂ O ₃ : NaSO ₃	NaHSO 4: NABIS	H ₃ PO ₄ : HP	H ₂ SO ₄ ; H ₂ NaOH: Na	HCL: HC HNO 3: HN	Cool: Cool MeOH: Me	None: NO DI Water: H ₂ O	Preservative Codes	ADaPT Other:	ST	-	Brownfields RRC Superfund	Comments
										Pa	ge 18	3 of	20)												

SAMPLE RECEIPT Samples Received Intact:

Sampler's Name:

Tacoma Jennings

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3278-1

SDG Number: 03E1558115

Login Number: 3278 List Source: Eurofins Carlsbad

List Number: 1 Creator: Stutzman, Amanda

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

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<6mm (1/4").

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3278-1 SDG Number: 03E1558115

Login Number: 3278 **List Source: Eurofins Midland** List Number: 2

List Creation: 10/26/22 10:29 AM

Creator: Rodriguez, Leticia

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

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3279-1

Laboratory Sample Delivery Group: 03E1558115

Client Project/Site: Elk Wallow CDP

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

Authorized for release by: 11/1/2022 1:13:27 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

------ LINKS ------**Review your project** results through EOL **Have a Question?**

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/3/2023 9:40:16 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: Elk Wallow CDP
Laboratory Job ID: 890-3279-1
SDG: 03E1558115

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Definitions/Glossary

Job ID: 890-3279-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

LCS and/or LCSD is outside acceptance limits, high biased.

*1 LCS/LCSD RPD exceeds control limits.

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

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

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

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

DFR Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

Decision Level Concentration (Radiochemistry) DLC

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

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

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

NC Not Calculated

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

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

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: Elk Wallow CDP

Job ID: 890-3279-1

SDG: 03E1558115

Job ID: 890-3279-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3279-1

Receipt

The samples were received on 10/25/2022 11:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-3279-1), FS02 (890-3279-2), FS03 (890-3279-3), SW01 (890-3279-4) and SW02 (890-3279-5).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-37877 and analytical batch 880-37857 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCSD 880-37877/3-A) and (MB 880-37877/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

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Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: FS01 Lab Sample ID: 890-3279-1 Matrix: Solid

Date Collected: 10/24/22 15:05 Date Received: 10/25/22 11:35

Sample Depth: 3'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/27/22 15:09	11/01/22 03:36	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/27/22 15:09	11/01/22 03:36	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/27/22 15:09	11/01/22 03:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/27/22 15:09	11/01/22 03:36	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/27/22 15:09	11/01/22 03:36	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/27/22 15:09	11/01/22 03:36	,
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	110		70 - 130			10/27/22 15:09	11/01/22 03:36	1
1,4-Difluorobenzene (Surr)	102		70 - 130			10/27/22 15:09	11/01/22 03:36	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/01/22 13:51	
		ics (DRO) (Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fa
Method: SW846 8015 NM - Diese Analyte		, , ,	•	Unit	D	Prepared	Analyzed	Dil Fac
		, , ,	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 10/27/22 09:52	
Analyte Total TPH	Result 59.5	Qualifier	49.8		<u>D</u>	Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies	Result 59.5 sel Range Orga	Qualifier nics (DRO) Qualifier	49.8		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result 59.5 sel Range Orga	Qualifier nics (DRO)	RL 49.8	mg/Kg			10/27/22 09:52	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 59.5 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 49.8 (GC)	mg/Kg		Prepared	10/27/22 09:52 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result 59.5 sel Range Orga Result <49.8	Qualifier nics (DRO) Qualifier U *+ *1	RL 49.8 (GC) RL 49.8	mg/Kg Unit mg/Kg		Prepared 10/26/22 11:21	10/27/22 09:52 Analyzed 10/27/22 05:19	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 59.5 sel Range Orga Result <49.8 59.5	Qualifier nics (DRO) Qualifier U *+ *1	RL 49.8 (GC) RL 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/26/22 11:21 10/26/22 11:21	10/27/22 09:52 Analyzed 10/27/22 05:19 10/27/22 05:19	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 59.5 sel Range Orga Result < 49.8 59.5 49.8	Qualifier nics (DRO) Qualifier U *+ *1	RL 49.8 (GC) RL 49.8 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/26/22 11:21 10/26/22 11:21	Analyzed 10/27/22 05:19 10/27/22 05:19 10/27/22 05:19	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier nics (DRO) Qualifier U *+ *1	RL 49.8 (GC) RL 49.8 49.8 49.8 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/26/22 11:21 10/26/22 11:21 10/26/22 11:21 Prepared	Analyzed 10/27/22 09:52 Analyzed 10/27/22 05:19 10/27/22 05:19 10/27/22 05:19 Analyzed	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier nics (DRO) Qualifier U *+ *1 U Qualifier	RL 49.8 (GC) RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 10/26/22 11:21 10/26/22 11:21 10/26/22 11:21 Prepared 10/26/22 11:21	Analyzed 10/27/22 05:19 10/27/22 05:19 10/27/22 05:19 Analyzed 10/27/22 05:19	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier nics (DRO) Qualifier U *+ *1 U Qualifier	RL 49.8 (GC) RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 10/26/22 11:21 10/26/22 11:21 10/26/22 11:21 Prepared 10/26/22 11:21	Analyzed 10/27/22 05:19 10/27/22 05:19 10/27/22 05:19 Analyzed 10/27/22 05:19	Dil Fac

Client Sample ID: FS02 Lab Sample ID: 890-3279-2

Date Collected: 10/24/22 15:00 Date Received: 10/25/22 11:35

Sample Depth: 3'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/27/22 15:09	11/01/22 03:56	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/27/22 15:09	11/01/22 03:56	1
Ethylbenzene	0.00324		0.00198	mg/Kg		10/27/22 15:09	11/01/22 03:56	1
m-Xylene & p-Xylene	0.00425		0.00397	mg/Kg		10/27/22 15:09	11/01/22 03:56	1
o-Xylene	0.00517		0.00198	mg/Kg		10/27/22 15:09	11/01/22 03:56	1
Xylenes, Total	0.00942		0.00397	mg/Kg		10/27/22 15:09	11/01/22 03:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130			10/27/22 15:09	11/01/22 03:56	1

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Matrix: Solid

Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: FS02 Lab Sample ID: 890-3279-2 Matrix: Solid

Date Collected: 10/24/22 15:00 Date Received: 10/25/22 11:35 Sample Depth: 3'

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

%Recovery Qualifier Limits Prepared Surrogate Analyzed Dil Fac 70 - 130 10/27/22 15:09 1,4-Difluorobenzene (Surr) 99 11/01/22 03:56

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte Result Qualifier RL Unit D Analyzed Dil Fac Prepared 0.00397 11/01/22 13:51 **Total BTEX** 0.0127 mg/Kg

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

Result Qualifier RL Unit D Prepared Analyzed Dil Fac **Total TPH** 49.9 mg/Kg 10/27/22 09:52 158

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

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac <49.9 U *+ *1 49.9 Gasoline Range Organics mg/Kg 10/26/22 11:21 10/27/22 05:40 (GRO)-C6-C10 49.9 mg/Kg 10/26/22 11:21 10/27/22 05:40 **Diesel Range Organics (Over** 158 C10-C28) OII Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 10/26/22 11:21 10/27/22 05:40

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 88 70 - 130 10/26/22 11:21 10/27/22 05:40 10/27/22 05:40 o-Terphenyl 104 70 - 130 10/26/22 11:21

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 5.04 10/30/22 03:34 Chloride 24.7 mg/Kg

Lab Sample ID: 890-3279-3 **Client Sample ID: FS03**

Date Collected: 10/24/22 15:40 Date Received: 10/25/22 11:35

Sample Depth: 3'

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

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 mg/Kg 10/27/22 15:09 11/01/22 04:17 Toluene <0.00200 U 0.00200 10/27/22 15:09 11/01/22 04:17 mg/Kg Ethylbenzene <0.00200 U 0.00200 10/27/22 15:09 11/01/22 04:17 mg/Kg 0.00400 11/01/22 04:17 m-Xylene & p-Xylene <0.00400 U 10/27/22 15:09 mg/Kg o-Xylene <0.00200 U 0.00200 mg/Kg 10/27/22 15:09 11/01/22 04:17 Xylenes, Total <0.00400 U 0.00400 mg/Kg 10/27/22 15:09 11/01/22 04:17 %Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed

70 - 130 10/27/22 15:09 4-Bromofluorobenzene (Surr) 103 11/01/22 04:17 1,4-Difluorobenzene (Surr) 90 70 - 130 10/27/22 15:09 11/01/22 04:17

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte Result Qualifier RL D Dil Fac Unit Prepared Analyzed <0.00400 Total BTEX 0.00400 11/01/22 13:51 mg/Kg

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

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac **Total TPH** 49.9 mg/Kg 10/31/22 13:36 **59.8**

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Matrix: Solid

Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: FS03 Lab Sample ID: 890-3279-3

Date Collected: 10/24/22 15:40 Matrix: Solid Date Received: 10/25/22 11:35

Sample Depth: 3'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/27/22 13:56	10/30/22 05:48	1
Diesel Range Organics (Over C10-C28)	59.8		49.9	mg/Kg		10/27/22 13:56	10/30/22 05:48	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/27/22 13:56	10/30/22 05:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130			10/27/22 13:56	10/30/22 05:48	1
o-Terphenyl	96		70 - 130			10/27/22 13:56	10/30/22 05:48	1
Method: MCAWW 300.0 - Anions	, Ion Chromato	ography - So	oluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: SW01 Lab Sample ID: 890-3279-4

Date Collected: 10/24/22 12:50 Matrix: Solid

Date Received: 10/25/22 11:35

Released to Imaging: 2/3/2023 9:40:16 AM

Sample Depth: 0-3'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	11/01/22 04:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	11/01/22 04:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	11/01/22 04:37	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/27/22 15:09	11/01/22 04:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	11/01/22 04:37	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/27/22 15:09	11/01/22 04:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			10/27/22 15:09	11/01/22 04:37	1
1,4-Difluorobenzene (Surr)	95		70 - 130			10/27/22 15:09	11/01/22 04:37	1
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/01/22 13:51	1
- Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/31/22 13:36	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
	•	nics (DRO) Qualifier	(GC)	Unit	D	Prepared	Analyzed	Dil Fac
	•	Qualifier	• •	Unit mg/Kg	<u>D</u>	Prepared 10/27/22 13:56	Analyzed 10/30/22 06:10	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	Qualifier U	RL		<u>D</u>			
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)		Qualifier U	RL 49.9	mg/Kg	<u>D</u>	10/27/22 13:56	10/30/22 06:10	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.9	Qualifier U U U	49.9 49.9	mg/Kg	<u>D</u>	10/27/22 13:56 10/27/22 13:56	10/30/22 06:10 10/30/22 06:10	1 1
	Result <49.9 <49.9 <49.9	Qualifier U U U	49.9 49.9 49.9	mg/Kg	<u> </u>	10/27/22 13:56 10/27/22 13:56 10/27/22 13:56	10/30/22 06:10 10/30/22 06:10 10/30/22 06:10	1

Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SW01 Lab Sample ID: 890-3279-4 Date Collected: 10/24/22 12:50

Matrix: Solid

Date Received: 10/25/22 11:35 Sample Depth: 0-3'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	37.6		5.02	mg/Kg			10/30/22 03:48	1		

Client Sample ID: SW02 Lab Sample ID: 890-3279-5

Date Collected: 10/24/22 15:10 Date Received: 10/25/22 11:35

Sample Depth: 0-3'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	11/01/22 04:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	11/01/22 04:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	11/01/22 04:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/27/22 15:09	11/01/22 04:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	11/01/22 04:57	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/27/22 15:09	11/01/22 04:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130			10/27/22 15:09	11/01/22 04:57	1
1,4-Difluorobenzene (Surr)	75		70 - 130			10/27/22 15:09	11/01/22 04:57	1

Method: TAL SOP Total BTEX - Tot	lethod: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/01/22 13:51	1		

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	<49.9	U	49.9	mg/Kg			10/31/22 13:36	1

Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/27/22 13:56	10/30/22 06:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/27/22 13:56	10/30/22 06:31	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/27/22 13:56	10/30/22 06:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130			10/27/22 13:56	10/30/22 06:31	1
o-Terphenyl	90		70 - 130			10/27/22 13:56	10/30/22 06:31	1

Method: MCAWW 300.0 - Anions, I	on Chromatography	- Soluble					
Analyte	Result Qualifie	r RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.1	5.02	mg/Kg			10/30/22 03:54	1

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Matrix: Solid

Surrogate Summary

Client: Ensolum Job ID: 890-3279-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

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)	
890-3268-A-1-C MS	Matrix Spike	99	107	
890-3268-A-1-D MSD	Matrix Spike Duplicate	108	98	
890-3279-1	FS01	110	102	
890-3279-2	FS02	118	99	
890-3279-3	FS03	103	90	
890-3279-4	SW01	100	95	
890-3279-5	SW02	87	75	
LCS 880-38031/1-A	Lab Control Sample	93	107	
LCSD 880-38031/2-A	Lab Control Sample Dup	100	110	
MB 880-38031/5-A	Method Blank	82	96	
MB 880-38226/5-A	Method Blank	83	90	
Surrogate Legend				

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Rec
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3276-A-21-B MS	Matrix Spike	82	84	
890-3276-A-21-C MSD	Matrix Spike Duplicate	98	97	
890-3279-1	FS01	82	95	
890-3279-2	FS02	88	104	
890-3279-3	FS03	84	96	
890-3279-4	SW01	89	102	
890-3279-5	SW02	78	90	
890-3285-A-1-C MS	Matrix Spike	76	81	
890-3285-A-1-D MSD	Matrix Spike Duplicate	88	89	
LCS 880-37877/2-A	Lab Control Sample	97	118	
LCS 880-38023/2-A	Lab Control Sample	105	124	
LCSD 880-37877/3-A	Lab Control Sample Dup	117	137 S1+	
LCSD 880-38023/3-A	Lab Control Sample Dup	103	120	
MB 880-37877/1-A	Method Blank	121	146 S1+	
MB 880-38023/1-A	Method Blank	79	91	
Surrogate Legend				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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3

5

R

10

QC Sample Results

Client: Ensolum Job ID: 890-3279-1 SDG: 03E1558115 Project/Site: Elk Wallow CDP

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38031/5-A

Matrix: Solid Analysis Batch: 38213 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38031

	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/27/22 15:09	10/31/22 22:08	1

MB MB

Surrogate	%Recovery Qua	ıalifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82	70 - 130	10/27/22 15:09	10/31/22 22:08	1
1,4-Difluorobenzene (Surr)	96	70 - 130	10/27/22 15:09	10/31/22 22:08	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 38031

Prep Type: Total/NA

Prep Batch: 38031

Lab Sample ID: LCS 880-38031/1-A **Matrix: Solid**

Analysis Batch: 38213

Spike	LCS	LCS				%Rec
Added	Result	Qualifier	Unit	D	%Rec	Limits
0.100	0.1082		mg/Kg		108	70 - 130
0.100	0.09302		mg/Kg		93	70 - 130
0.100	0.09102		mg/Kg		91	70 - 130
0.200	0.1840		mg/Kg		92	70 - 130
0.100	0.09049		mg/Kg		90	70 - 130
	Added 0.100 0.100 0.100 0.100 0.200	Added Result 0.100 0.1082 0.100 0.09302 0.100 0.09102 0.200 0.1840	Added Result Qualifier 0.100 0.1082 0.100 0.09302 0.100 0.09102 0.200 0.1840	Added Result Qualifier Unit 0.100 0.1082 mg/Kg 0.100 0.09302 mg/Kg 0.100 0.09102 mg/Kg 0.200 0.1840 mg/Kg	Added Result Qualifier Unit D 0.100 0.1082 mg/Kg 0.100 0.09302 mg/Kg 0.100 0.09102 mg/Kg 0.200 0.1840 mg/Kg	Added Result Qualifier Unit D %Rec 0.100 0.1082 mg/Kg 108 0.100 0.09302 mg/Kg 93 0.100 0.09102 mg/Kg 91 0.200 0.1840 mg/Kg 92

LCS LCS

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

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 38213

Lab Sample ID: LCSD 880-38031/2-A

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1111		mg/Kg		111	70 - 130	3	35	
Toluene	0.100	0.09423		mg/Kg		94	70 - 130	1	35	
Ethylbenzene	0.100	0.09258		mg/Kg		93	70 - 130	2	35	
m-Xylene & p-Xylene	0.200	0.1885		mg/Kg		94	70 - 130	2	35	
o-Xylene	0.100	0.09300		mg/Kg		93	70 - 130	3	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1.4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-3268-A-1-C MS

Matrix: Solid

Analysis Batch: 38213

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

Prep Batch: 38031

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.0990	0.09422		mg/Kg		95	70 - 130	
Toluene	<0.00201	U	0.0990	0.07942		mg/Kg		80	70 - 130	

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Prep Batch: 38031

Prep Type: Total/NA

QC Sample Results

Job ID: 890-3279-1 Client: Ensolum Project/Site: Elk Wallow CDP SDG: 03E1558115

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

Lab Sample ID: 890-3268-A-1-C MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid Analysis Batch: 38213

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U	0.0990	0.07601		mg/Kg		77	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1531		mg/Kg		77	70 - 130	
o-Xylene	<0.00201	U	0.0990	0.07420		mg/Kg		75	70 - 130	

MS MS

Surrogate	%Recovery Qua	lifier Limits
4-Bromofluorobenzene (Surr)	99	70 - 130
1,4-Difluorobenzene (Surr)	107	70 - 130

Lab Sample ID: 890-3268-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 38213										Batch:	38031
	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	0.08003		mg/Kg		81	70 - 130	16	35
Toluene	<0.00201	U	0.0990	0.07421		mg/Kg		74	70 - 130	7	35
Ethylbenzene	<0.00201	U	0.0990	0.08163		mg/Kg		82	70 - 130	7	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1632		mg/Kg		82	70 - 130	6	35
o-Xylene	<0.00201	U	0.0990	0.07909		mg/Kg		80	70 - 130	6	35

MSD MSD

MB MB

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: MB 880-38226/5-A

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Method	Biank
Prep Type: To	al/NA
Prep Batch:	38226

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 mg/Kg 10/31/22 09:37 10/31/22 11:33 Toluene <0.00200 U 0.00200 10/31/22 09:37 10/31/22 11:33 mg/Kg Ethylbenzene <0.00200 U 0.00200 mg/Kg 10/31/22 09:37 10/31/22 11:33 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 10/31/22 09:37 10/31/22 11:33 10/31/22 09:37 10/31/22 11:33 o-Xylene <0.00200 U 0.00200 mg/Kg Xylenes, Total <0.00400 U 0.00400 mg/Kg 10/31/22 09:37 10/31/22 11:33

MB MB Qualifier Dil Fac Limits Prepared Surrogate %Recovery Analyzed 4-Bromofluorobenzene (Surr) 83 70 - 130 10/31/22 09:37 10/31/22 11:33 10/31/22 09:37 1,4-Difluorobenzene (Surr) 90 70 - 130 10/31/22 11:33

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

Lab Sample ID: MB 880-37877/1-A

Matrix: Solid

Analysis Batch: 37857

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 37877

MB MB Result Qualifier RL Unit Prepared Gasoline Range Organics <50.0 U 50.0 mg/Kg 10/26/22 11:21 10/26/22 20:49

(GRO)-C6-C10

Client: Ensolum Job ID: 890-3279-1 SDG: 03E1558115 Project/Site: Elk Wallow CDP

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

Lab Sample ID: MB 880-37877/1-A **Matrix: Solid**

Lab Sample ID: LCS 880-37877/2-A

Analysis Batch: 37857

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

Prep Batch: 37877

	IND	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/26/22 11:21	10/26/22 20:49	1
C10-C28) OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/26/22 11:21	10/26/22 20:49	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	10/26/22 11:21	10/26/22 20:49	1
o-Terphenyl	146	S1+	70 - 130	10/26/22 11:21	10/26/22 20:49	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37877

	Spike	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier	Unit D	%Rec	Limits	
Gasoline Range Organics	1000	1077		mg/Kg	108	70 - 130	
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	1003		mg/Kg	100	70 - 130	
C10-C28)							

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: LCSD 880-37877/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Matrix: Solid

Analysis Batch: 37857

Analysis Batch: 37857

Prep Type: Total/NA Prep Batch: 37877

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	1328	*+ *1	mg/Kg		133	70 - 130	21	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	1159		mg/Kg		116	70 - 130	14	20	
C10-C28)										

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 117 70 - 130 o-Terphenyl 137 S1+ 70 - 130

Lab Sample ID: 890-3276-A-21-B MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 37857

Prep Type: Total/NA Prep Batch: 37877

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.8	U *+ *1	998	1122		mg/Kg		110	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.8	U	998	938.0		mg/Kg		94	70 - 130	
C10-C28\										

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 _ 130
o-Terphenyl	84		70 - 130

Client: Ensolum Job ID: 890-3279-1 Project/Site: Elk Wallow CDP

SDG: 03E1558115

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

Lab Sample ID: 890-3276-A-21-C MSD

Matrix: Solid

Analysis Batch: 37857

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 37877

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.8	U *+ *1	998	937.6		mg/Kg		91	70 - 130	18	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.8	U	998	1117		mg/Kg		112	70 - 130	17	20

C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: MB 880-38023/1-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 38137

Prep Type: Total/NA

Prep Batch: 38023 MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/27/22 13:56	10/29/22 21:37	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/27/22 13:56	10/29/22 21:37	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/27/22 13:56	10/29/22 21:37	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130	10/27/22 13:56	10/29/22 21:37	1
o-Terphenyl	91		70 - 130	10/27/22 13:56	10/29/22 21:37	1

Lab Sample ID: LCS 880-38023/2-A

Matrix: Solid

Analysis Batch: 38137

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

Prep Batch: 38023

	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	1000	847.8	-	mg/Kg		85	70 - 130	 	
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	748.0		mg/Kg		75	70 - 130		
C10-C28)									

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	124		70 - 130

Lab Sample ID: LCSD 880-38023/3-A

Matrix: Solid

Analysis Batch: 38137

Prep Type: Total/NA

Prep Batch: 38023

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	784.5		mg/Kg		78	70 - 130	8	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	738.0		mg/Kg		74	70 - 130	1	20	
C10-C28)										

Job ID: 890-3279-1 Client: Ensolum Project/Site: Elk Wallow CDP

SDG: 03E1558115

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

Lab Sample ID: LCSD 880-38023/3-A

Matrix: Solid

Analysis Batch: 38137

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38023

LCSD LCSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 103 70 - 130 o-Terphenyl 120 70 - 130

Lab Sample ID: 890-3285-A-1-C MS Client Sample ID: Matrix Spike

Analysis Batch: 38137

Matrix: Solid Prep Type: Total/NA

Prep Batch: 38023

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits <49.8 Ū 998 927 7 90 70 - 130Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 80.1 998 808.7 mg/Kg 73 70 - 130C10-C28)

MS MS %Recovery Surrogate Qualifier Limits 76 70 - 130 1-Chlorooctane 81 70 - 130 o-Terphenyl

Lab Sample ID: 890-3285-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 38137

Prep Type: Total/NA

Prep Batch: 38023

Sample Sample Spike MSD MSD RPD Analyte Result Qualifier hahhA Result Qualifier Unit %Rec Limits RPD Limit D Gasoline Range Organics <49.8 U 998 824.7 mg/Kg 80 70 - 130 12 20 (GRO)-C6-C10 Diesel Range Organics (Over 80.1 998 921.4 mg/Kg 84 70 - 130 13 20 C10-C28)

MSD MSD %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 88 70 - 130 o-Terphenyl 89

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37893/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 38163

MB MB Dil Fac Result Qualifier RL Unit D Prepared Analyzed <5.00 U 5.00 mg/Kg 10/30/22 00:48

Lab Sample ID: LCS 880-37893/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analyte

Chloride

Analysis Batch: 38163

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	262.4		mg/Kg		105	90 - 110	

QC Sample Results

Client: Ensolum Job ID: 890-3279-1 Project/Site: Elk Wallow CDP

SDG: 03E1558115

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-37893/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 38163

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	262.8		mg/Kg		105	90 - 110	0	20	

Lab Sample ID: 890-3277-A-2-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble Matrix: Solid**

Analysis Batch: 38163

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	24.5		251	290.5		mg/Kg		106	90 - 110	

Lab Sample ID: 890-3277-A-2-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Soluble

Analysis Batch: 38163

MSD MSD %Rec RPD Sample Sample Spike Result Qualifier Added Limit Analyte Result Qualifier Unit Limits **RPD** Chloride 24.5 251 290.9 106 90 - 110 mg/Kg

QC Association Summary

Client: Ensolum Job ID: 890-3279-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

GC VOA

Prep Batch: 38031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3279-1	FS01	Total/NA	Solid	5035	
890-3279-2	FS02	Total/NA	Solid	5035	
890-3279-3	FS03	Total/NA	Solid	5035	
890-3279-4	SW01	Total/NA	Solid	5035	
890-3279-5	SW02	Total/NA	Solid	5035	
MB 880-38031/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38031/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38031/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3268-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3268-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 38213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3279-1	FS01	Total/NA	Solid	8021B	38031
890-3279-2	FS02	Total/NA	Solid	8021B	38031
890-3279-3	FS03	Total/NA	Solid	8021B	38031
890-3279-4	SW01	Total/NA	Solid	8021B	38031
890-3279-5	SW02	Total/NA	Solid	8021B	38031
MB 880-38031/5-A	Method Blank	Total/NA	Solid	8021B	38031
MB 880-38226/5-A	Method Blank	Total/NA	Solid	8021B	38226
LCS 880-38031/1-A	Lab Control Sample	Total/NA	Solid	8021B	38031
LCSD 880-38031/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38031
890-3268-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	38031
890-3268-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38031

Prep Batch: 38226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38226/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 38408

Lab Sample ID 890-3279-1	Client Sample ID FS01	Prep Type Total/NA	Solid	Method Total BTEX	Prep Batch
890-3279-2	FS02	Total/NA	Solid	Total BTEX	
890-3279-3	FS03	Total/NA	Solid	Total BTEX	
890-3279-4	SW01	Total/NA	Solid	Total BTEX	
890-3279-5	SW02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 37857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3279-1	FS01	Total/NA	Solid	8015B NM	37877
890-3279-2	FS02	Total/NA	Solid	8015B NM	37877
MB 880-37877/1-A	Method Blank	Total/NA	Solid	8015B NM	37877
LCS 880-37877/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37877
LCSD 880-37877/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37877
890-3276-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	37877
890-3276-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	37877

QC Association Summary

Client: Ensolum

Project/Site: Elk Wallow CDP

Job ID: 890-3279-1 SDG: 03E1558115

GC Semi VOA

Prep Batch: 37877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3279-1	FS01	Total/NA	Solid	8015NM Prep	
890-3279-2	FS02	Total/NA	Solid	8015NM Prep	
MB 880-37877/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37877/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-37877/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3276-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3276-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 37994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3279-1	FS01	Total/NA	Solid	8015 NM	
890-3279-2	FS02	Total/NA	Solid	8015 NM	
890-3279-3	FS03	Total/NA	Solid	8015 NM	
890-3279-4	SW01	Total/NA	Solid	8015 NM	
890-3279-5	SW02	Total/NA	Solid	8015 NM	

Prep Batch: 38023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3279-3	FS03	Total/NA	Solid	8015NM Prep	
890-3279-4	SW01	Total/NA	Solid	8015NM Prep	
890-3279-5	SW02	Total/NA	Solid	8015NM Prep	
MB 880-38023/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38023/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38023/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3285-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3285-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3279-3	FS03	Total/NA	Solid	8015B NM	38023
890-3279-4	SW01	Total/NA	Solid	8015B NM	38023
890-3279-5	SW02	Total/NA	Solid	8015B NM	38023
MB 880-38023/1-A	Method Blank	Total/NA	Solid	8015B NM	38023
LCS 880-38023/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38023
LCSD 880-38023/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38023
890-3285-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	38023
890-3285-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38023

HPLC/IC

Leach Batch: 37893

Released to Imaging: 2/3/2023 9:40:16 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3279-1	FS01	Soluble	Solid	DI Leach	
890-3279-2	FS02	Soluble	Solid	DI Leach	
890-3279-3	FS03	Soluble	Solid	DI Leach	
890-3279-4	SW01	Soluble	Solid	DI Leach	
890-3279-5	SW02	Soluble	Solid	DI Leach	
MB 880-37893/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37893/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37893/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3277-A-2-C MS	Matrix Spike	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Elk Wallow CDP
Job ID: 890-3279-1
SDG: 03E1558115

HPLC/IC (Continued)

Leach Batch: 37893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3277-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 38163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3279-1	FS01	Soluble	Solid	300.0	37893
890-3279-2	FS02	Soluble	Solid	300.0	37893
890-3279-3	FS03	Soluble	Solid	300.0	37893
890-3279-4	SW01	Soluble	Solid	300.0	37893
890-3279-5	SW02	Soluble	Solid	300.0	37893
MB 880-37893/1-A	Method Blank	Soluble	Solid	300.0	37893
LCS 880-37893/2-A	Lab Control Sample	Soluble	Solid	300.0	37893
LCSD 880-37893/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37893
890-3277-A-2-C MS	Matrix Spike	Soluble	Solid	300.0	37893
890-3277-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	37893

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Job ID: 890-3279-1

SDG: 03E1558115

Client Sample ID: FS01 Date Collected: 10/24/22 15:05

Lab Sample ID: 890-3279-1

Date Received: 10/25/22 11:35

Project/Site: Elk Wallow CDP

Client: Ensolum

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	38031	10/27/22 15:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38213	11/01/22 03:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38408	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			37994	10/27/22 09:52	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	37877	10/26/22 11:21	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37857	10/27/22 05:19	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	37893	10/27/22 10:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38163	10/30/22 03:28	CH	EET MID

Client Sample ID: FS02 Lab Sample ID: 890-3279-2

Date Collected: 10/24/22 15:00 Matrix: Solid

Date Received: 10/25/22 11:35

Lab

EET MID

EET MID

EET MID

Dil Final Batch Batch Initial Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed **Analyst** Total/NA Prep 5035 5.04 g 5 mL 38031 10/27/22 15:09 MNR 8021B 11/01/22 03:56 Total/NA Analysis 1 5 mL 5 mL 38213 MNR 11/01/22 13:51 Total/NA Total BTEX Analysis 38408 A.I 1

Total/NA Analysis 8015 NM 37994 10/27/22 09:52 **EET MID** Total/NA 8015NM Prep 10.02 g 10 mL 37877 10/26/22 11:21 DM **EET MID** Prep Total/NA Analysis 8015B NM 1 uL 1 uL 37857 10/27/22 05:40 SM **EET MID** Soluble 50 mL 37893 DI Leach 4.96 g 10/27/22 10:30 SMC EET MID Leach Soluble Analysis 300.0 50 mL 50 mL 38163 10/30/22 03:34 СН **EET MID**

Client Sample ID: FS03 Lab Sample ID: 890-3279-3 Date Collected: 10/24/22 15:40

Date Received: 10/25/22 11:35

Dil Batch Batch Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 5035 5.00 g 5 mL 38031 10/27/22 15:09 MNR **EET MID** Total/NA Analysis 8021B 5 mL 5 mL 38213 11/01/22 04:17 MNR **EET MID** Total/NA Total BTEX 38408 11/01/22 13:51 **EET MID** Analysis 1 A.I Total/NA Analysis 8015 NM 37994 10/31/22 13:36 ΑJ **EET MID** Total/NA Prep 8015NM Prep 10.03 g 10 mL 38023 10/27/22 13:56 DM **EET MID** Total/NA 8015B NM 38137 10/30/22 05:48 Analysis 1 uL 1 uL AJ **EET MID** Soluble DI Leach 5.02 g 50 mL 37893 10/27/22 10:30 SMC EET MID Leach Soluble Analysis 300.0 50 mL 50 mL 38163 10/30/22 03:41 СН **EET MID**

Client Sample ID: SW01 Lab Sample ID: 890-3279-4

Date Collected: 10/24/22 12:50 Date Received: 10/25/22 11:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	38031	10/27/22 15:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38213	11/01/22 04:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38408	11/01/22 13:51	AJ	EET MID

Eurofins Carlsbad

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Matrix: Solid

Matrix: Solid

Client: Ensolum

Job ID: 890-3279-1 Project/Site: Elk Wallow CDP SDG: 03E1558115

Client Sample ID: SW01 Lab Sample ID: 890-3279-4

Matrix: Solid

Date Collected: 10/24/22 12:50 Date Received: 10/25/22 11:35

	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	_		37994	10/31/22 13:36	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	38023	10/27/22 13:56	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38137	10/30/22 06:10	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	37893	10/27/22 10:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38163	10/30/22 03:48	CH	EET MID

Client Sample ID: SW02 Lab Sample ID: 890-3279-5

Date Collected: 10/24/22 15:10 Matrix: Solid

Date Received: 10/25/22 11:35

	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	38031	10/27/22 15:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38213	11/01/22 04:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38408	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			37994	10/31/22 13:36	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	38023	10/27/22 13:56	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38137	10/30/22 06:31	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	37893	10/27/22 10:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38163	10/30/22 03:54	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3279-1 Project/Site: Elk Wallow CDP

SDG: 03E1558115

Laboratory: Eurofins Midland

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

Authority		rogram	Identification Number	Expiration Date	
Texas		ELAP	T104704400-22-24	06-30-23	
The following analytes the agency does not of		ut the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes fo	
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		
Total BTEX		Solid	Total BTEX		

Method Summary

Client: Ensolum Job ID: 890-3279-1
Project/Site: Elk Wallow CDP SDG: 03E1558115

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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FS01

FS02

FS03

SW01

SW02

Client Sample ID

Sample Summary

Collected

10/24/22 15:05

10/24/22 15:00

10/24/22 15:40

10/24/22 12:50

10/24/22 15:10

Received

10/25/22 11:35

10/25/22 11:35

10/25/22 11:35

10/25/22 11:35

10/25/22 11:35 0-3'

0-3'

Matrix

Solid

Solid

Solid

Solid

Solid

Client: Ensolum

Lab Sample ID

890-3279-1

890-3279-2

890-3279-3

890-3279-4

890-3279-5

Project/Site: Elk Wallow CDP

Job ID: 890-3279-1

SDG: 03E1558115

Depth	
3'	
3'	
3'	

4

9

10

12

13

service. Eurofins Xenco will be liable only fo

ice: Signature of this document and reling

megan

\$ COCK

odselo:

Relinquished by: (Signature) ofins Xenco. A minimum charge of \$85 Circle Method(s) and Metal(

Total 200.7 / 6010

eurofins : Xenco **Environment Testing**

Chain of Custody

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

Carisbad, NM 88220	City, S	Tare ZIP: Carisback, NRI of	0770	Deliverables: EDD ADaPT Other:	Other:
FIK WALLOW CAP	Arounc		ANALYSIS REQUEST	Pre	Preservative Codes
361558119	sh	Pres.		None: NO	O DI Water: H ₂ O
32.14551,-103 96291	Due Date:			Cool: Cool	MeOH: Me
Meredith Roberts	TAT starts the day received by the lab, if received by 4:30pm			HCL: HC	HNO ₃ ; HN
Temp Blank: (Yes) No	Wet Ice: Kas No	eters		H₃PO₄;HP	₽P
ct: (Yes) No Thermometer ID:	er ID:	ram		NaHSO 4: NABIS	NABIS
Yes NO NA		Pa		Na ₂ S ₂ O ₃ : NaSO	NaSO 3
No	re Reading:	àd	890-3279 Chain of Custody	Zn Aceta	Zn Acetate+NaOH: Zn
	Corrected Temperature: 5,8	ov:		NaOH+A	NaOH+Ascorbic Acid: SAPC
fication Matrix Date	Time Depth Grab/ s	Chi Br		Sar	Sample Comments
S 10/24/22	10/14/12 1505 31 C	_ X X		Incid	ncident #
	1500 3'			nApp	nAPP 222 38 31 434
	1540 3'				
	1250 0-31			Cost	Center
+	1510 0-31 4	ナトナナ		101	1067691001
		1	7		
200.8 / 6020: 8R	8RCRA 13PPM Texas 11 Al	Al Sb As Ba Be B Cd	Ca Cr Co Cu Fe Pb Mg Mn Mo Ni	K Se /	J V Zn
ind Metal(s) to be analyzed	TCLP / SPLP 6010 : 8RCR	A Sb As Ba Be Cd Ci	TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		7471
ment and relinquishment of samples constitutes a voe liable only for the cost of samples and shall not a charge of 885,00 will be applied to each project and shall not a charge of 885,00 will be applied to each project and the same of 885,00 will be applied to each project and 885,00 will be app	valld purchase order from client company to assume any responsibility for any losses or e nd a charge of \$5 for each sample submitter	> Eurofins Xenco, its affiliates and su expenses incurred by the client if sure its Eurofins Xenco, but not analyze	ment 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 the liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control and the control of the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control and the control of the cost of t	ons rol egotiated.	
(Signature) Received b	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time

SAMPLE RECEIPT

Cooler Custody Seals:

mples Received Intact:

ample Custody Seals:

Fotal Containers:

Sample Identification

F502 F503 105-

SW02 SWOI Sampler's Name:

oject Location:

Project Number: Project Name: City, State ZIP:

ddress:

3122 Nat'I Parks

FMH

Project Manager

Tacoma

Mornsscy

Bill to: (if different)

Garrett Green Energy

Company Name:

3/04

Greene

Program: State of Project:

UST/PST PRP Brownfields

RRC

Superfund

www.xenco.com

Page

of

Work Order Comments

Reporting: Level II | Level III | PST/UST | TRRP | Level IV |

Ensolum

Company Name

Work Order No:

levised Date: 08/25/2020 Rev. 2020.2

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3279-1

SDG Number: 03E1558115

Login Number: 3279 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3279-1 SDG Number: 03E1558115

List Source: Eurofins Midland

Login Number: 3279 List Number: 2 List Creation: 10/26/22 10:29 AM

Creator: Rodriguez, Leticia

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



APPENDIX E

NMOCD Notifications

From: Green, Garrett J

To: <u>Tacoma Morrissey</u>; <u>Kalei Jennings</u>; <u>Ben Belill</u>

Subject: FW: XTO - 48 Hour Liner Inspection Notification - Elk Wallow CDP - Incident Number nAPP2223831434

Date: Friday, October 21, 2022 11:32:55 AM

[**EXTERNAL EMAIL**]

From: Foust, Bryan Jacob

Sent: Friday, October 21, 2022 11:28 AM

To: ocd.enviro@emnrd.nm.gov; Robert.Hamlet@emnrd.nm.gov; Bratcher, Michael, EMNRD

<mike.bratcher@emnrd.nm.gov>

Cc: Green, Garrett J <garrett.green@exxonmobil.com>; DelawareSpills /SM

<DelawareSpills@exxonmobil.com>

Subject: XTO - 48 Hour Liner Inspection Notification - Elk Wallow CDP - Incident Number

nAPP2223831434

Good afternoon,

This is sent as a 48-hour notification, XTO is scheduled to inspect the lined containment at Elk Wallow CDP (Incident Number nAPP2223831434) on Monday, October 24, 2022, at 2:30 pm MST. Please call us with any questions or concerns.

GPS Coordinates: (32.14551, -103.96291)

Thank you,

Jake Foust SSHE Coordinator (environmental) 432-266-2663 From: Green, Garrett J

To: ocd.enviro@emnrd.nm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD

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

Subject: XTO - Sampling Notification (Week of 10/24/22 - 10/28/22)

Date: Friday, October 21, 2022 1:10:30 PM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of Oct 24, 2022.

Monday

Elk Wallow CDP/ nAPP2223831434

Tuesday

Elk Wallow CDP/ nAPP2223831434

Wednesday

- PLU PC 17/ nAPP2223832773

Thursday

- JRU DI 11 Ekalaka 823H/ nAPP2224527297
- Poker Lake Unit 409/ nAPP2223751933
- PLU 27 Brushy Draw 167H / nAPP2222741514

Friday

- JRU DI 11 Ekalaka 823H/ nAPP2224527297
- Poker Lake Unit 409/ nAPP2223751933
- PLU 27 Brushy Draw 167H / nAPP2222741514

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 157777

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	157777
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created B	y Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2223831434 ELK WALLOW CDP, thank you. This closure is approved.	2/3/2023