Page 1 of 126

Incident ID	nAPP2216732906
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	s must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29.11 N	MAC
Photographs of the remediated site prior to backfill or photos of the must be notified 2 days prior to liner inspection)	he liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate ODC Dis	strict office must be notified 2 days prior to final sampling)
Description of remediation activities	
Signature: Day S. Holy Da	lease notifications and perform corrective actions for releases which -141 report by the OCD does not relieve the operator of liability interest contamination that pose a threat to groundwater, surface water, 141 report does not relieve the operator of responsibility for its. The responsible party acknowledges they must substantially items that existed prior to the release or their final land use in
OCD Only	
Received by: Jocelyn Harimon	Date:
Closure approval by the OCD does not relieve the responsible party of li remediate contamination that poses a threat to groundwater, surface wate party of compliance with any other federal, state, or local laws and/or re	er, human health, or the environment nor does not relieve the responsible
Closure Approved by: Robert Hamlet	Date: 12/9/2022
Printed Name: Robert Hamlet	Title: Environmental Specialist - Advanced

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

Responsible Party WPX Energy Permain, LLC

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	nAPP2216732906
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

OGRID 246289

Contact Name Jim Raley			Contact Telephone 575-689-7597					
Contact email Jim.Raley@dvn.com			Incident # (assigned by OCD) nAPP2216732906					
Contact mail 88220	ing address	5315 Buena Vista	a Drive, Carlsba	d, NM	1			
			Logotion	n of D	Release So	Oumao		
			Location	II UI N	delease So	ource		
Latitude 32.0	076523		(NAD 83 in a	lecimal de	Longitude - egrees to 5 decin	-103.8658676 mal places)		
Site Name F	ROSS DRAV	V UNIT #060			Site Type	Oil		
Date Release	Discovered:	6/15/2022			API# (if app	plicable) 30-015-41979		
Unit Letter	Section	Township	Range		Cour	nty		
0	27	26S	30E	Edd				
	Materia					: justification for the volumes provided below)		
Crude Oi	1	Volume Release			•	Volume Recovered (bbls) 0		
Noduced Produced	Water	Volume Release	d (bbls) 5			Volume Recovered (bbls) 0		
Is the concentration of dissolved chloride in produced water >10,000 mg/l?			e in the	he Yes No				
Condensa	ite	Volume Release	d (bbls)			Volume Recovered (bbls)		
Natural G	☐ Natural Gas Volume Released (Mcf)				Volume Recovered (Mcf)			
Other (describe) Volume/Weight Released (provide units) Volume/Weight Recovered (provide units)								
Cause of Release								
Nipple on wellhead developed pinhole leak, allowing for the release of approx 10 bbls (5 Oil/ 5 PW) to pad surface.								
	$bbl\ estimate = \frac{saturated\ soil\ volume\ (ft^2)}{4.21(\frac{ft^3}{bbl\ equivalent})}*\ estimated\ soil\ porosity(\%) + recovered\ fluids\ (bbl)$							

Received by OCD: 9/13/2022 9:52:30 AM State of New Mexico
Page 2 Oil Conservation Division

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Incident ID	nAPP2216732906
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the respon	sible party consider this a major release?
☐ Yes ⊠ No		
If YES, was immediate no	otice given to the OCD? By whom? To who	om? When and by what means (phone, email, etc)?
	Initial Re	sponse
The responsible	party must undertake the following actions immediately	unless they could create a safety hazard that would result in injury
The source of the rele	ease has been stopped.	
	s been secured to protect human health and	he environment.
Released materials ha	ave been contained via the use of berms or di	kes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and	managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain w	hy:
has begun, please attach	a narrative of actions to date. If remedial e	mediation immediately after discovery of a release. If remediation fforts have been successfully completed or if the release occurred ease attach all information needed for closure evaluation.
		est of my knowledge and understand that pursuant to OCD rules and ications and perform corrective actions for releases which may endanger
public health or the environ	ment. The acceptance of a C-141 report by the O	CD does not relieve the operator of liability should their operations have t to groundwater, surface water, human health or the environment. In
		esponsibility for compliance with any other federal, state, or local laws
Printed Name:Jim Ra	aley Title:En	vironmental Professional
Signature:	fin Poly	Date:6/16/2022
email:Jim.Raley@		575-689-7597
	-	
OCD Only		
	Harimon	06/16/2022 Date:
1.000110d by		

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 117898

CONDITIONS

Operator:	OGRID:	
WPX Energy Permian, LLC	246289	
	Action Number:	
Oklahoma City, OK 73102	117898	
	Action Type:	
	[C-141] Release Corrective Action (C-141)	

CONDITIONS

Created By		Condition Date
jharimon	None	6/16/2022

e of New Mexico

Incident ID	nAPP2216732906
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

 $This information \ must \ be \ provided \ to \ the \ appropriate \ district \ of fice \ no \ later \ than \ 90 \ days \ after \ the \ release \ discovery \ date.$

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)				
Did this release impact groundwater or surface water?	☐ 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 vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.					
Characterization Report Checklist: Each of the following items must be included in the report.					
 ✓ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. ✓ Field data ✓ Data table of soil contaminant concentration data ✓ Depth to water determination ✓ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release ✓ Boring or excavation logs 					
Photographs including date and GIS information					

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

✓ Laboratory data including chain of custody

✓ Topographic/Aerial maps

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Page	0	0	120

Incident ID	nAPP2216732906
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the C failed to adequately investigate and remediate contamination that pose a thre addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	ifications and perform corrective actions for releases which may endanger DCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In				
Joseph S. Hernandez Printed Name: on behalf of Devon Energy	Title: Senior Geologist				
Signature: Iny S. Holy	Date: 9/12/2022				
email: jhernandez@ensolum.com	Telephone: 281-702-2329				
OCD Only					
Received by:Jocelyn Harimon	Date: 09/13/202				

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Incident ID	nAPP2216732906
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 photomust be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OD	OC District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re- human health or the environment. In addition, OCD acceptance of	lations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete. Title: Senior Geologist
OCD Only	
Received by: Jocelyn Harimon	Date:09/13/2022
	y of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible lor regulations.
Closure Approved by:	Date:
Printed Name:	Title:



CLOSURE REQUEST REPORT

Site Location:

Ross Draw Unit #060 Eddy County, New Mexico Incident Number nAPP2216732906

September 13, 2022 Ensolum Project No. 03A1987040

Prepared for:

WPX Energy Permian, LLC 5315 Buena Vista Drive Carlsbad, New Mexico 88220 Attention: Jim Raley

Prepared by:

Joseph S. Hernandez Senior Geologist

Joyn S. Holy

Daniel R. Moir, PG Senior Managing Geologist

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1.0	INTRODUCTION	2
	1.1 Site Description & Background	2
	1.2 Site Characterization	2-3
2.0	REMEDIATION AND SOIL SAMPLING ACTIVITIES	3
3.0	SOIL SAMPLING RESULTS	3-4
4.0	CLOSURE REQUEST	4
	LIST OF APPENDICES	

Appendix A: Figure 1: Site Map

Figure 2: Delineation Soil Sample Locations

Figure 3: Excavation Soil Sample Locations

Appendix B: Well Record

Appendix C: Lithologic Soil Sampling Logs

Appendix D: Photographic Log

Appendix E: Tables

Appendix F: Laboratory Analytical Reports & Chain-of-Custody Documentation

Appendix G: Email Correspondence

Closure Request Report Incident Number nAPP2216732906

Page 2

September 13, 2022

1.0 INTRODUCTION

Ensolum, LLC (Ensolum) has prepared this Closure Request Report (CRR) to document site assessment, soil sampling activities, and corrective actions performed by WPX Permian Energy, LLC (WPX) at the Ross Draw Unit #060 (hereinafter referred to as the "Site") in Unit O, Section 27, Township 26 South, Range 30 East, in Eddy County, New Mexico (Figure 1 in Appendix A). Based on remedial activities performed at the Site and laboratory analytical results from delineation and confirmation soil sampling activities indicating compliance with the regulatory standards, WPX respectfully submits this CRR, which summarizes remediation and soil sampling activities associated with a reportable release of produced water and crude oil at the Site.

1.1 Site Description & Background

The Site is located within Eddy County, New Mexico (32.0076523° N, 103.8658676° W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM) (Figure 1 in Appendix A).

On June 15, 2022, a nipple on wellhead developed a pinhole leak, resulting in approximately 5 barrels (bbls) of oil and 5 bbls of produced water to be released to the well pad. The release was contained to the well pad. Initial response efforts included the scraping of soil impacts within the subject release. Approximately 4 cubic yards of impacted soil were excavated from the subject release area during the initial response and disposed of in accordance with state and federal regulations. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) with a subsequent Corrective Action Form C-141 (Form C-141) on June 16, 2022. The release was assigned Incident Number nAPP2216732906.

1.2 Site Characterization

Ensolum characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, from Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on **Figure 1 in Appendix A.**

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based a soil boring (MW-1) that was drilled by Talon LPE for WPX on December 9, 2020, located approximately 0.42 miles northwest of the Site at the Ross Draw Unit #57 Well Pad (RDU 57)). Using a truck mounted drill rig equipped with hollow stem auger, the soil boring was advanced to a total depth of 110 feet bgs. No fluids were observed within the soil boring after at least 72 hours. Following the observation period, the boring was plugged and abandoned. The well log is provided as **Appendix B**. The location of the soil boring is depicted on **Figure 1 in Appendix A**.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 3,624 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet from a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area).

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbon (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

2.0 REMEDIATION AND SOIL SAMPLING ACTIVITIES

On July 7, 2022 delineation activities were conducted by Ensolum to characterize the subject release by verifying the presence or absence of impacted soil as compared to the Closure Criteria. Delineation samples (samples designated PH) were collected in potholes advanced with heavy equipment via backhoe. Delineation activites were directed by field sceening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from each delineation soil sample location (PH01 through PH06): the sample with the highest observed field screening (ranging from 0.5 feet bgs to 1-foot bgs) and the greatest depth (ranging from 1-foot bgs to 4 feet bgs). The location of the delineation samples are shown in Figure 2 in Appendix A. Field screening results and observations for each delineation soil sample were recorded on lithologic/soil sampling logs (Appendix C). The soil samples were placed directly into a 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 LLC (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0. Photographic documentation during delineation activities is included in Appendix D.

Cocurrently with delineation activities, Ensolum collected two composite soil samples at a sampling frequency of 200 square feet from the floor (samples designated as FS) of the excavation performed during intial response efforts to confirm impacted soil above the Closure Criteria was successfully removed. 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 and FS02 were collected from the floor of the excavation at a depth of approximately 0.25 feet bgs. Floor samples collected contained soil from the sidewall and floor due to the shallow nature of the excavation. The soil samples were handled, collected and analyzed as previously described.

The approximate extent of excavation and confirmation soil sample locations is provided on **Figure 3 Appendix A**. Photographic documentation of remediation activities is included in **Appendix D**.

3.0 SOIL SAMPLING RESULTS

Laboratory analytical results for delineation soil samples PH01 and PH02 indicated all COCs were within the applicable Closure Criteria within the subject release. Additionally, delineation soil samples PH01 and PH02 are vertically delineated at 4 feet bgs to the most stringent standards. Laboratory analytical results for delineation soil samples PH03 and PH06 provide lateral definition of the subject release.

Laboratory analytical results for excavation soil samples FS01 and FS02 indicated COCs were within the Closure Criteria. Laboratory analytical results are summarized in the **Table 1** included in **Appendix E**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix F**. **Appendix G** provides correspondence email notification receipts associated with the subject release.

4.0 CLOSURE REQUEST

Based on the results documented in this report, the following findings and conclusions regarding the releases are presented:

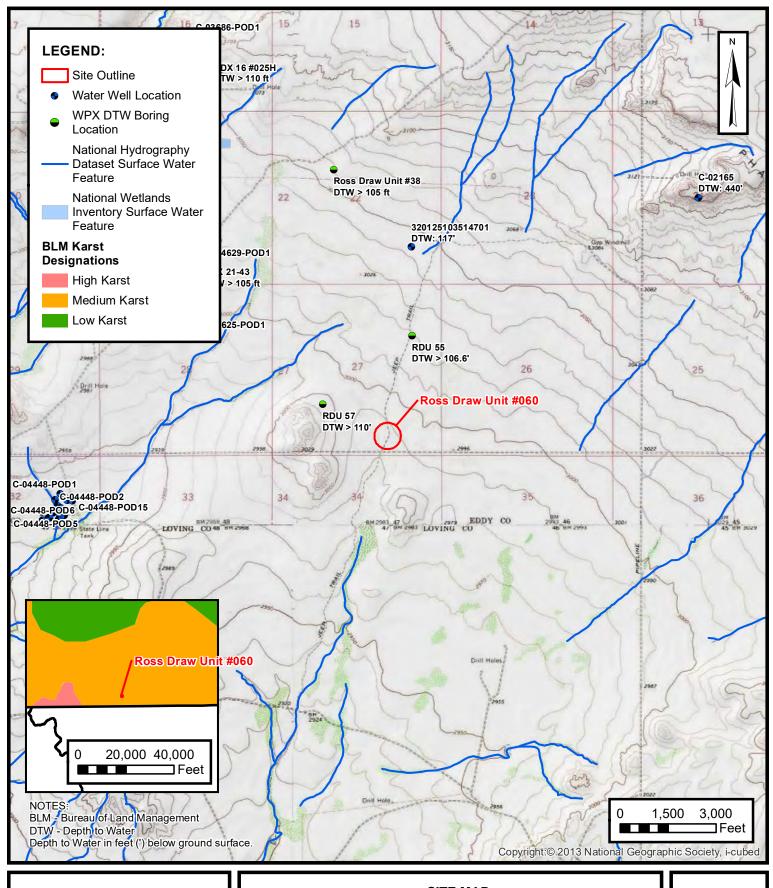
- Laboratory analytical results for delineation soil samples PH01 and PH02 indicated all COCs were within the applicable Closure Criteria within the subject release. Additionally, delineation soil samples PH01 and PH02 are vertically delineated at 4 feet bgs to the most stringent standards. Laboratory analytical results for delineation soil samples PH03 and PH06 provide lateral definition of the subject release. Laboratory analytical results for excavation soil samples FS01 and FS02 indicate COCs were within the Closure Criteria; and
- Approximately 4 cubic yards of impacted soil were excavated from the subject release area during the initial response and disposed of in accordance with state and federal regulations. The excavation was backfilled with clean, imported soil and restored to "as close to its original state" as possible.

WPX believes the remediation activities described above have met the requirements set forth in NMAC 19.15.29.13 to be protective of human health, the environment, and groundwater. As such, WPX respectfully requests Closure of Incident Number nAPP2216732906.



APPENDIX A

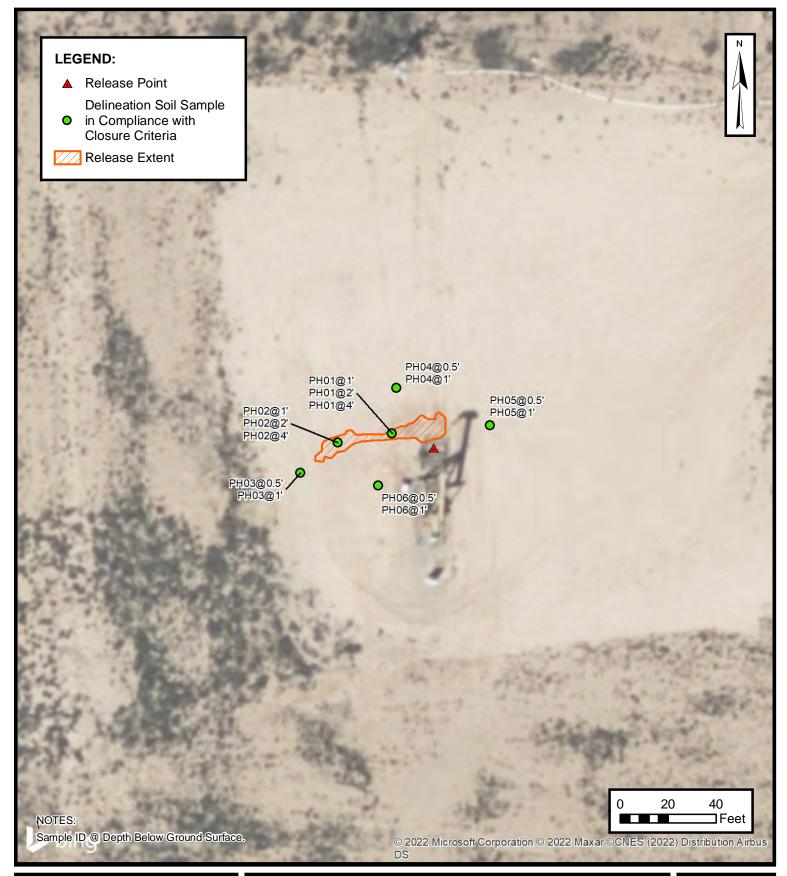
Figures





SITE MAP

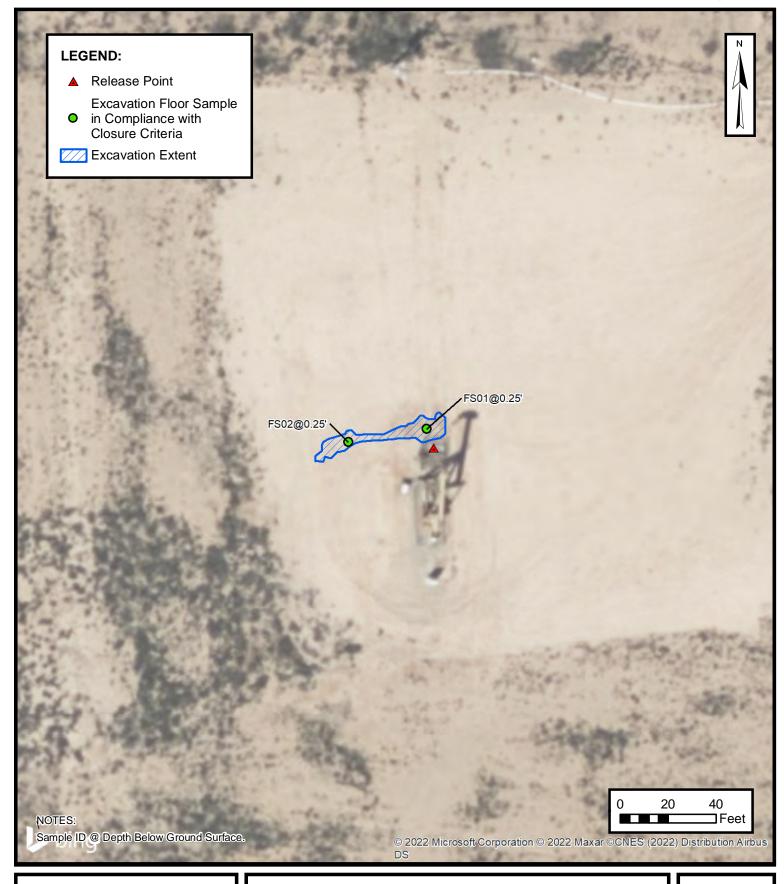
WPX ENERGY PERMIAN, LLC ROSS DRAW UNIT #060 Unit O Sec 27 T26S R30E Eddy County, New Mexico FIGURE





DELINEATION SOIL SAMPLE LOCATIONS

WPX ENERGY PERMIAN, LLC ROSS DRAW UNIT #060 Unit O Sec 27 T26S R30E Eddy County, New Mexico **FIGURE**





EXCAVATION SOIL SAMPLE LOCATIONS

WPX ENERGY PERMIAN, LLC

ROSS DRAW UNIT #060

Unit O Sec 27 T26S R30E Eddy County, New Mexico **FIGURE**



APPENDIX B

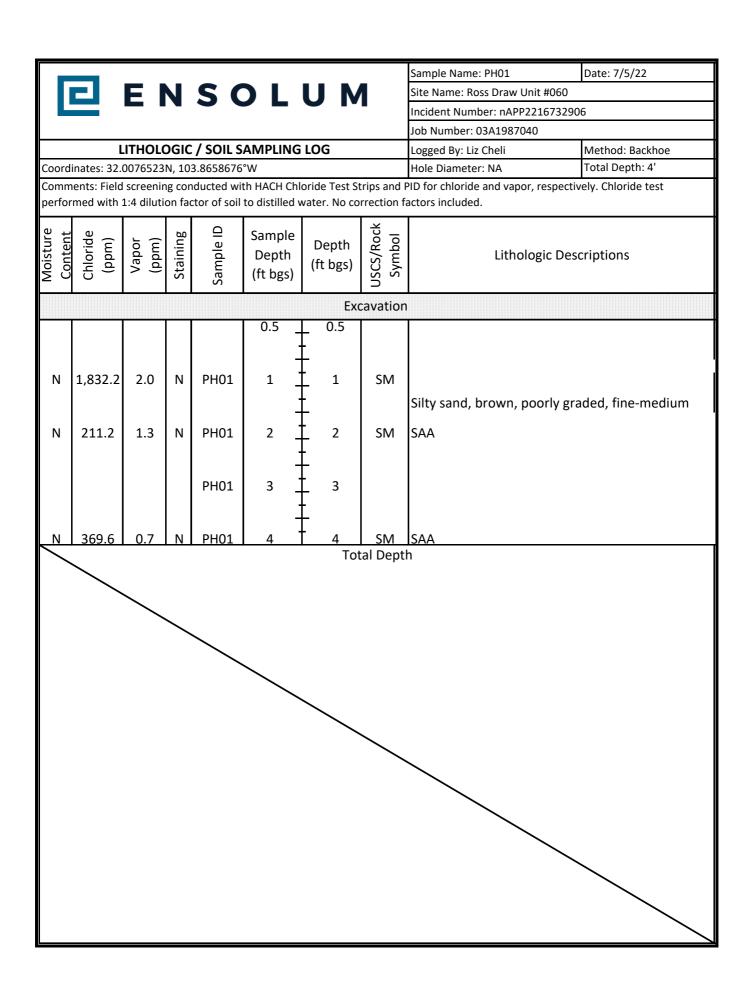
Well Record

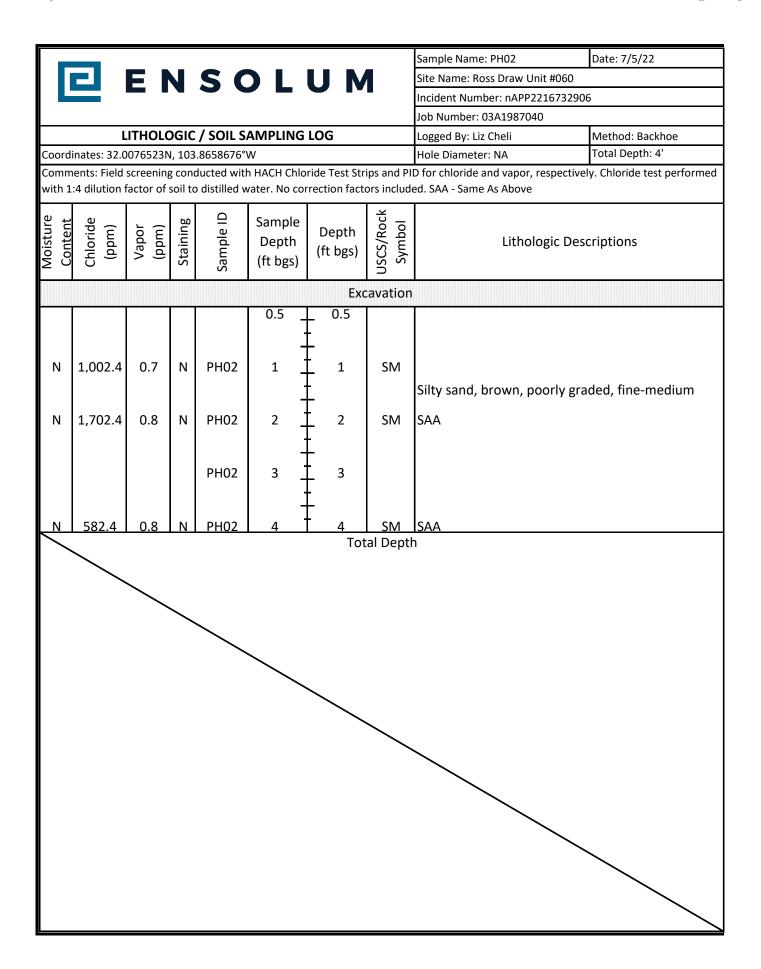
		HR							MONITORING W	ELL COMPLETION	N DIAC	GRA	M
		c n	MPI	ΙΔΝ	C F		Boring/Wel		W-1	Location: Ross Draw U	Jnit #57	,	
		SO	וֹ וו וֹ	ומו	NS		Date:			Client:			
Drilling Me	ethod:	-	Sampling N	Method:			12/9/2020 Logged By:			WPX Energy Drilled By:			
	Air Rotar	у	Samping 1		one		Logged Dy.		nn, PG	Talon L	PE		
Gravel Pac		1	Gravel Pac	k Depth Into			Seal Type:	r	Seal Depth Interval:	Latitude:			
Casing Typ	0/20 Sar	Diameter:		3 B Depth Inter	ags			one al Depth (ft. BC	None None	32.0103 Longitude:	32		
PVC	,	2-inch		0-105 fe				1 1	10	-103.872	246		
Screen Typ	e:	Slot:		Diameter:	•	Interval:	Well Total	Depth (ft. BGS			DTW Da		20
PVC		0.010-ii	nch	2-inch	105-	110 ft			10 T	> 110	12/1	6/202	20
Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	OSCS	Sample ID	Litholog	Com	Vell pletio	on	
0 5											_		
10										•	+		
15	1		_						Tan/pale orange/	pale brown poorly	†		
20	NM	L/M	D	N	N	NM	SM	NS		fine sand	†		
25										•	†		
30										•	†		
35										•	-		
40			_						Hard, dry pale pink	orange well graded	†		
45	NM	M	D	N	N	NM	SW	NS		th gravel	†		
50 55	NM	M	D	N	N	NM	SM	NS	Pale orange red	tan silty fine sand			
60	NM	L	D	N	N	NM	SW	NS	Dark brown greyis	sh well graded sand			
70													
75										•			
80	NM	L/M	D to	N	N	NM	SW	NS	C = 21 - 11	aradad sand			
85	INIVI	L/IVI	SL M	1N	1N	INIVI	SW	1/1/2	Grey Well	graded sand	[
90]									•			
95	1									•	Î		
100 105	NM	L/M	D	N	N	NM	SM	NS		pale brown poorly nd - TD 110' bgs			

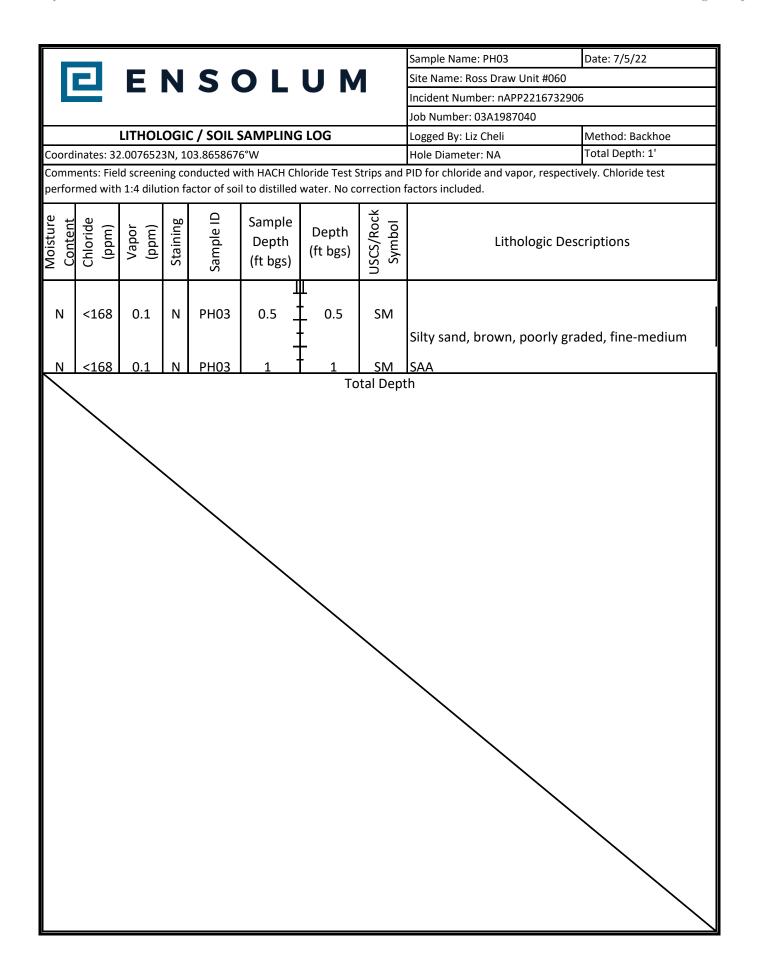


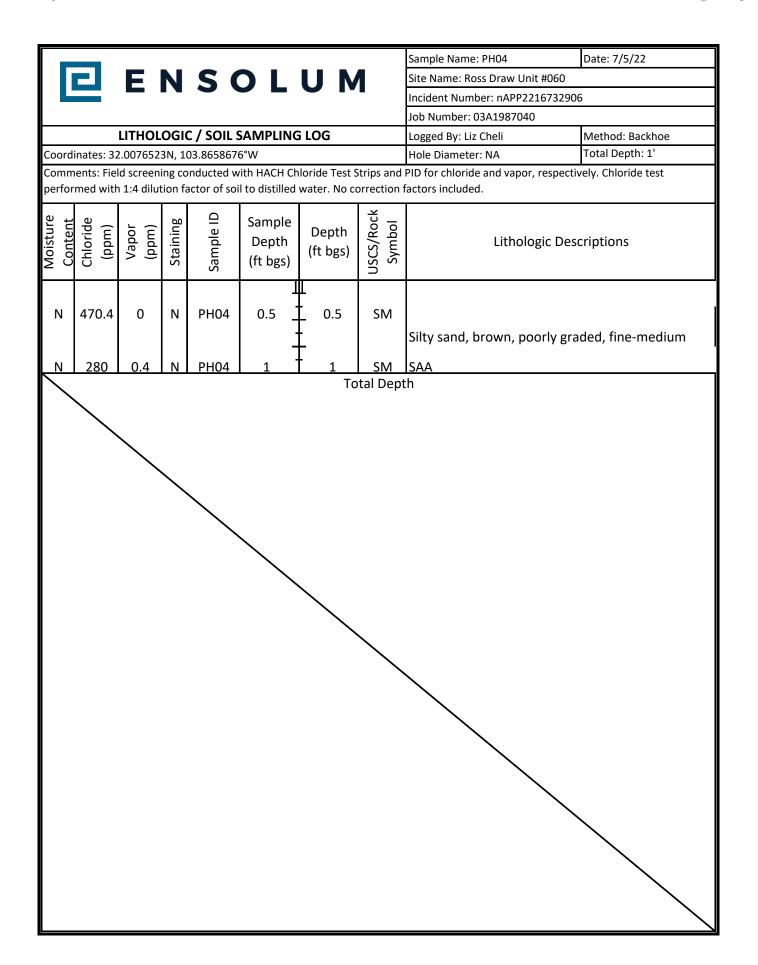
APPENDIX C

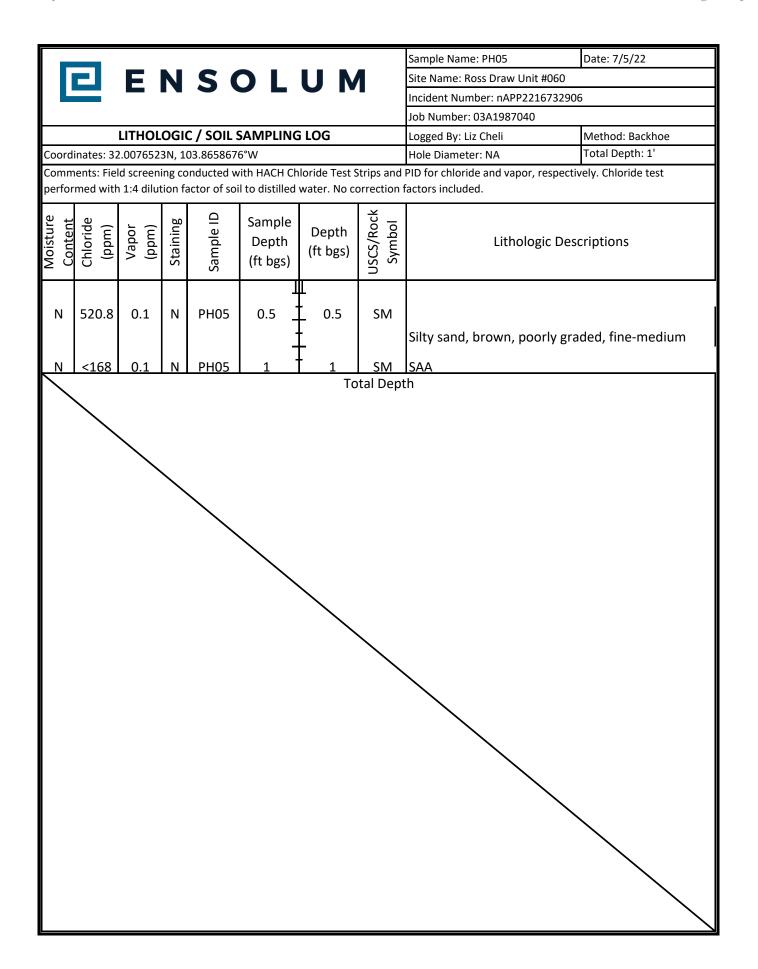
Lithologic Soil Sampling Logs

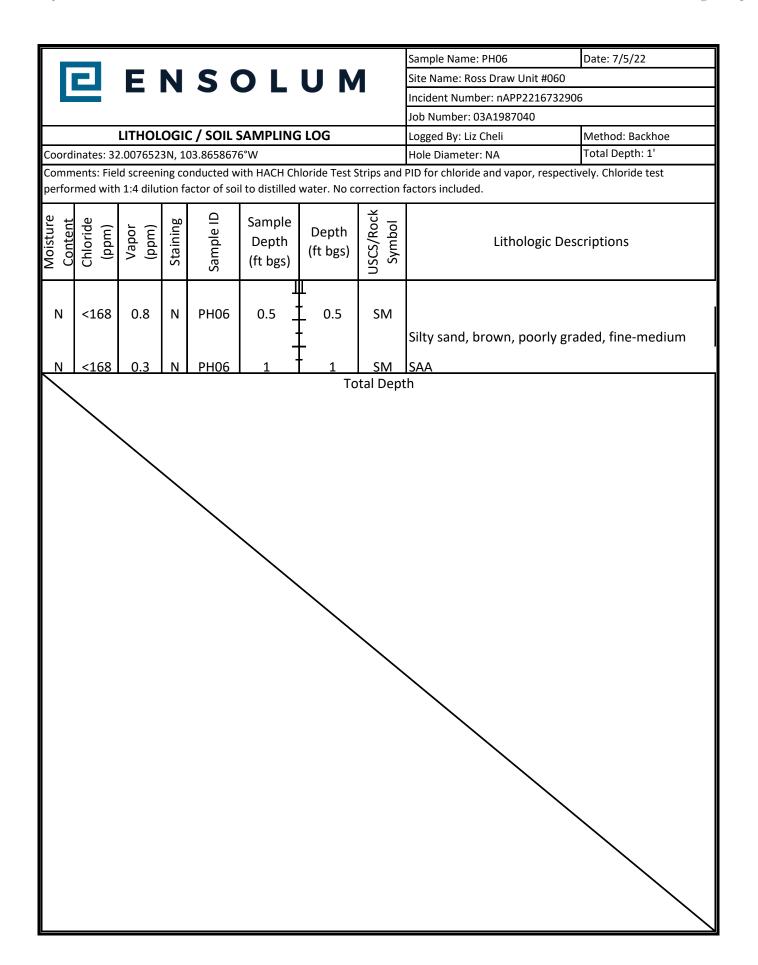














APPENDIX D

Photographic Log



Photographic Log

WPX Energy Permian, LLC
Ross Draw Unit #060
Incident Number nAPP2216732906
Ensolum Job Number: 03A19870040





Photograph 1

Date: June 15, 2022

Description: View of the subject release area.

Photograph 2

Date: July 5, 2022

Description: View of the Site during delineation

activities.





Photograph 3

Date: July 21, 2022

Description: View of the Site following restoration

activities.

Photograph 4

Date: July 21, 2022

Description: View of the Site following restoration

activities.



APPENDIX E

Tables

Received by OCD: 9/13/2022 9:52:30 AM



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS WPX Energy Permian, LLC - Ross Draw Unit #060 Eddy County, New Mexico Ensolum Project No. 03A1987040

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 C	losure Criteria (NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
				Delineation	Soil Sample Ana	lytical Results				
PH01	07/05/2022	1	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	1,620
PH01	07/05/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	1,630
PH01	07/05/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	402
PH02	07/05/2022	1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	901
PH02	07/05/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	1,440
PH02	07/05/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	561
PH03	07/05/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	26.4
PH03	07/05/2022	1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	37.2
PH04	07/05/2022	0.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	410
PH04	07/05/2022	1	<0.00201	<0.00402	88.9	<49.9	<49.9	88.9	88.9	259
PH05	07/05/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	568
PH05	07/05/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	138
PH06	07/05/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	130
PH06	07/05/2022	1	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	172
				Excavation	Soil Sample Anal	ytical Results				
FS01	07/05/2022	0.25	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	444
FS02	07/05/2022	0.25	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	1,860

Notes:

bgs: below ground surface mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

DRO: Diesel Range Organics

TPH: Total Petroleum Hydrocarbon ORO: Oil Range Organics

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release



APPENDIX F

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: 890-2504-1

Laboratory Sample Delivery Group: 03A1987040

Client Project/Site: RDU 60

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Joseph Hernandez

RAMER

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by: 7/15/2022 9:13:14 AM

EOL **Have a Question?**

..... LINKS

Review your project results through

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 12/9/2022 2:17:21 PM 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: RDU 60
Laboratory Job ID: 890-2504-1
SDG: 03A1987040

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Definitions/Glossary

 Client: Ensolum
 Job ID: 890-2504-1

 Project/Site: RDU 60
 SDG: 03A1987040

Qualifiers

GC VOA

Qualifier Description

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

HPLC/IC

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
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

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

NC Not Calculated

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

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Eurofins Carlsbad

Case Narrative

 Client: Ensolum
 Job ID: 890-2504-1

 Project/Site: RDU 60
 SDG: 03A1987040

Job ID: 890-2504-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2504-1

Receipt

The samples were received on 7/6/2022 9:09 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 1.2°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-29204 and analytical batch 880-29449 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: 890-2504-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-2504-1

 Project/Site: RDU 60
 SDG: 03A1987040

Client Sample ID: PH01

Date Collected: 07/05/22 11:40 Date Received: 07/06/22 09:09

Sample Depth: 1'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/12/22 15:37	07/15/22 04:51	
Toluene	<0.00202	U	0.00202		mg/Kg		07/12/22 15:37	07/15/22 04:51	
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/12/22 15:37	07/15/22 04:51	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		07/12/22 15:37	07/15/22 04:51	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/12/22 15:37	07/15/22 04:51	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/12/22 15:37	07/15/22 04:51	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	108		70 - 130				07/12/22 15:37	07/15/22 04:51	1
1,4-Difluorobenzene (Surr)	92		70 - 130				07/12/22 15:37	07/15/22 04:51	1
Method: Total BTEX - Total BTE	X Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			07/15/22 09:56	-
Analyte Total TPH	<50.0	Qualifier U	RL 50.0	MDL	mg/Kg	D	Prepared	Analyzed	Dil Fa
10(a) 1F11 - -	\30.0	U	50.0		mg/ng				
								07/08/22 09:27	•
Method: 8015B NM - Diesel Rang									
Analyte	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
		Qualifier	RL	MDL		<u>D</u>	Prepared 07/07/22 09:20		Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	Qualifier U		MDL	Unit	<u>D</u>		Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10	Result <50.0	Qualifier U	50.0	MDL	Unit mg/Kg	<u>D</u>	07/07/22 09:20	Analyzed 07/07/22 19:49	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0 <50.0	Qualifier U U U	50.0	MDL	Unit mg/Kg mg/Kg	<u>D</u>	07/07/22 09:20 07/07/22 09:20	Analyzed 07/07/22 19:49 07/07/22 19:49	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U U U	50.0 50.0 50.0	MDL	Unit mg/Kg mg/Kg	<u> </u>	07/07/22 09:20 07/07/22 09:20 07/07/22 09:20	Analyzed 07/07/22 19:49 07/07/22 19:49 07/07/22 19:49	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U U U	50.0 50.0 50.0 <i>Limits</i>	MDL	Unit mg/Kg mg/Kg	<u> </u>	07/07/22 09:20 07/07/22 09:20 07/07/22 09:20 Prepared	Analyzed 07/07/22 19:49 07/07/22 19:49 07/07/22 19:49 Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier U U Qualifier	50.0 50.0 50.0 Limits 70 - 130	MDL	Unit mg/Kg mg/Kg	<u> </u>	07/07/22 09:20 07/07/22 09:20 07/07/22 09:20 Prepared 07/07/22 09:20	Analyzed 07/07/22 19:49 07/07/22 19:49 07/07/22 19:49 Analyzed 07/07/22 19:49	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U U Qualifier	50.0 50.0 50.0 Limits 70 - 130	MDL	Unit mg/Kg mg/Kg mg/Kg	D	07/07/22 09:20 07/07/22 09:20 07/07/22 09:20 Prepared 07/07/22 09:20	Analyzed 07/07/22 19:49 07/07/22 19:49 07/07/22 19:49 Analyzed 07/07/22 19:49	Dil Fac

Client Sample ID: PH01

Date Collected: 07/05/22 11:45

Date Received: 07/06/22 09:09

Sample Depth: 2'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/15/22 05:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/15/22 05:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/15/22 05:12	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/12/22 15:37	07/15/22 05:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/15/22 05:12	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/12/22 15:37	07/15/22 05:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				07/12/22 15:37	07/15/22 05:12	

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Lab Sample ID: 890-2504-2

Matrix: Solid

2

3

0

8

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12

Job ID: 890-2504-1 SDG: 03A1987040

MDL Unit

Prepared

Analyzed

Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: PH01 Lab Sample ID: 890-2504-2

Date Collected: 07/05/22 11:45 Matrix: Solid
Date Received: 07/06/22 09:09

Sample Depth: 2'

Analyte

Client: Ensolum

Method: 8021B - Volatile Orga	anic Compounds (
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	07/12/22 15:37	07/15/22 05:12	1
Method: Total BTEX - Total B	TEX Calculation					

RL

 Method: 8015 NM - Diesel Range C	Organics (DRO) (GC)					
Total BTEX	<0.00399 U	0.00399	mg/Kg	 07/15/22 09:56	1	

Result Qualifier

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/08/22 09:27	1
Mothod: 8015B NM - Diosol Pange	Organics (D	PO) (GC)							

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/07/22 09:20	07/07/22 20:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/07/22 09:20	07/07/22 20:10	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/07/22 09:20	07/07/22 20:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

	Surrogate	%Recovery	Qualifier	Limits	Prepa	ared	Analyzed	Dil Fac
	1-Chlorooctane	91		70 - 130	07/07/22	2 09:20	07/07/22 20:10	1
	o-Terphenyl	100		70 - 130	07/07/22	2 09:20	07/07/22 20:10	1
ì								

Method: 300.0 - Anions, Ion Chron	natography - Soluble						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1630	25.0	mg/Kg			07/12/22 08:32	5

Client Sample ID: PH02

Date Collected: 07/05/22 12:10

Lab Sample ID: 890-2504-3

Matrix: Solid

Date Collected: 07/05/22 12:10 Date Received: 07/06/22 09:09

Sample Depth: 1'

Analyte

Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/12/22 15:37	07/15/22 05:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/12/22 15:37	07/15/22 05:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/12/22 15:37	07/15/22 05:32	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/12/22 15:37	07/15/22 05:32	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/12/22 15:37	07/15/22 05:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/12/22 15:37	07/15/22 05:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130				07/12/22 15:37	07/15/22 05:32	1
1,4-Difluorobenzene (Surr)	92		70 - 130				07/12/22 15:37	07/15/22 05:32	1
Method: Total BTEX - Total BT	EX Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/15/22 09:56	1

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Analyzed

07/08/22 09:27

Prepared

RL

49.8

MDL Unit

mg/Kg

Result Qualifier

<49.8 U

2

4

7

Dil Fac

9

11

13

Dil Fac

Matrix: Solid

Lab Sample ID: 890-2504-3

07/12/22 08:42

Lab Sample ID: 890-2504-4

Matrix: Solid

Client Sample Results

Client: Ensolum Job ID: 890-2504-1 Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: PH02

Date Collected: 07/05/22 12:10 Date Received: 07/06/22 09:09

Sample Depth: 1'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8		49.8		mg/Kg		07/07/22 09:20	07/07/22 20:32	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/07/22 09:20	07/07/22 20:32	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/07/22 09:20	07/07/22 20:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				07/07/22 09:20	07/07/22 20:32	1
o-Terphenyl	99		70 - 130				07/07/22 09:20	07/07/22 20:32	1
- Method: 300.0 - Anions, Ion Chro	matography -	Soluble							
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

24.8

mg/Kg

901

Client Sample ID: PH02

Date Collected: 07/05/22 12:15

Date Received: 07/06/22 09:09

Sample Depth: 2'

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/15/22 05:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/15/22 05:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/15/22 05:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/12/22 15:37	07/15/22 05:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/15/22 05:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/12/22 15:37	07/15/22 05:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130				07/12/22 15:37	07/15/22 05:53	1
1,4-Difluorobenzene (Surr)	93		70 - 130				07/12/22 15:37	07/15/22 05:53	1
Method: Total BTEX - Total BTEX	(Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/15/22 09:56	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/08/22 09:27	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/07/22 09:20	07/07/22 20:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/07/22 09:20	07/07/22 20:53	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/07/22 09:20	07/07/22 20:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130				07/07/22 09:20	07/07/22 20:53	1
· Omoroodano									

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7/15/2022

Client Sample Results

 Client: Ensolum
 Job ID: 890-2504-1

 Project/Site: RDU 60
 SDG: 03A1987040

Client Sample ID: PH02

Date Collected: 07/05/22 12:15

Lab Sample ID: 890-2504-4

Matrix: Solid

Date Collected: 07/05/22 12:15
Date Received: 07/06/22 09:09

Sample Depth: 2'

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1440		25.2		mg/Kg			07/12/22 08:51	5

4

5

7

10

16

Surrogate Summary

Job ID: 890-2504-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

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)	
890-2501-A-3-E MS	Matrix Spike	102	97	
890-2501-A-3-F MSD	Matrix Spike Duplicate	106	98	
890-2504-1	PH01	108	92	
890-2504-2	PH01	109	94	
890-2504-3	PH02	110	92	
890-2504-4	PH02	108	93	
LCS 880-29565/1-A	Lab Control Sample	102	95	
LCSD 880-29565/2-A	Lab Control Sample Dup	102	96	
MB 880-29565/5-A	Method Blank	99	89	
MB 880-29668/5-A	Method Blank	95	87	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-16646-A-1-B MS	Matrix Spike	104	102	
880-16646-A-1-C MSD	Matrix Spike Duplicate	109	108	
890-2504-1	PH01	90	100	
890-2504-2	PH01	91	100	
890-2504-3	PH02	89	99	
890-2504-4	PH02	100	114	
LCS 880-29181/2-A	Lab Control Sample	101	103	
LCSD 880-29181/3-A	Lab Control Sample Dup	100	104	
MB 880-29181/1-A	Method Blank	97	115	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Carlsbad

Client: Ensolum Job ID: 890-2504-1 SDG: 03A1987040 Project/Site: RDU 60

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29565/5-A

Matrix: Solid Analysis Batch: 29704 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29565

MB MB			

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/14/22 23:00	1
<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/14/22 23:00	1
<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/14/22 23:00	1
<0.00400	U	0.00400		mg/Kg		07/12/22 15:37	07/14/22 23:00	1
<0.00200	U	0.00200		mg/Kg		07/12/22 15:37	07/14/22 23:00	1
<0.00400	U	0.00400		mg/Kg		07/12/22 15:37	07/14/22 23:00	1
	<0.00200 <0.00200 <0.00200 <0.00400 <0.00200	Result Qualifier	<0.00200 U 0.00200 <0.00200 U 0.00200 <0.00200 U 0.00200 <0.00200 U 0.00200 <0.00400 U 0.00400 <0.00200 U 0.00200	<0.00200 U 0.00200 <0.00200 U 0.00200 <0.00200 U 0.00200 <0.00400 U 0.00400 <0.00200 U 0.00200	<0.00200	<0.00200	<0.00200	<0.00200

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99	70 - 130	07/12/22 15:37	07/14/22 23:00	1
1,4-Difluorobenzene (Surr)	89	70 - 130	07/12/22 15:37	07/14/22 23:00	1

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 880-29565/1-A

Matrix: Solid

Analysis Batch: 29704

Prep Type: Total/NA Prep Batch: 29565

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09282		mg/Kg		93	70 - 130	
Toluene	0.100	0.09125		mg/Kg		91	70 - 130	
Ethylbenzene	0.100	0.09538		mg/Kg		95	70 - 130	
m-Xylene & p-Xylene	0.200	0.1877		mg/Kg		94	70 - 130	
o-Xylene	0.100	0.1042		mg/Kg		104	70 - 130	

LCS LCS

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

Lab Sample ID: LCSD 880-29565/2-A

Matrix: Solid

Analysis Batch: 29704

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29565

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.07602		mg/Kg		76	70 - 130	20	35	
Toluene	0.100	0.07517		mg/Kg		75	70 - 130	19	35	
Ethylbenzene	0.100	0.07767		mg/Kg		78	70 - 130	20	35	
m-Xylene & p-Xylene	0.200	0.1540		mg/Kg		77	70 - 130	20	35	
o-Xylene	0.100	0.08619		mg/Kg		86	70 - 130	19	35	

LCSD LCSD

Surrogate	%Recovery Qualifie	r Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1,4-Difluorobenzene (Surr)	96	70 - 130

Lab Sample ID: 890-2501-A-3-E MS

Matrix: Solid

Analysis Batch: 29704

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

Prep Batch: 29565

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0994	0.08428		mg/Kg		85	70 - 130	
Toluene	<0.00200	U	0.0994	0.07480		mg/Kg		75	70 - 130	

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Client Sample ID: Matrix Spike

70 - 130

70 - 130

Client Sample ID: Matrix Spike Duplicate

76

92

QC Sample Results

Job ID: 890-2504-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

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

<0.00401

<0.00200 U

U

Lab Sample ID: 890-2501-A-3-E MS **Matrix: Solid**

Analysis Batch: 29704

m-Xylene & p-Xylene

o-Xylene

Prep Type: Total/NA Prep Batch: 29565 Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits D Ethylbenzene <0.00200 U 0.0994 0.07956 80 70 - 130 mg/Kg

0.1542

0.09184

mg/Kg

mg/Kg

0.199

0.0994

MS MS Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 102 1,4-Difluorobenzene (Surr) 70 - 130 97

Lab Sample ID: 890-2501-A-3-F MSD

Matrix: Solid Prep Type: Total/NA Analysis Batch: 29704 Prep Batch: 29565 Sample Sample Spike MSD MSD Result Qualifier %Rec RPD Analyte Added Result Qualifier Limits Unit

Limit Benzene <0.00200 U 0.0998 0.09404 mg/Kg 94 70 - 130 11 35 Toluene <0.00200 0.0998 0.08567 mg/Kg 86 70 - 130 14 35 Ethylbenzene <0.00200 0.0998 0.08962 90 70 - 130 12 35 U mg/Kg m-Xylene & p-Xylene < 0.00401 U 0.200 0.1741 mg/Kg 86 70 - 130 12 35 0.0998 0.1030 70 - 130 o-Xylene <0.00200 U mg/Kg 103 11

MSD MSD Surrogate Qualifier Limits %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 106 1,4-Difluorobenzene (Surr) 70 - 130 98

Lab Sample ID: MB 880-29668/5-A

Analysis Batch: 29704

Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 29668 MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/13/22 13:45	07/14/22 12:09	1

	мв мв				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95	70 - 130	07/13/22 13:45	07/14/22 12:09	1
1,4-Difluorobenzene (Surr)	87	70 - 130	07/13/22 13:45	07/14/22 12:09	1

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

Lab Sample ID: MB 880-29181/1-A

Matrix: Solid

Client Sample ID: Method Blank Prep Type: Total/NA **Analysis Batch: 29163** Prep Batch: 29181

MB MB Analyte Result Qualifier RL MDL Unit Prepared <50.0 U 50.0 07/07/22 09:20 07/07/22 11:43 Gasoline Range Organics mg/Kg (GRO)-C6-C10

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RPD

 Client: Ensolum
 Job ID: 890-2504-1

 Project/Site: RDU 60
 SDG: 03A1987040

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

Qualifier

%Recovery

101

103

Lab Sample ID: MB 880-29181/1-A

Matrix: Solid

Analysis Batch: 29163

Prep Batch: 29181

MB MB

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/07/22 09:20	07/07/22 11:43	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/07/22 09:20	07/07/22 11:43	1
	МВ	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				07/07/22 09:20	07/07/22 11:43	1
o-Terphenyl	115		70 - 130				07/07/22 09:20	07/07/22 11:43	1

Lab Sample ID: LCS 880-29181/2-A **Client Sample ID: Lab Control Sample** Matrix: Solid Prep Type: Total/NA Analysis Batch: 29163 Prep Batch: 29181 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 773.3 77 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 986.5 mg/Kg 99 70 - 130 C10-C28) LCS LCS

Lab Sample ID: LCSD 880-29181/3-A

Matrix: Solid

Analysis Batch: 29163

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29181

Limits

70 - 130

70 - 130

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	767.7		mg/Kg		77	70 - 130	1	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1004		mg/Kg		100	70 - 130	2	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: 880-16646-A-1-B MS

Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 29163 Prep Batch: 29181

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	963.7		mg/Kg		97	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	996	967.3		mg/Kg		95	70 - 130	
	MS	MS								

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	102		70 - 130

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Surrogate

o-Terphenyl

1-Chlorooctane

Lab Sample ID: 880-16646-A-1-C MSD

Job ID: 890-2504-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29181

Analysis Batch: 29163									Prep	Batch:	29181
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	995	1073		mg/Kg		108	70 - 130	11	20
Diesel Range Organics (Over	<49.9	U	995	1016		mg/Kg		100	70 - 130	5	20

C10-C28)

Matrix: Solid

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	108		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29204/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 29449

MB MB

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	5.00	mg/Kg			07/12/22 07:28	1

Lab Sample ID: LCS 880-29204/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 29449

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	264.5		mg/Kg		106	90 - 110	 -

Lab Sample ID: LCSD 880-29204/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 29449

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	263.0		mg/Kg		105	90 - 110	1	20	

Lab Sample ID: 890-2503-A-13-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 29449

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	5650	F1	2490	7657	F1	ma/Ka	_	81	90 110	

Lab Sample ID: 890-2503-A-13-D MSD

Matrix: Solid

Analysis Batch: 29449

Alialysis Dalcil. 23443											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	5650	F1	2490	7625	F1	mg/Kg		79	90 - 110	0	20

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Prep Type: Soluble

Client Sample ID: Matrix Spike Duplicate

QC Association Summary

 Client: Ensolum
 Job ID: 890-2504-1

 Project/Site: RDU 60
 SDG: 03A1987040

GC VOA

Prep Batch: 29565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2504-1	PH01	Total/NA	Solid	5035	
890-2504-2	PH01	Total/NA	Solid	5035	
890-2504-3	PH02	Total/NA	Solid	5035	
890-2504-4	PH02	Total/NA	Solid	5035	
MB 880-29565/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29565/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29565/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2501-A-3-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2501-A-3-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 29668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-29668/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 29704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2504-1	PH01	Total/NA	Solid	8021B	29565
890-2504-2	PH01	Total/NA	Solid	8021B	29565
890-2504-3	PH02	Total/NA	Solid	8021B	29565
890-2504-4	PH02	Total/NA	Solid	8021B	29565
MB 880-29565/5-A	Method Blank	Total/NA	Solid	8021B	29565
MB 880-29668/5-A	Method Blank	Total/NA	Solid	8021B	29668
LCS 880-29565/1-A	Lab Control Sample	Total/NA	Solid	8021B	29565
LCSD 880-29565/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29565
890-2501-A-3-E MS	Matrix Spike	Total/NA	Solid	8021B	29565
890-2501-A-3-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	29565

Analysis Batch: 29824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2504-1	PH01	Total/NA	Solid	Total BTEX	
890-2504-2	PH01	Total/NA	Solid	Total BTEX	
890-2504-3	PH02	Total/NA	Solid	Total BTEX	
890-2504-4	PH02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 29163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2504-1	PH01	Total/NA	Solid	8015B NM	29181
890-2504-2	PH01	Total/NA	Solid	8015B NM	29181
890-2504-3	PH02	Total/NA	Solid	8015B NM	29181
890-2504-4	PH02	Total/NA	Solid	8015B NM	29181
MB 880-29181/1-A	Method Blank	Total/NA	Solid	8015B NM	29181
LCS 880-29181/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29181
LCSD 880-29181/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29181
880-16646-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	29181
880-16646-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29181

Prep Batch: 29181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2504-1	PH01	Total/NA	Solid	8015NM Prep	

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QC Association Summary

 Client: Ensolum
 Job ID: 890-2504-1

 Project/Site: RDU 60
 SDG: 03A1987040

GC Semi VOA (Continued)

Prep Batch: 29181 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2504-2	PH01	Total/NA	Solid	8015NM Prep	
890-2504-3	PH02	Total/NA	Solid	8015NM Prep	
890-2504-4	PH02	Total/NA	Solid	8015NM Prep	
MB 880-29181/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29181/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29181/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16646-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16646-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2504-1	PH01	Total/NA	Solid	8015 NM	
890-2504-2	PH01	Total/NA	Solid	8015 NM	
890-2504-3	PH02	Total/NA	Solid	8015 NM	
890-2504-4	PH02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2504-1	PH01	Soluble	Solid	DI Leach	
890-2504-2	PH01	Soluble	Solid	DI Leach	
890-2504-3	PH02	Soluble	Solid	DI Leach	
890-2504-4	PH02	Soluble	Solid	DI Leach	
MB 880-29204/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29204/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29204/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2503-A-13-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2503-A-13-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 29449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2504-1	PH01	Soluble	Solid	300.0	29204
890-2504-2	PH01	Soluble	Solid	300.0	29204
890-2504-3	PH02	Soluble	Solid	300.0	29204
890-2504-4	PH02	Soluble	Solid	300.0	29204
MB 880-29204/1-A	Method Blank	Soluble	Solid	300.0	29204
LCS 880-29204/2-A	Lab Control Sample	Soluble	Solid	300.0	29204
LCSD 880-29204/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29204
890-2503-A-13-C MS	Matrix Spike	Soluble	Solid	300.0	29204
890-2503-A-13-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	29204

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Job ID: 890-2504-1 SDG: 03A1987040

Client: Ensolum Project/Site: RDU 60 **Client Sample ID: PH01**

Lab Sample ID: 890-2504-1

Matrix: Solid

Date Collected: 07/05/22 11:40 Date Received: 07/06/22 09:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	29565	07/12/22 15:37	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29704	07/15/22 04:51	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29824	07/15/22 09:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29268	07/08/22 09:27	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29181	07/07/22 09:20	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29163	07/07/22 19:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		5			29449	07/12/22 08:23	CH	XEN MID

Client Sample ID: PH01 Lab Sample ID: 890-2504-2

Date Collected: 07/05/22 11:45 Matrix: Solid

Date Received: 07/06/22 09:09

	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	29565	07/12/22 15:37	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29704	07/15/22 05:12	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29824	07/15/22 09:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29268	07/08/22 09:27	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29181	07/07/22 09:20	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29163	07/07/22 20:10	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		5			29449	07/12/22 08:32	CH	XEN MID

Client Sample ID: PH02 Lab Sample ID: 890-2504-3 Date Collected: 07/05/22 12:10

Date Received: 07/06/22 09:09

	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	29565	07/12/22 15:37	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29704	07/15/22 05:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29824	07/15/22 09:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29268	07/08/22 09:27	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	29181	07/07/22 09:20	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29163	07/07/22 20:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		5			29449	07/12/22 08:42	CH	XEN MID

Client Sample ID: PH02 Lab Sample ID: 890-2504-4 Date Collected: 07/05/22 12:15 **Matrix: Solid**

Date Received: 07/06/22 09:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29565	07/12/22 15:37	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29704	07/15/22 05:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29824	07/15/22 09:56	SM	XEN MID

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Matrix: Solid

Lab Chronicle

Client: Ensolum Job ID: 890-2504-1 Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: PH02

Date Received: 07/06/22 09:09

Lab Sample ID: 890-2504-4 Date Collected: 07/05/22 12:15

Matrix: Solid

	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			29268	07/08/22 09:27	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29181	07/07/22 09:20	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29163	07/07/22 20:53	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		5			29449	07/12/22 08:51	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-2504-1

 Project/Site: RDU 60
 SDG: 03A1987040

Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report by	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes for y
the agency does not of		at the laboratory is not certific	ed by the governing additionty. This list me	ay ilicidde allaiytes for t
0 ,		Matrix	Analyte	ay include analytes for t
the agency does not of	fer certification.	•	, , ,	ay include analytes for t

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Method Summary

Job ID: 890-2504-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: Ensolum
Project/Site: RDU 60

Job ID: 890-2504-1 SDG: 03A1987040

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2504-1	PH01	Solid	07/05/22 11:40	07/06/22 09:09	1'
890-2504-2	PH01	Solid	07/05/22 11:45	07/06/22 09:09	2'
890-2504-3	PH02	Solid	07/05/22 12:10	07/06/22 09:09	1'
890-2504-4	PH02	Solid	07/05/22 12:15	07/06/22 09:09	2'

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Environment Testing
Xenco

Chain of Custody

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

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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2504-1 SDG Number: 03A1987040

Login Number: 2504 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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2504-1 SDG Number: 03A1987040

Login Number: 2504 **List Source: Eurofins Midland** List Number: 2 List Creation: 07/07/22 10:57 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: 890-2505-1

Laboratory Sample Delivery Group: 03A1987040

Client Project/Site: RDU 60

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Joseph Hernandez

RAMER

7/14/2022 6:47:59 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: 12/9/2022 2:17:21 PM 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: RDU 60
Laboratory Job ID: 890-2505-1
SDG: 03A1987040

3DG.

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Definitions/Glossary

Job ID: 890-2505-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

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

HPLC/IC

Qualifier **Qualifier Description**

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

Glossary

MCL

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

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

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

DFR Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

Decision Level Concentration (Radiochemistry) DLC

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

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

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

NC Not Calculated

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

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

PRES Presumptive

QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points Toxicity Equivalent Factor (Dioxin) TEF

Toxicity Equivalent Quotient (Dioxin) TEQ

TNTC Too Numerous To Count

Eurofins Carlsbad

Case Narrative

 Client: Ensolum
 Job ID: 890-2505-1

 Project/Site: RDU 60
 SDG: 03A1987040

Job ID: 890-2505-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2505-1

Receipt

The samples were received on 7/6/2022 9:09 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 1.2°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-29204 and analytical batch 880-29449 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: 890-2505-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-2505-1

 Project/Site: RDU 60
 SDG: 03A1987040

Client Sample ID: FS01

Date Collected: 07/05/22 11:35 Date Received: 07/06/22 09:09

Sample Depth: 0.25'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 17:13	
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 17:13	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 17:13	
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/13/22 13:45	07/14/22 17:13	
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 17:13	
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/13/22 13:45	07/14/22 17:13	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	105		70 - 130				07/13/22 13:45	07/14/22 17:13	
1,4-Difluorobenzene (Surr)	91		70 - 130				07/13/22 13:45	07/14/22 17:13	
Method: Total BTEX - Total BTE)	(Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/14/22 19:41	-
Analyte Total TPH	<50.0	Qualifier U			mg/Kg		Prepared	Analyzed 07/08/22 11:23	Dil Fa
Total TPH	<50.0	U	50.0		mg/Kg			07/08/22 11:23	
Method: 8015B NM - Diesel Rang									
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/07/22 09:35	07/07/22 15:43	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/07/22 09:35	07/07/22 15:43	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/07/22 09:35	07/07/22 15:43	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	104		70 - 130				07/07/22 09:35	07/07/22 15:43	
o-Terphenyl	112		70 - 130				07/07/22 09:35	07/07/22 15:43	
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble							
Analyte	Result	Qualifier	RL_	MDL	Unit mg/Kg	D	Prepared	Analyzed	Dil Fac

Client Sample ID: FS02

Date Collected: 07/05/22 12:05 Date Received: 07/06/22 09:09

Date Received. 07700/22 03.

Sample Depth: 0.25'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/13/22 13:45	07/14/22 17:34	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/13/22 13:45	07/14/22 17:34	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/13/22 13:45	07/14/22 17:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/13/22 13:45	07/14/22 17:34	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/13/22 13:45	07/14/22 17:34	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/13/22 13:45	07/14/22 17:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				07/13/22 13:45	07/14/22 17:34	1

Eurofins Carlsbad

Lab Sample ID: 890-2505-2

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Matrix: Solid

Client Sample Results

 Client: Ensolum
 Job ID: 890-2505-1

 Project/Site: RDU 60
 SDG: 03A1987040

Client Sample ID: FS02

Date Collected: 07/05/22 12:05

Lab Sample ID: FS02

Lab Sample ID: 890-2505-2

Matrix: Solid

Sample Depth: 0.25'

Analyte

Chloride

Date Received: 07/06/22 09:09

Method: 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

1860

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	85		70 - 130				07/13/22 13:45	07/14/22 17:34	1
Method: Total BTEX - Total BTE)	X Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/14/22 19:41	1
Method: 8015 NM - Diesel Range	∍ Organics (DR	O) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			07/08/22 11:23	1
Total TPH : 	ge Organics (DI		49.9	MDL		<u>D</u>	Prepared	07/08/22 11:23 Analyzed	1Dil Fac
Method: 8015B NM - Diesel Ranç	ge Organics (DI	RO) (GC) Qualifier		MDL		<u>D</u>	Prepared 07/07/22 09:35		Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	ge Organics (DI	RO) (GC) Qualifier	RL	MDL	Unit	<u>D</u>		Analyzed	1 Dil Fac 1
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (DI Result <49.9	RO) (GC) Qualifier U	RL 49.9	MDL	Unit mg/Kg	<u>D</u>	07/07/22 09:35	Analyzed 07/07/22 16:26	1 Dil Fac 1
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (DI Result <49.9	RO) (GC) Qualifier U U	RL 49.9	MDL	Unit mg/Kg mg/Kg	<u>D</u>	07/07/22 09:35 07/07/22 09:35	Analyzed 07/07/22 16:26 07/07/22 16:26	Dil Fac 1 1 Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (DI Result <49.9 <49.9	RO) (GC) Qualifier U U	RL 49.9 49.9 49.9	MDL	Unit mg/Kg mg/Kg	<u>D</u>	07/07/22 09:35 07/07/22 09:35 07/07/22 09:35	Analyzed 07/07/22 16:26 07/07/22 16:26 07/07/22 16:26	1 1

50.0

MDL Unit

mg/Kg

Prepared

Analyzed

07/12/22 09:28

Released to Imaging: 12/9/2022 2:17:21 PM

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Dil Fac

Surrogate Summary

 Client: Ensolum
 Job ID: 890-2505-1

 Project/Site: RDU 60
 SDG: 03A1987040

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

-			
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2505-1	FS01	105	91
890-2505-2	FS02	104	85
890-2547-A-21-A MS	Matrix Spike	101	98
890-2547-A-21-B MSD	Matrix Spike Duplicate	102	98
LCS 880-29668/1-A	Lab Control Sample	102	97
LCSD 880-29668/2-A	Lab Control Sample Dup	103	97
MB 880-29668/5-A	Method Blank	95	87
Surrogate Legend			
BFB = 4-Bromofluorober	nzene (Surr)		

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

_				Percent Surrogate
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2505-1	FS01	104	112	
890-2505-2	FS02	105	112	
890-2507-A-1-F MS	Matrix Spike	115	115	
890-2507-A-1-G MSD	Matrix Spike Duplicate	116	116	
LCS 880-29183/2-A	Lab Control Sample	124	136 S1+	
LCSD 880-29183/3-A	Lab Control Sample Dup	105	109	
MB 880-29183/1-A	Method Blank	114	128	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2505-1 SDG: 03A1987040 Project/Site: RDU 60

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29668/5-A

Matrix: Solid Analysis Batch: 29704 Client Sample ID: Method Blank

Prep Type: Total/NA

							Prep Batch:	
MB	MB							
esult	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
Xylenes, Total	< 0.00400	U	0.00400		mg/Kg		07/13/22 13:45	07/14/22 12:09	1

MB MB

Surrogate	%Recovery (Qualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95	70 - 130	07/13/22 13:45	07/14/22 12:09	1
1,4-Difluorobenzene (Surr)	87	70 - 130	07/13/22 13:45	07/14/22 12:09	1

Lab Sample ID: LCS 880-29668/1-A **Client Sample ID: Lab Control Sample**

Matrix: Solid Analysis Batch: 29704

Prep Type: Total/NA Prep Batch: 29668

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1010		mg/Kg		101	70 - 130	
Toluene	0.100	0.1014		mg/Kg		101	70 - 130	
Ethylbenzene	0.100	0.1042		mg/Kg		104	70 - 130	
m-Xylene & p-Xylene	0.200	0.2071		mg/Kg		104	70 - 130	
o-Xylene	0.100	0.1137		mg/Kg		114	70 - 130	
I and the second								

LCS LCS

Surrogate	%Recovery (Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-29668/2-A

Matrix: Solid

Analysis Batch: 29704

Prep Type: Total/NA

Prep Batch: 29668

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09464		mg/Kg		95	70 - 130	7	35	
Toluene	0.100	0.09323		mg/Kg		93	70 - 130	8	35	
Ethylbenzene	0.100	0.09660		mg/Kg		97	70 - 130	8	35	
m-Xylene & p-Xylene	0.200	0.1923		mg/Kg		96	70 - 130	7	35	
o-Xylene	0.100	0.1056		mg/Kg		106	70 - 130	7	35	

LCSD LCSD

Surrogate	%Recovery Qualifie	er Limits
4-Bromofluorobenzene (Surr)	103	70 - 130
1.4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: 890-2547-A-21-A MS

Matrix: Solid

Analysis Batch: 29704

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

Prep Batch: 29668

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.08907		mg/Kg		89	70 - 130	
Toluene	<0.00200	U	0.0998	0.08627		mg/Kg		86	70 - 130	

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Analysis Batch: 29704

QC Sample Results

Job ID: 890-2505-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

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

Lab Sample ID: 890-2547-A-21-A MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 29668

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00200 U 0.0998 0.09019 90 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00401 0.200 0.1790 mg/Kg 90 70 - 130 0.09784 o-Xylene <0.00200 U 0.0998 98 70 - 130 mg/Kg

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	101	70 - 130
1,4-Difluorobenzene (Surr)	98	70 - 130

Lab Sample ID: 890-2547-A-21-B MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Solid

Prep Batch: 29668 Analysis Batch: 29704 Sample Sample Spike MSD MSD RPD

Result Qualifier Result Qualifier RPD Limit Analyte babbA Unit %Rec Limits Benzene <0.00200 U 0.0994 0.08773 mg/Kg 88 70 - 130 2 35 Toluene <0.00200 0.0994 0.08563 mg/Kg 86 70 - 130 1 35 Ethylbenzene <0.00200 U 0.0994 0.08825 89 70 - 130 2 35 mg/Kg 0.199 35 m-Xylene & p-Xylene <0.00401 U 0.1751 mg/Kg 88 70 - 130 2 <0.00200 U 0.0994 0.09619 97 70 - 130 2 o-Xylene mg/Kg

MSD MSD

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

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

Lab Sample ID: MB 880-29183/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 29183

Analysis Batch: 29167

мв мв Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Analyte 50.0 07/07/22 09:35 07/07/22 10:03 <50.0 U Gasoline Range Organics mg/Kg (GRO)-C6-C10 50.0 07/07/22 09:35 07/07/22 10:03 Diesel Range Organics (Over <50.0 U mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 07/07/22 09:35 07/07/22 10:03 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	07/07/22 09:35	07/07/22 10:03	1
o-Terphenyl	128		70 - 130	07/07/22 09:35	07/07/22 10:03	1

Lab Sample ID: LCS 880-29183/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

Prep Batch: 29183 **Analysis Batch: 29167**

LCS LCS

	•						
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	1000	1136		mg/Kg		114	70 - 130
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	1143		mg/Kg		114	70 - 130
C10-C28)							

Spike

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%Rec

Job ID: 890-2505-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

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

Lab Sample ID: LCS 880-29183/2-A

Matrix: Solid

Analysis Batch: 29167

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29183

LCS LCS

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 124 70 - 130 o-Terphenyl 136 S1+ 70 - 130

Lab Sample ID: LCSD 880-29183/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 29167

Prep Type: Total/NA

Prep Batch: 29183

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 1093 109 70 - 130 20 Gasoline Range Organics mg/Kg 4 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1022 102 mg/Kg 70 - 13011 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: 890-2507-A-1-F MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 29167

Prep Type: Total/NA

Prep Batch: 29183

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U F1	997	1311	F1	mg/Kg		132	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U	997	1006		mg/Kg		101	70 - 130	
C10-C28)										

C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 115 o-Terphenyl 115 70 - 130

Lab Sample ID: 890-2507-A-1-G MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 29167

Prep Type: Total/NA

Prep Batch: 29183

	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 F1	996	1172		mg/Kg		118	70 - 130	11	20	
(GRO)-C6-C10												
Diesel Range Organics (Over	<50.0	U	996	1003		mg/Kg		101	70 - 130	0	20	
C10-C28)												

C10-C28)

MSD MSD

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

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Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

QC Sample Results

 Client: Ensolum
 Job ID: 890-2505-1

 Project/Site: RDU 60
 SDG: 03A1987040

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29204/1-A

Matrix: Solid

Analysis Batch: 29449

MB MB

 Analyte
 Result Chloride
 Qualifier
 RL VIDIA
 MDL VIDIA
 Unit VIDIA
 D VIDIA
 Prepared VIDIA
 Analyzed VIDIA
 Dil Fac VIDIA

 Chloride
 <5.00</td>
 U
 5.00
 mg/Kg
 07/12/22 07:28
 1

Lab Sample ID: LCS 880-29204/2-A

Matrix: Solid

Analysis Batch: 29449

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 264.5 mg/Kg 106 90 - 110

Lab Sample ID: LCSD 880-29204/3-A

Matrix: Solid

Analysis Batch: 29449

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit Limits RPD Limit Chloride 250 263.0 105 mg/Kg 90 - 110

Lab Sample ID: 890-2503-A-13-C MS

Matrix: Solid

Analysis Batch: 29449

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier %Rec Unit Limits 2490 Chloride 5650 F1 7657 F1 81 90 - 110 mg/Kg

Lab Sample ID: 890-2503-A-13-D MSD

Matrix: Solid

Analysis Batch: 29449

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	5650	F1	2490	7625	F1	mg/Kg		79	90 - 110	0	20

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QC Association Summary

 Client: Ensolum
 Job ID: 890-2505-1

 Project/Site: RDU 60
 SDG: 03A1987040

GC VOA

Prep Batch: 29668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2505-1	FS01	Total/NA	Solid	5035	_
890-2505-2	FS02	Total/NA	Solid	5035	
MB 880-29668/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29668/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29668/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2547-A-21-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2547-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 29704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2505-1	FS01	Total/NA	Solid	8021B	29668
890-2505-2	FS02	Total/NA	Solid	8021B	29668
MB 880-29668/5-A	Method Blank	Total/NA	Solid	8021B	29668
LCS 880-29668/1-A	Lab Control Sample	Total/NA	Solid	8021B	29668
LCSD 880-29668/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29668
890-2547-A-21-A MS	Matrix Spike	Total/NA	Solid	8021B	29668
890-2547-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	29668

Analysis Batch: 29778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2505-1	FS01	Total/NA	Solid	Total BTEX	
890-2505-2	FS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 29167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2505-1	FS01	Total/NA	Solid	8015B NM	29183
890-2505-2	FS02	Total/NA	Solid	8015B NM	29183
MB 880-29183/1-A	Method Blank	Total/NA	Solid	8015B NM	29183
LCS 880-29183/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29183
LCSD 880-29183/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29183
890-2507-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	29183
890-2507-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29183

Prep Batch: 29183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2505-1	FS01	Total/NA	Solid	8015NM Prep	
890-2505-2	FS02	Total/NA	Solid	8015NM Prep	
MB 880-29183/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29183/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29183/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2507-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2507-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2505-1	FS01	Total/NA	Solid	8015 NM	
890-2505-2	FS02	Total/NA	Solid	8015 NM	

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QC Association Summary

 Client: Ensolum
 Job ID: 890-2505-1

 Project/Site: RDU 60
 SDG: 03A1987040

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Leach Batch: 29204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2505-1	FS01	Soluble	Solid	DI Leach	
890-2505-2	FS02	Soluble	Solid	DI Leach	
MB 880-29204/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29204/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29204/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2503-A-13-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2503-A-13-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 29449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2505-1	FS01	Soluble	Solid	300.0	29204
890-2505-2	FS02	Soluble	Solid	300.0	29204
MB 880-29204/1-A	Method Blank	Soluble	Solid	300.0	29204
LCS 880-29204/2-A	Lab Control Sample	Soluble	Solid	300.0	29204
LCSD 880-29204/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29204
890-2503-A-13-C MS	Matrix Spike	Soluble	Solid	300.0	29204
890-2503-A-13-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	29204

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Client: Ensolum Job ID: 890-2505-1 Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: FS01

Date Collected: 07/05/22 11:35 Date Received: 07/06/22 09:09

Lab Sample ID: 890-2505-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29668	07/13/22 13:45	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29704	07/14/22 17:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29778	07/14/22 19:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29287	07/08/22 11:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29183	07/07/22 09:35	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29167	07/07/22 15:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		10			29449	07/12/22 09:18	CH	XEN MID

Client Sample ID: FS02 Lab Sample ID: 890-2505-2

Date Collected: 07/05/22 12:05 Matrix: Solid

Date Received: 07/06/22 09:09

	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	29668	07/13/22 13:45	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29704	07/14/22 17:34	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29778	07/14/22 19:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29287	07/08/22 11:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29183	07/07/22 09:35	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29167	07/07/22 16:26	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		10			29449	07/12/22 09:28	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-2505-1 Project/Site: RDU 60 SDG: 03A1987040

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	NI	ELAP	T104704400-22-24	06-30-23
The fellowing analytes			and the contract of the contra	
the agency does not of		at the laboratory is not certific	ed by the governing authority. This list ma	ay include analytes for
0 ,		Matrix	ed by the governing authority. This list ma	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

Method Summary

 Client: Ensolum
 Job ID: 890-2505-1

 Project/Site: RDU 60
 SDG: 03A1987040

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

Protocol References:

DI Leach

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Deionized Water Leaching Procedure

Laboratory References:

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

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XEN MID

ASTM

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Sample Summary

Client: Ensolum
Project/Site: RDU 60

Job ID: 890-2505-1 SDG: 03A1987040

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2505-1	FS01	Solid	07/05/22 11:35	07/06/22 09:09	0.25'
890-2505-2	FS02	Solid	07/05/22 12:05	07/06/22 09:09	0.25'

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

March Marc		6			-		
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Manager:							
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Manager: JOSEPH HEMONACEZ Bill to: (if different) Mm (Editor) Min (575) 982-7550 Cariabad NM (575) 982-3199 NAWAXENCOCOM Page 1 of North Name: CANSOLUMN Company Name: DENON ENERGY CANSOLUMN Page 1 of North Name: CANSOLUMN Company Name: DENON ENERGY Program: UST/PST PRP Brownhelds RRC Name: RADU (a) Past: Jhandhad NM (575) 982-359 Program: UST/PST PRP Brownhelds RRC RRC Program: UST/PST PRP Brownhelds RRC PRP PST/UST TRRP PST/UST		1	er	-	Corrected Temperature:		otal Containers:
Xenco Amager: JOS-Ph HCMONOCC Bill to: (if different) Nm Factor Fact	Zn Acetate+NaOH: Zn		041	7,1	Temperature Reading:	Yes	imple Custody
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Xenco Elaso, TX (915) 585-3443, Lubbock, TX (806) 794-1296			110	Sdautat		ENAY COUN	oject Location:
Xenco Elaso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 992-7550, Carlisbad, NM (575) 988-3199 www.xenco.com Page 1 of Manager: UO SOP HCM Andress: DONO Enerty UM POICS Program: UST/PST PRP Brownfields RRC S127 NOA1 POICS Hobbs, NM (575) 988-3199 www.xenco.com Page 1 of Work Order Comments Work Order Comments Work Order Comments Work Order Comments Program: UST/PST PRP Brownfields RRC State of Project: State of Project: Reporting: Level III Level III PST/UST TRRP Andress: EDD ADAPT Other: Program: Preservative Comments Preservative Com						03419870	roject Number:
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	WOLK Older NO.	tonio, TX (210) 509-3334	432) /04-5440, San An	Midiand, IX		Young	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2505-1

SDG Number: 03A1987040

Login Number: 2505 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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2505-1

SDG Number: 03A1987040

Login Number: 2505 **List Source: Eurofins Midland** List Number: 2 List Creation: 07/07/22 10:57 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: 890-2506-1

Laboratory Sample Delivery Group: 03A1987040

Client Project/Site: RDU 60

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Joseph Hernandez

LAMER

7/18/2022 12:53:39 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

Have a Question?

EOL

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Review your project results through

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 12/9/2022 2:17:21 PM

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: RDU 60
Laboratory Job ID: 890-2506-1
SDG: 03A1987040

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Definitions/Glossary

Client: Ensolum Job ID: 890-2506-1 Project/Site: RDU 60 SDG: 03A1987040

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description** F1

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

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

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

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

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

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

Dil Fac **Dilution Factor**

Detection Limit (DoD/DOE) DL

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

DLC Decision Level Concentration (Radiochemistry)

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

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

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

Practical Quantitation Limit PQL

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RI 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
 Job ID: 890-2506-1

 Project/Site: RDU 60
 SDG: 03A1987040

Job ID: 890-2506-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2506-1

Receipt

The samples were received on 7/6/2022 9:09 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 1.2°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

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 Client: Ensolum
 Job ID: 890-2506-1

 Project/Site: RDU 60
 SDG: 03A1987040

Client Sample ID: PH01 Lab Sample ID: 890-2506-1

Date Collected: 07/05/22 11:50 Matrix: Solid
Date Received: 07/06/22 09:09

Sample Depth: 4'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 17:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 17:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 17:54	1
m-Xylene & p-Xylene	< 0.00401	U	0.00401		mg/Kg		07/13/22 13:45	07/14/22 17:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 17:54	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/13/22 13:45	07/14/22 17:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				07/13/22 13:45	07/14/22 17:54	1
1,4-Difluorobenzene (Surr)	90		70 - 130				07/13/22 13:45	07/14/22 17:54	1
Method: Total BTEX - Total B1	ΓEX Calcula	tion							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
								07/44/00 40:44	1
	<0.00401		0.00401 GC)		mg/Kg			07/14/22 19:41	ı
Method: 8015 NM - Diesel Rar	nge Organic	s (DRO) (0	SC)	MDI		D	Propared		
Total BTEX Method: 8015 NM - Diesel Rar Analyte Total TPH	nge Organic	s (DRO) (O Qualifier		MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/08/22 11:23	Dil Fac
Method: 8015 NM - Diesel Rar Analyte Total TPH	nge Organic Result <50.0	s (DRO) (O Qualifier U	RL 50.0	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Rar Analyte Total TPH Method: 8015B NM - Diesel Ra	nge Organic Result <50.0	s (DRO) (O	RL 50.0 (GC)		Unit mg/Kg	_ =	· ·	Analyzed 07/08/22 11:23	Dil Fac
Method: 8015 NM - Diesel Rar Analyte Total TPH Method: 8015B NM - Diesel Ra Analyte	nge Organic Result <50.0 ange Organ Result	S (DRO) (O Qualifier U	RL 50.0	MDL MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/08/22 11:23	Dil Fac
Method: 8015 NM - Diesel Rar Analyte Total TPH Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics	nge Organic Result <50.0	S (DRO) (O Qualifier U	RL 50.0 (GC)		Unit mg/Kg	_ =	Prepared	Analyzed 07/08/22 11:23	Dil Fac
Method: 8015 NM - Diesel Rar Analyte Total TPH Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	nge Organic Result <50.0 ange Organ Result	S (DRO) (O Qualifier U ics (DRO) Qualifier U	RL 50.0		Unit mg/Kg	_ =	Prepared 07/07/22 09:35	Analyzed 07/08/22 11:23	Dil Fac
Method: 8015 NM - Diesel Rar Analyte Total TPH Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10	rige Organic Result <50.0 ange Organ Result <50.0	s (DRO) (O Qualifier U ics (DRO) Qualifier U	(GC) RL 50.0 RL 50.0		Unit mg/Kg Unit mg/Kg	_ =	Prepared 07/07/22 09:35 07/07/22 09:35	Analyzed 07/08/22 11:23 Analyzed 07/07/22 16:48	Dil Fac
Method: 8015 NM - Diesel Rar Analyte Total TPH Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	rige Organic Result <50.0 ange Organ Result <50.0 <50.0	s (DRO) (O Qualifier U ics (DRO) Qualifier U	GC) RL 50.0 (GC) RL 50.0 50.0		Unit mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 07/07/22 09:35 07/07/22 09:35	Analyzed 07/08/22 11:23 Analyzed 07/07/22 16:48 07/07/22 16:48	Dil Fac
Method: 8015 NM - Diesel Rar Analyte Total TPH Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	nge Organic Result <50.0 ange Organ Result <50.0 <50.0 <50.0	s (DRO) (O Qualifier U ics (DRO) Qualifier U	GC) RL 50.0 (GC) RL 50.0 50.0 50.0		Unit mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 07/07/22 09:35 07/07/22 09:35	Analyzed 07/08/22 11:23 Analyzed 07/07/22 16:48 07/07/22 16:48	Dil Fac

Client Sample ID: PH02

Date Collected: 07/05/22 12:20

Lab Sample ID: 890-2506-2

Matrix: Solid

RL

4.99

MDL Unit

mg/Kg

D

Prepared

Analyzed

07/12/22 09:37

Dil Fac

Result Qualifier

402

Date Received: 07/06/22 09:09

Released to Imaging: 12/9/2022 2:17:21 PM

Sample Depth: 4'

Analyte

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 18:15	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 18:15	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 18:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/13/22 13:45	07/14/22 18:15	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 18:15	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/13/22 13:45	07/14/22 18:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				07/13/22 13:45	07/14/22 18:15	1

Eurofins Carlsbad

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Dil Fac

Analyzed

Prepared

07/07/22 09:35 07/07/22 17:10

07/07/22 09:35 07/07/22 17:10

 Client: Ensolum
 Job ID: 890-2506-1

 Project/Site: RDU 60
 SDG: 03A1987040

Client Sample ID: PH02 Lab Sample ID: 890-2506-2

Date Collected: 07/05/22 12:20 Matrix: Solid
Date Received: 07/06/22 09:09

Sample Depth: 4'

Surrogate

o-Terphenyl

1-Chlorooctane

Method: 8021B - Volatile Orga	anic Compo	unds (GC)	(Continued)						
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	89		70 - 130				07/13/22 13:45	07/14/22 18:15	1
 Method: Total BTEX - Total B	TEX Calcula	tion							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/14/22 19:41	1
_ Method: 8015 NM - Diesel Rai	nge Organic	s (DRO) (0	3C)						
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0				-	07/00/00 44:00	
_			50.0		mg/Kg			07/08/22 11:23	1
_ Method: 8015B NM - Diesel R	ange Organ	ics (DRO)			mg/kg			07/08/22 11:23	1
 Method: 8015B NM - Diesel R Analyte		ics (DRO) Qualifier		MDL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier	(GC)	MDL		<u>D</u>	Prepared 07/07/22 09:35		Dil Fac
Analyte	Result	Qualifier	(GC)	MDL	Unit	<u>D</u>		Analyzed	Dil Fac
Analyte Gasoline Range Organics	Result	Qualifier U	(GC)	MDL	Unit	<u>D</u>	07/07/22 09:35	Analyzed	1 Dil Fac 1

Method: 300.0 - Anions, Ion Ch	nromatograpl	hy - Soluble						
Analyte	Result Q	Qualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	561	4.98		mg/Kg			07/16/22 03:31	1

Limits

70 - 130

70 - 130

%Recovery Qualifier

119

127

Surrogate Summary

 Client: Ensolum
 Job ID: 890-2506-1

 Project/Site: RDU 60
 SDG: 03A1987040

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Per	cent Surrogate Re
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2506-1	PH01	106	90	
890-2506-2	PH02	111	89	
890-2547-A-21-A MS	Matrix Spike	101	98	
890-2547-A-21-B MSD	Matrix Spike Duplicate	102	98	
LCS 880-29668/1-A	Lab Control Sample	102	97	
LCSD 880-29668/2-A	Lab Control Sample Dup	103	97	
MB 880-29668/5-A	Method Blank	95	87	
Surrogate Legend				

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

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

Matrix: Solid Prep Type: Total/NA

			Percen	t Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2506-1	PH01	100	107	
890-2506-2	PH02	119	127	
890-2507-A-1-F MS	Matrix Spike	115	115	
890-2507-A-1-G MSD	Matrix Spike Duplicate	116	116	
LCS 880-29183/2-A	Lab Control Sample	124	136 S1+	
LCSD 880-29183/3-A	Lab Control Sample Dup	105	109	
MB 880-29183/1-A	Method Blank	114	128	

Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Eurofins Carlsbad

Released to Imaging: 12/9/2022 2:17:21 PM

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Client: Ensolum Job ID: 890-2506-1 Project/Site: RDU 60 SDG: 03A1987040

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29668/5-A

Matrix: Solid

Analysis Batch: 29704

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29668

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/13/22 13:45	07/14/22 12:09	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95	70 - 130	07/13/22 13:45	07/14/22 12:09	1
1,4-Difluorobenzene (Surr)	87	70 - 130	07/13/22 13:45	07/14/22 12:09	1

Lab Sample ID: LCS 880-29668/1-A

Matrix: Solid

Analysis Batch: 29704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29668

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1010		mg/Kg		101	70 - 130	
Toluene	0.100	0.1014		mg/Kg		101	70 - 130	
Ethylbenzene	0.100	0.1042		mg/Kg		104	70 - 130	
m-Xylene & p-Xylene	0.200	0.2071		mg/Kg		104	70 - 130	
o-Xylene	0.100	0.1137		mg/Kg		114	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-29668/2-A

Matrix: Solid

Analysis Batch: 29704

Client Sample I	D: Lab	Control	Sample	Dup

Prep Type: Total/NA Prep Batch: 29668

	Spike	LCSD LCSD)		%Rec		RPD
Analyte	Added	Result Quali	fier Unit	D %Rec	Limits	RPD	Limit
Benzene	0.100	0.09464	mg/Kg	95	70 - 130	7	35
Toluene	0.100	0.09323	mg/Kg	93	70 - 130	8	35
Ethylbenzene	0.100	0.09660	mg/Kg	97	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1923	mg/Kg	96	70 - 130	7	35
o-Xylene	0.100	0.1056	mg/Kg	106	70 - 130	7	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1.4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-2547-A-21-A MS

Matrix: Solid

Analysis Batch: 29704

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

Prep Batch: 29668

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits mg/Kg Benzene <0.00200 U 0.0998 0.08907 89 70 - 130 Toluene <0.00200 U 0.0998 0.08627 mg/Kg 86 70 - 130

QC Sample Results

Client: Ensolum Job ID: 890-2506-1 Project/Site: RDU 60 SDG: 03A1987040

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

Client Sample ID: Matrix Spike Lab Sample ID: 890-2547-A-21-A MS **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 29704** Prep Batch: 29668

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00200	U	0.0998	0.09019		mg/Kg		90	70 - 130	
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1790		mg/Kg		90	70 - 130	
o-Xylene	<0.00200	U	0.0998	0.09784		mg/Kg		98	70 - 130	

MS MS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 101 70 - 130 1,4-Difluorobenzene (Surr) 70 - 130 98

Lab Sample ID: 890-2547-A-21-B MSD **Client Sample ID: Matrix Spike Duplicate** Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 29704								Prep Batch: 2966				
-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	<0.00200	U	0.0994	0.08773		mg/Kg		88	70 - 130	2	35	
Toluene	<0.00200	U	0.0994	0.08563		mg/Kg		86	70 - 130	1	35	
Ethylbenzene	<0.00200	U	0.0994	0.08825		mg/Kg		89	70 - 130	2	35	
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1751		mg/Kg		88	70 - 130	2	35	
o-Xylene	<0.00200	U	0.0994	0.09619		mg/Kg		97	70 - 130	2	35	

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

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

Lab Sample ID: MB 880-29183/1-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA Prep Batch: 29183 **Analysis Batch: 29167**

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/07/22 09:35	07/07/22 10:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/07/22 09:35	07/07/22 10:03	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/07/22 09:35	07/07/22 10:03	1

MB MB Dil Fac Surrogate %Recovery Qualifier Limits Prepared Analyzed 1-Chlorooctane 70 - 130 07/07/22 09:35 07/07/22 10:03 114 128 70 - 130 07/07/22 09:35 07/07/22 10:03 o-Terphenyl

Lab Sample ID: LCS 880-29183/2-A **Client Sample ID: Lab Control Sample**

Analysis Batch: 29167 Prep Batch: 29183 LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1136 114 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1143 mg/Kg 114 70 - 130

Eurofins Carlsbad

Prep Type: Total/NA

Matrix: Solid

C10-C28)

Client: Ensolum Job ID: 890-2506-1
Project/Site: RDU 60 SDG: 03A1987040

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

Lab Sample ID: LCS 880-29183/2-A

Matrix: Solid

Analysis Batch: 29167

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29183

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 124
 70 - 130

 o-Terphenyl
 136
 S1+
 70 - 130

Lab Sample ID: LCSD 880-29183/3-A

Matrix: Solid

Analysis Batch: 29167

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29183

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 1093 mg/Kg 109 70 - 130 4 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1022 mg/Kg 102 70 - 130 11 20 C10-C28)

LCSD LCSD

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 105
 70 - 130

 o-Terphenyl
 109
 70 - 130

Lab Sample ID: 890-2507-A-1-F MS

Matrix: Solid

Analysis Batch: 29167

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 29183

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Limits Analyte Unit D %Rec <50.0 U F1 1311 F1 Gasoline Range Organics 997 mg/Kg 132 70 - 130 (GRO)-C6-C10 997 Diesel Range Organics (Over <50.0 U 1006 mg/Kg 101 70 - 130 C10-C28)

C 10-C26)

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 115
 70 - 130

 o-Terphenyl
 115
 70 - 130

Lab Sample ID: 890-2507-A-1-G MSD

Matrix: Solid

Analysis Batch: 29167

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29183

Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Added Result Qualifier Limits **RPD** Limit **Analyte** Unit %Rec Gasoline Range Organics <50.0 U F1 996 1172 118 70 - 130 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 996 1003 mg/Kg 101 70 - 130 0 20

C10-C28)

MSD MSD

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 116
 70 - 130

 o-Terphenyl
 116
 70 - 130

Job ID: 890-2506-1 SDG: 03A1987040

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29204/1-A

Client Sample ID: Method Blank

Prep Type: Soluble

Analysis Batch: 29449

Client: Ensolum

Matrix: Solid

Analyte

Chloride

Project/Site: RDU 60

MB MB Result Qualifier RL **MDL** Unit Analyzed Dil Fac D Prepared 5.00 07/12/22 07:28 <5.00 U mg/Kg

Lab Sample ID: LCS 880-29204/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Prep Type: Soluble

Analysis Batch: 29449

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 264.5 90 - 110 mg/Kg 106

Lab Sample ID: LCSD 880-29204/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid**

Prep Type: Soluble

Client Sample ID: Matrix Spike Duplicate

Analysis Batch: 29449

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Limits **RPD** Limit Unit %Rec Chloride 250 263.0 105 90 - 110 mg/Kg

Lab Sample ID: 890-2507-A-2-G MS **Client Sample ID: Matrix Spike Matrix: Solid Prep Type: Soluble**

Analysis Batch: 29449

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 248 297.4 37.2 mg/Kg 105 90 - 110

Lab Sample ID: 890-2507-A-2-H MSD

Matrix: Solid

Analysis Batch: 29449

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Unit %Rec Limits RPD Limit Result Qualifier Chloride 37.2 248 297.1 105 90 - 110 20 mg/Kg 0

QC Association Summary

Job ID: 890-2506-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

GC VOA

Prep Batch: 29668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2506-1	PH01	Total/NA	Solid	5035	
890-2506-2	PH02	Total/NA	Solid	5035	
MB 880-29668/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29668/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29668/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2547-A-21-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2547-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 29704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2506-1	PH01	Total/NA	Solid	8021B	29668
890-2506-2	PH02	Total/NA	Solid	8021B	29668
MB 880-29668/5-A	Method Blank	Total/NA	Solid	8021B	29668
LCS 880-29668/1-A	Lab Control Sample	Total/NA	Solid	8021B	29668
LCSD 880-29668/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29668
890-2547-A-21-A MS	Matrix Spike	Total/NA	Solid	8021B	29668
890-2547-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	29668

Analysis Batch: 29779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2506-1	PH01	Total/NA	Solid	Total BTEX	
890-2506-2	PH02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 29167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2506-1	PH01	Total/NA	Solid	8015B NM	29183
890-2506-2	PH02	Total/NA	Solid	8015B NM	29183
MB 880-29183/1-A	Method Blank	Total/NA	Solid	8015B NM	29183
LCS 880-29183/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29183
LCSD 880-29183/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29183
890-2507-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	29183
890-2507-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29183

Prep Batch: 29183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2506-1	PH01	Total/NA	Solid	8015NM Prep	
890-2506-2	PH02	Total/NA	Solid	8015NM Prep	
MB 880-29183/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29183/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29183/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2507-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2507-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2506-1	PH01	Total/NA	Solid	8015 NM	
890-2506-2	PH02	Total/NA	Solid	8015 NM	

QC Association Summary

 Client: Ensolum
 Job ID: 890-2506-1

 Project/Site: RDU 60
 SDG: 03A1987040

HPLC/IC

Leach Batch: 29204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2506-1	PH01	Soluble	Solid	DI Leach	
890-2506-2	PH02	Soluble	Solid	DI Leach	
MB 880-29204/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29204/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29204/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2507-A-2-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2507-A-2-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 29449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2506-1	PH01	Soluble	Solid	300.0	29204
MB 880-29204/1-A	Method Blank	Soluble	Solid	300.0	29204
LCS 880-29204/2-A	Lab Control Sample	Soluble	Solid	300.0	29204
LCSD 880-29204/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29204
890-2507-A-2-G MS	Matrix Spike	Soluble	Solid	300.0	29204
890-2507-A-2-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	29204

Analysis Batch: 29656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2506-2	PH02	Soluble	Solid	300.0	29204

Eurofins Carlsbad

Released to Imaging: 12/9/2022 2:17:21 PM

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Date Collected: 07/05/22 11:50

Date Received: 07/06/22 09:09

Client: Ensolum

Job ID: 890-2506-1 SDG: 03A1987040

Project/Site: RDU 60 **Client Sample ID: PH01**

Lab Sample ID: 890-2506-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	29668	07/13/22 13:45	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29704	07/14/22 17:54	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29779	07/14/22 19:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29288	07/08/22 11:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29183	07/07/22 09:35	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29167	07/07/22 16:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		1			29449	07/12/22 09:37	CH	XEN MID

Client Sample ID: PH02 Lab Sample ID: 890-2506-2

Date Collected: 07/05/22 12:20 **Matrix: Solid** Date Received: 07/06/22 09:09

Batch Batch Dil Initial Final Batch Prepared Method **Prep Type** Type Run **Factor Amount** Amount Number or Analyzed **Analyst** Lab Total/NA 5035 29668 07/13/22 13:45 MR XEN MID Prep 4.97 g 5 mL 8021B Total/NA 5 mL 29704 07/14/22 18:15 MR XEN MID Analysis 5 mL 1 Total/NA Total BTEX Analysis 1 29779 07/14/22 19:41 AJ XEN MID Total/NA 8015 NM 07/08/22 11:23 AJ XEN MID Analysis 1 29288 Total/NA Prep 8015NM Prep 10.01 g 10 mL 29183 07/07/22 09:35 AM XEN MID Total/NA 8015B NM 07/07/22 17:10 AJ XEN MID Analysis 1 29167 Soluble 07/07/22 12:33 SMC XEN MID DI Leach 5.02 g 50 mL 29204 Leach 300.0 07/16/22 03:31 CH Soluble Analysis 1 29656 **XEN MID**

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-2506-1

 Project/Site: RDU 60
 SDG: 03A1987040

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	NELAP		T104704400-22-24	06-30-23	
The following analyte	s are included in this repo	ort but the laboratory is r	not certified by the governing authority.	This list may include analytes for w	
the agency does not	•	, 24: 1	iot ocitined by the governing dutherny.	This list may include analytes for w	
the agency does not of Analysis Method	•	Matrix	Analyte	This list may include undryles for w	
0 ,	offer certification.	•	, , ,	This list may include analytes for w	

Method Summary

 Client: Ensolum
 Job ID: 890-2506-1

 Project/Site: RDU 60
 SDG: 03A1987040

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

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Sample Summary

Client: Ensolum Project/Site: RDU 60 Job ID: 890-2506-1 SDG: 03A1987040

 Lab Sample ID
 Client Sample ID
 Matrix
 Collected
 Received
 Depth

 890-2506-1
 PH01
 Solid
 07/05/22 11:50
 07/06/22 09:09
 4'

 890-2506-2
 PH02
 Solid
 07/05/22 12:20
 07/06/22 09:09
 4'

3

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Shed by: (Signature)

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

Total 200.7 / 6010

200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu

TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb M

f 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 ci lotice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assign

Feurofins 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

Received by: (Signature)

60 DEC . 9).

Date/Time

eurofins 🔆

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

	www.xenco.com	Page Of
	Work Order Comments	omments
200	Program: UST/PST PRP Brov	Brownfields ☐ RRC ☐ Superfund ☐
Ha Dr.	State of Project:	
N 80270	Reporting: Level II Level III F	PST/UST TRRP Level IV
D	Deliverables: EDD ADaf	ADaPT Other:
ANALYSIS REQUEST		Preservative Codes
		None: NO DI Water: H ₂ O
		Cool: Cool MeOH: Me
		HCL: HC HNO 3: HN
-	-	H ₂ S0 ₄ : H ₂ NaOH: Na
		H ₃ PO ₄ : HP
		NaHSO 4: NABIS
		Na ₂ S ₂ O ₃ : NaSO ₃
890-2506 Chain of Ct	Custody	Zn Acetate+NaOH: Zn
		NaOH+Ascorbic Acid: SAPC
		Sample Comments
		Incident number
		napp2216732906
		cost center
		10/21/21/9/01
COCU FE PB Mg Mn Mo	Mo Ni K Se Ag SiO ₂ Na Sr TI U Hn: 1631 / 245 1	TI Sn U V Zn /7470 /7471
contractors. It assigns standard terms and conditions I losses are due to circumstances beyond the control I. These terms will be enforced unless previously negotlated.	d conditions the control viously negotiated.	
Relinquished by: (Signature)	Received by: (Signature)) Date/Time

SAMPLE RECEIPT

Project Location:

ampler's Name:

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Project Name:

PDU 60

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Email:

Jhemandez

Pensolum can

Turn Around

Rush

Code

OSAIQS Touc

dely Country NA

Due Date: Moutine

Scian tat

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

Wet Ice:

Parameters

roject Number:

City, State ZIP: Address: Project Manager

ompany Name:

Ensolum

Joseph Hemander

3172 Natl Parks HWA

Address:

5315 Buena Vultu

Arisbad NM 882

Ocyan Energy

im Raieu

Company Name: Bill to: (if different)

City, State ZIP:

OCISS WN POCKSIND

Cooler Custody Seals:

amples Received Intact:

Sample Custody Seals:

Yes No N/A Yes No (N/A Yes No Temp Blank:

> Correction Factor: Thermometer ID:

10.00 2 5

btex epamethod 8021B

tph epa method 8015 MD

Chloride epa noma 300.0

Corrected Temperature Temperature Reading:

PHOI PHO2

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RISIL

1220 1150

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Sample Identification

Matrix

Sampled

Sampled

Date

Time

Depth

Comp Grab/

Cont # of

Work Order No:

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Revised Date 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2506-1

SDG Number: 03A1987040

Login Number: 2506 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.	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	

Euronnis Carisbau

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2506-1

SDG Number: 03A1987040

List Source: Eurofins Midland
List Number: 2
List Creation: 07/07/22 10:57 AM

Creator: Rodriguez, Leticia

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

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2507-1

Laboratory Sample Delivery Group: 03A1987040

Client Project/Site: RDU 60

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Joseph Hernandez

JURAMER

Authorized for release by: 7/18/2022 10:38:36 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

32)704-5440

Review your project results through EO L.

Have a Question?

Ask
The

Visit us at:

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Released to Imaging: 12/9/2022 2:17:21 PM

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.

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Client: Ensolum
Project/Site: RDU 60
Laboratory Job ID: 890-2507-1
SDG: 03A1987040

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Definitions/Glossary

Job ID: 890-2507-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

Qualifiers

GC VOA

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

Indicates the analyte was analyzed for but not detected.

Qualifier Description

GC Semi VOA

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

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

Glossan

DL, RA, RE, IN

DLC

Qualifier

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
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)

Decision Level Concentration (Radiochemistry) EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry) MDL Method Detection Limit

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) 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) Toxicity Equivalent Quotient (Dioxin) TEQ

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum Job ID: 890-2507-1 SDG: 03A1987040 Project/Site: RDU 60

Job ID: 890-2507-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2507-1

Receipt

The samples were received on 7/6/2022 9:09 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 1.2°C

GC VOA

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

GC Semi VOA

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

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

Eurofins Carlsbad 7/18/2022

Matrix: Solid

Lab Sample ID: 890-2507-1

Client Sample Results

Client: Ensolum Job ID: 890-2507-1 Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: PH03

Date Collected: 07/05/22 13:28 Date Received: 07/06/22 09:09

Sample Depth: 0.5'

	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 18:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 18:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 18:35	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/13/22 13:45	07/14/22 18:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 18:35	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/13/22 13:45	07/14/22 18:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				07/13/22 13:45	07/14/22 18:35	1
1,4-Difluorobenzene (Surr)	90		70 - 130				07/13/22 13:45	07/14/22 18:35	1
- Method: Total BTEX - Total BTE	X Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			07/14/22 19:40	1
		1 1							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total TPH		Qualifier U	RL 50.0	MDL	Unit mg/Kg	D	Prepared	Analyzed 07/08/22 11:23	
Total TPH	<50.0	U		MDL		<u>D</u>	Prepared		
Total TPH Method: 8015B NM - Diesel Rang	<50.0	U (GC)	50.0		mg/Kg			07/08/22 11:23	1
Total TPH Method: 8015B NM - Diesel Rang Analyte	<50.0 ge Organics (D Result	RO) (GC) Qualifier	50.0	MDL	mg/Kg	<u>D</u>	Prepared	07/08/22 11:23 Analyzed	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	<50.0	RO) (GC) Qualifier	50.0		mg/Kg			07/08/22 11:23	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	<50.0 ge Organics (D) Result <50.0	RO) (GC) Qualifier U F1	50.0 RL 50.0		mg/Kg Unit mg/Kg		Prepared 07/07/22 09:35	07/08/22 11:23 Analyzed 07/07/22 11:45	Dil Fac
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<50.0 ge Organics (D Result	RO) (GC) Qualifier U F1	50.0		mg/Kg		Prepared	07/08/22 11:23 Analyzed	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	<50.0 ge Organics (D) Result <50.0	RO) (GC) Qualifier U F1	50.0 RL 50.0		mg/Kg Unit mg/Kg		Prepared 07/07/22 09:35	07/08/22 11:23 Analyzed 07/07/22 11:45	Dil Fac
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0 ge Organics (D) Result <50.0 <50.0	U RO) (GC) Qualifier U F1 U	50.0 RL 50.0 50.0		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/07/22 09:35 07/07/22 09:35	07/08/22 11:23 Analyzed 07/07/22 11:45 07/07/22 11:45	Dil Fac
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0 ge Organics (D) Result <50.0 <50.0 <50.0	U RO) (GC) Qualifier U F1 U	50.0 RL 50.0 50.0 50.0		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/07/22 09:35 07/07/22 09:35	07/08/22 11:23 Analyzed 07/07/22 11:45 07/07/22 11:45	Dil Face
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<50.0 ge Organics (D) Result <50.0 <50.0 <50.0 %Recovery	U RO) (GC) Qualifier U F1 U	50.0 RL 50.0 50.0 50.0 Limits		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/07/22 09:35 07/07/22 09:35 07/07/22 09:35 Prepared	07/08/22 11:23 Analyzed 07/07/22 11:45 07/07/22 11:45 Analyzed	Dil Fac
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<50.0 ge Organics (D) Result <50.0 <50.0 <50.0 <80.0 *Recovery 106 115	U RO) (GC) Qualifier U F1 U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/07/22 09:35 07/07/22 09:35 07/07/22 09:35 Prepared 07/07/22 09:35	07/08/22 11:23 Analyzed 07/07/22 11:45 07/07/22 11:45 Analyzed 07/07/22 11:45	Dil Fac
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<50.0 ge Organics (D) Result <50.0 <50.0 <50.0 <50.0 <70.0 *Recovery 106 115 omatography -	U RO) (GC) Qualifier U F1 U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130		mg/Kg Unit mg/Kg mg/Kg mg/Kg		Prepared 07/07/22 09:35 07/07/22 09:35 07/07/22 09:35 Prepared 07/07/22 09:35	07/08/22 11:23 Analyzed 07/07/22 11:45 07/07/22 11:45 Analyzed 07/07/22 11:45	Dil Fac

Client Sample ID: PH03

Date Collected: 07/05/22 13:30 Date Received: 07/06/22 09:09

Sample Depth: 1'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 18:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 18:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 18:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/13/22 13:45	07/14/22 18:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 18:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/13/22 13:45	07/14/22 18:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				07/13/22 13:45	07/14/22 18:56	1

Eurofins Carlsbad

Lab Sample ID: 890-2507-2

Matrix: Solid

Client: Ensolum Job ID: 890-2507-1 Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: PH03

Lab Sample ID: 890-2507-2 Date Collected: 07/05/22 13:30 Matrix: Solid

Date Received: 07/06/22 09:09

Sample Depth: 1'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	90		70 - 130	07/13/22 13:45	07/14/22 18:56	1

Mathad:	Total	RTFY.	. Total	RTEY	Calculation

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402 U	0.00402	ma/Ka			07/14/22 19:40	1

Method: 8015 NM - Diesel	Range Organics (DRO) (GO	2)

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8 U	49.8	mg/Kg			07/08/22 11:23	1

Mathadi 001ED	NM Discal Day	an Organian	(DBO) (CC)
Method: 8015B	nivi - Diesei Kai	ide Ordanics	IDKUI IGGI

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		07/07/22 09:35	07/07/22 12:49	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/07/22 09:35	07/07/22 12:49	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/07/22 09:35	07/07/22 12:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepare	ed	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	07/07/22 0	9:35	07/07/22 12:49	1
o-Terphenyl	110		70 - 130	07/07/22 0	9:35	07/07/22 12:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.2		4.95		mg/Kg		•	07/12/22 10:41	1

Client Sample ID: PH04 Lab Sample ID: 890-2507-3

Date Collected: 07/05/22 13:40 Date Received: 07/06/22 09:09

Sample Depth: 0.5'

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

Michiga. 002 1D - Volatile Orga	ine compounds	(30)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 19:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 19:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 19:16	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/13/22 13:45	07/14/22 19:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 19:16	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/13/22 13:45	07/14/22 19:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				07/13/22 13:45	07/14/22 19:16	1
1,4-Difluorobenzene (Surr)	87		70 - 130				07/13/22 13:45	07/14/22 19:16	1

Method:	Total R	TFY - T	ntal RT	FX Calcu	ılation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg		_	07/14/22 19:40	1

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

Analyte	•	•	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH			<49.8	U	49.8		mg/Kg			07/08/22 11:23	1

Eurofins Carlsbad

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-2507-3

Client: Ensolum Job ID: 890-2507-1 Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: PH04

Date Collected: 07/05/22 13:40 Date Received: 07/06/22 09:09

Sample Depth: 0.5'

Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		07/07/22 09:35	07/07/22 13:11	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/07/22 09:35	07/07/22 13:11	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/07/22 09:35	07/07/22 13:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130				07/07/22 09:35	07/07/22 13:11	1
o-Terphenyl	113		70 - 130				07/07/22 09:35	07/07/22 13:11	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	410		24.9		mg/Kg			07/12/22 11:09	5

Client Sample ID: PH04 Lab Sample ID: 890-2507-4 Date Collected: 07/05/22 13:45 Matrix: Solid

Date Received: 07/06/22 09:09

Sample Depth: 1'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 19:37	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 19:37	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 19:37	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/13/22 13:45	07/14/22 19:37	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:45	07/14/22 19:37	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/13/22 13:45	07/14/22 19:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				07/13/22 13:45	07/14/22 19:37	1
1,4-Difluorobenzene (Surr)	88		70 - 130				07/13/22 13:45	07/14/22 19:37	1
Method: Total BTEX - Total BTEX	(Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/14/22 19:40	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	88.9		49.9		mg/Kg			07/08/22 11:23	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	88.9		49.9		mg/Kg		07/07/22 09:35	07/07/22 13:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/07/22 09:35	07/07/22 13:32	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/07/22 09:35	07/07/22 13:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130				07/07/22 09:35	07/07/22 13:32	1
o-Terphenyl	119		70 ₋ 130				07/07/22 09:35	07/07/22 13:32	1

Client: Ensolum Job ID: 890-2507-1 Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: PH04 Lab Sample ID: 890-2507-4 Date Collected: 07/05/22 13:45

Matrix: Solid

Date Received: 07/06/22 09:09 Sample Depth: 1'

Method: 300.0 - Anions, Ion Chromatography - Soluble										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	259		5.04		mg/Kg			07/12/22 11:18	1

Client Sample ID: PH05 Lab Sample ID: 890-2507-5 **Matrix: Solid**

Date Collected: 07/05/22 14:00 Date Received: 07/06/22 09:09

Method: Total BTEX - Total BTEX Calculation

Sample Depth: 0.5'

Analyte

Total BTEX

o-Terphenyl

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 19:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 19:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 19:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/13/22 13:45	07/14/22 19:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 19:57	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/13/22 13:45	07/14/22 19:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130				07/13/22 13:45	07/14/22 19:57	1
1,4-Difluorobenzene (Surr)	88		70 - 130				07/13/22 13:45	07/14/22 19:57	1

					0 0				
Method: 8015 NM - Diesel Rang	ge Organics (DR	O) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			07/08/22 11:23	1
Method: 8015B NM - Diesel Ra	nge Organics (D	RO) (GC)							
Analyte	• •	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics		П	49 9		ma/Ka		07/07/22 09:35	07/07/22 13:54	

0.00399

MDL Unit

mg/Kg

Prepared

07/07/22 09:35

Analyzed

07/14/22 19:40

07/07/22 13:54

Result Qualifier

<0.00399 U

110

1-Chlorooctane	103		70 - 130		07/07/22 09:35	07/07/22 13:54	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	07/07/22 09:35	07/07/22 13:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg	07/07/22 09:35	07/07/22 13:54	1
(GRO)-C6-C10	~43.3	U	49.9	mg/kg	01/01/22 09.55	07/07/22 13.34	'

Method: 300.0 - Anions, Ion Chron	natography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	568		4.99		mg/Kg			07/12/22 11:46	1

70 - 130

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Dil Fac

Matrix: Solid

Lab Sample ID: 890-2507-6

Client Sample Results

 Client: Ensolum
 Job ID: 890-2507-1

 Project/Site: RDU 60
 SDG: 03A1987040

Client Sample ID: PH05

Date Collected: 07/05/22 14:05 Date Received: 07/06/22 09:09

Sample Depth: 1'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:52	07/14/22 17:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:52	07/14/22 17:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:52	07/14/22 17:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/13/22 13:52	07/14/22 17:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:52	07/14/22 17:42	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/13/22 13:52	07/14/22 17:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130				07/13/22 13:52	07/14/22 17:42	1
1,4-Difluorobenzene (Surr)	83		70 - 130				07/13/22 13:52	07/14/22 17:42	1
- Method: Total BTEX - Total BTE)	(Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/14/22 19:40	1
Analyte Total TPH	<50.0	Qualifier U		MDL	mg/Kg	<u>D</u>	Prepared	Analyzed 07/08/22 11:23	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/08/22 11:23	1
Method: 8015B NM - Diesel Rang									
Analyte		Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/07/22 09:35	07/07/22 14:16	1
Discal Dange Organica (Over	<50.0	11	50.0		mg/Kg		07/07/22 09:35	07/07/22 14:16	4
	\30.0	O	50.0		9/119				1
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0		50.0		mg/Kg		07/07/22 09:35	07/07/22 14:16	
C10-C28)		U						07/07/22 14:16 Analyzed	1
C10-C28) OII Range Organics (Over C28-C36)	<50.0	U	50.0				07/07/22 09:35		1 Dil Fac
C10-C28) OII Range Organics (Over C28-C36) Surrogate	<50.0	U	50.0 <i>Limits</i>				07/07/22 09:35 Prepared	Analyzed	1 Dil Fac
C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<50.0 **Recovery 107 113	U Qualifier	50.0 Limits 70 - 130				07/07/22 09:35 Prepared 07/07/22 09:35	Analyzed 07/07/22 14:16	1 Dil Fac
C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<50.0 **Recovery 107 113 **pomatography -	U Qualifier	50.0 Limits 70 - 130	MDL		D	07/07/22 09:35 Prepared 07/07/22 09:35	Analyzed 07/07/22 14:16	1 Dil Fac

Client Sample ID: PH06

Date Collected: 07/05/22 14:30

Date Received: 07/06/22 09:09
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:52	07/14/22 18:08	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:52	07/14/22 18:08	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:52	07/14/22 18:08	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/13/22 13:52	07/14/22 18:08	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/13/22 13:52	07/14/22 18:08	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/13/22 13:52	07/14/22 18:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130				07/13/22 13:52	07/14/22 18:08	1

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Lab Sample ID: 890-2507-7

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Matrix: Solid

 Client: Ensolum
 Job ID: 890-2507-1

 Project/Site: RDU 60
 SDG: 03A1987040

Client Sample ID: PH06 Lab Sample ID: 890-2507-7

Date Collected: 07/05/22 14:30 Matrix: Solid

Date Received: 07/06/22 09:09 Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compo	ounds (GC)	(Continued)
modification totaling organic compa	Julius (33)	(Continuou,

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	75	70 - 130	07/13/22 13:52	07/14/22 18:08	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402 U	0.00402	ma/Ka			07/14/22 19:40	1

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

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9 U	49.9	ma/Ka			07/08/22 11:23	1	

		_			
Method: 8015B	NM - Diesel	Range Org	ranics ('DROL	GC
motriou. ou rob	THE DIGGOL	itunge or	garnoo (D. (U)	(–

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/07/22 09:35	07/15/22 00:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/07/22 09:35	07/15/22 00:49	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/07/22 09:35	07/15/22 00:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97	70 - 130	07/07/22 09:35	07/15/22 00:49	1
o-Terphenyl	111	70 - 130	07/07/22 09:35	07/15/22 00:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130	24.9	mg/Kg			07/12/22 12:04	5

Client Sample ID: PH06

Lab Sample ID: 890-2507-8

Date Collected: 07/05/22 14:35

Matrix: Solid

Date Collected: 07/05/22 14:35 Date Received: 07/06/22 09:09

Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:52	07/14/22 18:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:52	07/14/22 18:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:52	07/14/22 18:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/13/22 13:52	07/14/22 18:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:52	07/14/22 18:34	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/13/22 13:52	07/14/22 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130				07/13/22 13:52	07/14/22 18:34	1
1,4-Difluorobenzene (Surr)	78		70 - 130				07/13/22 13:52	07/14/22 18:34	1

Mothod:	Total RT	EY - Tota	I DTEY	Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00401	U	0.00401		ma/Ka			07/14/22 19:40	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC	Method: 8015 NM -	- Diesel Range	Organics (DRO)	(GC
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Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9 U	49.9	mg/Kg			07/08/22 11:23	1

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Matrix: Solid

Lab Sample ID: 890-2507-8

Analyzed

07/12/22 12:14

Client Sample Results

 Client: Ensolum
 Job ID: 890-2507-1

 Project/Site: RDU 60
 SDG: 03A1987040

Client Sample ID: PH06

Date Collected: 07/05/22 14:35 Date Received: 07/06/22 09:09

Sample Depth: 1'

Analyte

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/07/22 09:35	07/07/22 14:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/07/22 09:35	07/07/22 14:59	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/07/22 09:35	07/07/22 14:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130				07/07/22 09:35	07/07/22 14:59	1
o-Terphenyl	110		70 - 130				07/07/22 09:35	07/07/22 14:59	1

RL

25.0

Result Qualifier

172

MDL Unit

mg/Kg

D

Prepared

12

Dil Fac

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13

Surrogate Summary

Job ID: 890-2507-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

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)	
890-2507-1	PH03	106	90	
890-2507-2	PH03	109	90	
890-2507-3	PH04	103	87	
890-2507-4	PH04	109	88	
890-2507-5	PH05	107	88	
890-2507-6	PH05	130	83	
890-2507-7	PH06	130	75	
890-2507-8	PH06	140 S1+	78	
890-2547-A-21-A MS	Matrix Spike	101	98	
890-2547-A-21-B MSD	Matrix Spike Duplicate	102	98	
890-2547-A-31-F MS	Matrix Spike	132 S1+	82	
890-2547-A-31-G MSD	Matrix Spike Duplicate	123	84	
LCS 880-29668/1-A	Lab Control Sample	102	97	
LCS 880-29669/1-A	Lab Control Sample	122	86	
LCSD 880-29668/2-A	Lab Control Sample Dup	103	97	
LCSD 880-29669/2-A	Lab Control Sample Dup	124	84	
MB 880-29668/5-A	Method Blank	95	87	
MB 880-29669/5-A	Method Blank	95	77	
Surrogate Legend				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2507-1	PH03	106	115	
890-2507-1 MS	PH03	115	115	
890-2507-1 MSD	PH03	116	116	
890-2507-2	PH03	103	110	
890-2507-3	PH04	107	113	
890-2507-4	PH04	110	119	
890-2507-5	PH05	103	110	
890-2507-6	PH05	107	113	
890-2507-7	PH06	97	111	
890-2507-8	PH06	103	110	
_CS 880-29183/2-A	Lab Control Sample	124	136 S1+	
LCSD 880-29183/3-A	Lab Control Sample Dup	105	109	
MB 880-29183/1-A	Method Blank	114	128	

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OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2507-1 SDG: 03A1987040 Project/Site: RDU 60

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29668/5-A

Matrix: Solid

Analysis Batch: 29704

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29668

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	•
Toluene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/13/22 13:45	07/14/22 12:09	
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/13/22 13:45	07/14/22 12:09	
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/13/22 13:45	07/14/22 12:09	

мв мв

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95	70 - 130	07/13/22 13:45	07/14/22 12:09	1
1,4-Difluorobenzene (Surr)	87	70 - 130	07/13/22 13:45	07/14/22 12:09	1

Lab Sample ID: LCS 880-29668/1-A

Matrix: Solid

Analysis Batch: 29704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29668

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1010		mg/Kg		101	70 - 130	
Toluene	0.100	0.1014		mg/Kg		101	70 - 130	
Ethylbenzene	0.100	0.1042		mg/Kg		104	70 - 130	
m-Xylene & p-Xylene	0.200	0.2071		mg/Kg		104	70 - 130	
o-Xylene	0.100	0.1137		mg/Kg		114	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-29668/2-A

Matrix: Solid

Analysis Batch: 29704

Prep Type: Total/NA

Prep Batch: 29668

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09464		mg/Kg		95	70 - 130	7	35	
Toluene	0.100	0.09323		mg/Kg		93	70 - 130	8	35	
Ethylbenzene	0.100	0.09660		mg/Kg		97	70 - 130	8	35	
m-Xylene & p-Xylene	0.200	0.1923		mg/Kg		96	70 - 130	7	35	
o-Xylene	0.100	0.1056		mg/Kg		106	70 - 130	7	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1.4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-2547-A-21-A MS

Matrix: Solid

Analysis Batch: 29704

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

Prep Batch: 29668

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.08907		mg/Kg		89	70 - 130	
Toluene	<0.00200	U	0.0998	0.08627		mg/Kg		86	70 - 130	

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Job ID: 890-2507-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

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

Lab Sample ID: 890-2547-A-21-A MS

Matrix: Solid

Analysis Batch: 29704

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 29668

	Sample	Sample	Бріке	IVIS	IVIS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Ethylbenzene	<0.00200	U	0.0998	0.09019		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1790		mg/Kg		90	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09784		mg/Kg		98	70 - 130

MS MS

Surrogate	%Recovery Quali	ifier Limits
4-Bromofluorobenzene (Surr)	101	70 - 130
1,4-Difluorobenzene (Surr)	98	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29668

Matrix: Solid

Lab Sample ID: 890-2547-A-21-B MSD

Analysis Batch: 29704

Sample Sample Spike MSD MSD RPD Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit %Rec 0.0994 Benzene <0.00200 U 0.08773 mg/Kg 88 70 - 130 2 35 Toluene <0.00200 U 0.0994 0.08563 86 70 - 130 35 mg/Kg Ethylbenzene <0.00200 U 0.0994 0.08825 mg/Kg 89 70 - 130 2 35 <0.00401 U 0.199 0.1751 88 70 - 130 2 35 m-Xylene & p-Xylene mg/Kg 0.0994 o-Xylene <0.00200 U 0.09619 70 - 130 2 mg/Kg

MSD MSD

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

Lab Sample ID: MB 880-29669/5-A

Matrix: Solid

Analysis Batch: 29700

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29669

MB	M
MB	ı

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000400	U	0.000400		mg/Kg		07/13/22 13:52	07/14/22 11:30	1
Toluene	<0.000400	U	0.000400		mg/Kg		07/13/22 13:52	07/14/22 11:30	1
Ethylbenzene	<0.000400	U	0.000400		mg/Kg		07/13/22 13:52	07/14/22 11:30	1
m-Xylene & p-Xylene	<0.000800	U	0.000800		mg/Kg		07/13/22 13:52	07/14/22 11:30	1
o-Xylene	<0.000400	U	0.000400		mg/Kg		07/13/22 13:52	07/14/22 11:30	1
Xylenes, Total	<0.000800	U	0.000800		mg/Kg		07/13/22 13:52	07/14/22 11:30	1

MB MB

Surrogate	%Recovery Q	Qualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95	70 - 130	07/13/22 13:52	07/14/22 11:30	1
1,4-Difluorobenzene (Surr)	77	70 - 130	07/13/22 13:52	07/14/22 11:30	1

Lab Sample ID: LCS 880-29669/1-A

Matrix: Solid

Analysis Batch: 29700

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29669

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.100	0.08017		mg/Kg		80	70 - 130
Toluene	0.100	0.09066		mg/Kg		91	70 - 130
Ethylbenzene	0.100	0.09604		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1957		mg/Kg		98	70 - 130

 Client: Ensolum
 Job ID: 890-2507-1

 Project/Site: RDU 60
 SDG: 03A1987040

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

Lab Sample ID: LCS 880-29669/1-A

Matrix: Solid

Analysis Batch: 29700

Spike LCS LCS

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

Prep Batch: 29669

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
o-Xylene	0.100	0.1016		mg/Kg		102	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: LCSD 880-29669/2-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 29700 Prep Batch: 29669

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08199		mg/Kg		82	70 - 130	2	35
Toluene	0.100	0.09295		mg/Kg		93	70 - 130	2	35
Ethylbenzene	0.100	0.1000		mg/Kg		100	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2038		mg/Kg		102	70 - 130	4	35
o-Xylene	0.100	0.1057		mg/Kg		106	70 - 130	4	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

82

Lab Sample ID: 890-2547-A-31-F MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 29700 Prep Batch: 29669

	Sample	Sample	Бріке	IVIS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.08999		mg/Kg		90	70 - 130	
Toluene	<0.00201	U	0.100	0.09472		mg/Kg		95	70 - 130	
Ethylbenzene	<0.00201	U	0.100	0.09481		mg/Kg		95	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1929		mg/Kg		96	70 - 130	
o-Xylene	<0.00201	U	0.100	0.1003		mg/Kg		100	70 - 130	

m-Aylene & p-Aylene	<0.00402	U	0.200	0.1929	mg/kg	90	10 - 130
o-Xylene	<0.00201	U	0.100	0.1003	mg/Kg	100	70 - 130
	MS	MS					
Surrogate	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene (Surr)	132	S1+	70 _ 130				

70 - 130

Lab Sample ID: 890-2547-A-31-G MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 29700 Prep Batch: 29669

, and the second	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	0.09020		mg/Kg		91	70 - 130	0	35
Toluene	<0.00201	U	0.0990	0.09342		mg/Kg		94	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0990	0.09341		mg/Kg		94	70 - 130	1	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1875		mg/Kg		95	70 - 130	3	35
o-Xylene	<0.00201	U	0.0990	0.09750		mg/Kg		98	70 - 130	3	35

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1,4-Difluorobenzene (Surr)

Client: Ensolum Job ID: 890-2507-1 Project/Site: RDU 60 SDG: 03A1987040

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

Lab Sample ID: 890-2547-A-31-G MSD

Matrix: Solid

Analysis Batch: 29700

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29669

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 123 70 - 130 1,4-Difluorobenzene (Surr) 84 70 - 130

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

Lab Sample ID: MB 880-29183/1-A

Matrix: Solid

Analysis Batch: 29167

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29183

MSD MSD

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/07/22 09:35	07/07/22 10:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/07/22 09:35	07/07/22 10:03	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/07/22 09:35	07/07/22 10:03	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	07/07/22 09:35	07/07/22 10:03	1
o-Terphenyl	128		70 - 130	07/07/22 09:35	07/07/22 10:03	1

Lab Sample ID: LCS 880-29183/2-A

Matrix: Solid

Analysis Batch: 29167

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

Prep Batch: 29183

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1136		mg/Kg		114	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1143		mg/Kg		114	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	124		70 - 130
o-Terphenyl	136	S1+	70 - 130

Lab Sample ID: LCSD 880-29183/3-A

Matrix: Solid

Analysis Batch: 29167

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29183

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1093		mg/Kg		109	70 - 130	4	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1022		mg/Kg		102	70 - 130	11	20
C10-C28)									

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	109		70 - 130

Job ID: 890-2507-1 Client: Ensolum Project/Site: RDU 60 SDG: 03A1987040

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

Lab Sample ID: 890-2507-1 MS

Matrix: Solid Analysis Batch: 29167 **Client Sample ID: PH03** Prep Type: Total/NA

Prep Batch: 29183

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U F1	997	1311	F1	mg/Kg		132	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U	997	1006		mg/Kg		101	70 - 130	
C10-C28)										

MS MS %Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 115 o-Terphenyl 115 70 - 130

Lab Sample ID: 890-2507-1 MSD **Client Sample ID: PH03**

Matrix: Solid

Analysis Batch: 29167

Prep Type: Total/NA

Prep Batch: 29183

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	996	1172		mg/Kg		118	70 - 130	11	20
Diesel Range Organics (Over	<50.0	U	996	1003		mg/Kg		101	70 - 130	0	20

C10-C28)

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29204/1-A

Matrix: Solid

Analysis Batch: 29449

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

Analyte Result Qualifier RL MDL Unit Dil Fac Prepared Analyzed Chloride <5.00 U 5.00 07/12/22 07:28 mg/Kg

Lab Sample ID: LCS 880-29204/2-A **Matrix: Solid**

MB MB

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analysis Batch: 29449

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 264.5 106 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-29204/3-A

Matrix: Solid							Prep	Type: S	oluble
Analysis Batch: 29449									
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	263.0		mg/Kg		105	90 - 110	1	20

QC Sample Results

 Client: Ensolum
 Job ID: 890-2507-1

 Project/Site: RDU 60
 SDG: 03A1987040

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2507-2 MS

Matrix: Solid

Client Sample ID: PH03

Prep Type: Soluble

Analysis Batch: 29449

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	37.2		248	297.4		mg/Kg		105	90 - 110	

Lab Sample ID: 890-2507-2 MSD

Matrix: Solid

Client Sample ID: PH03

Prep Type: Soluble

Analysis Batch: 29449

Sample Sample Spike MSD MSD %Rec RPD RPD Limit Analyte Result Qualifier Added Result Qualifier Limits Unit %Rec Chloride 37.2 248 297.1 mg/Kg 105 90 - 110 0

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QC Association Summary

Client: Ensolum Job ID: 890-2507-1 Project/Site: RDU 60 SDG: 03A1987040

GC VOA

Prep Batch: 29668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2507-1	PH03	Total/NA	Solid	5035	
890-2507-2	PH03	Total/NA	Solid	5035	
890-2507-3	PH04	Total/NA	Solid	5035	
890-2507-4	PH04	Total/NA	Solid	5035	
890-2507-5	PH05	Total/NA	Solid	5035	
MB 880-29668/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29668/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29668/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2547-A-21-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2547-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 29669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2507-6	PH05	Total/NA	Solid	5035	
890-2507-7	PH06	Total/NA	Solid	5035	
890-2507-8	PH06	Total/NA	Solid	5035	
MB 880-29669/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29669/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29669/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2547-A-31-F MS	Matrix Spike	Total/NA	Solid	5035	
890-2547-A-31-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 29700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2507-6	PH05	Total/NA	Solid	8021B	29669
890-2507-7	PH06	Total/NA	Solid	8021B	29669
890-2507-8	PH06	Total/NA	Solid	8021B	29669
MB 880-29669/5-A	Method Blank	Total/NA	Solid	8021B	29669
LCS 880-29669/1-A	Lab Control Sample	Total/NA	Solid	8021B	29669
LCSD 880-29669/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29669
890-2547-A-31-F MS	Matrix Spike	Total/NA	Solid	8021B	29669
890-2547-A-31-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	29669

Analysis Batch: 29704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2507-1	PH03	Total/NA	Solid	8021B	29668
890-2507-2	PH03	Total/NA	Solid	8021B	29668
890-2507-3	PH04	Total/NA	Solid	8021B	29668
890-2507-4	PH04	Total/NA	Solid	8021B	29668
890-2507-5	PH05	Total/NA	Solid	8021B	29668
MB 880-29668/5-A	Method Blank	Total/NA	Solid	8021B	29668
LCS 880-29668/1-A	Lab Control Sample	Total/NA	Solid	8021B	29668
LCSD 880-29668/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29668
890-2547-A-21-A MS	Matrix Spike	Total/NA	Solid	8021B	29668
890-2547-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	29668

Analysis Batch: 29777

Lab Sample 890-2507-1	ID Client Sample ID PH03	Prep Type Total/NA	Matrix Solid	Method Total BTEX	Prep Batch
890-2507-2	PH03	Total/NA	Solid	Total BTEX	
890-2507-3	PH04	Total/NA	Solid	Total BTEX	

QC Association Summary

 Client: Ensolum
 Job ID: 890-2507-1

 Project/Site: RDU 60
 SDG: 03A1987040

GC VOA (Continued)

Analysis Batch: 29777 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2507-4	PH04	Total/NA	Solid	Total BTEX	
890-2507-5	PH05	Total/NA	Solid	Total BTEX	
890-2507-6	PH05	Total/NA	Solid	Total BTEX	
890-2507-7	PH06	Total/NA	Solid	Total BTEX	
890-2507-8	PH06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 29167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2507-1	PH03	Total/NA	Solid	8015B NM	29183
890-2507-2	PH03	Total/NA	Solid	8015B NM	29183
890-2507-3	PH04	Total/NA	Solid	8015B NM	29183
890-2507-4	PH04	Total/NA	Solid	8015B NM	29183
890-2507-5	PH05	Total/NA	Solid	8015B NM	29183
890-2507-6	PH05	Total/NA	Solid	8015B NM	29183
890-2507-8	PH06	Total/NA	Solid	8015B NM	29183
MB 880-29183/1-A	Method Blank	Total/NA	Solid	8015B NM	29183
LCS 880-29183/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29183
LCSD 880-29183/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29183
890-2507-1 MS	PH03	Total/NA	Solid	8015B NM	29183
890-2507-1 MSD	PH03	Total/NA	Solid	8015B NM	29183

Prep Batch: 29183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-2507-1	PH03	Total/NA	Solid	8015NM Prep	
890-2507-2	PH03	Total/NA	Solid	8015NM Prep	
890-2507-3	PH04	Total/NA	Solid	8015NM Prep	
890-2507-4	PH04	Total/NA	Solid	8015NM Prep	
890-2507-5	PH05	Total/NA	Solid	8015NM Prep	
890-2507-6	PH05	Total/NA	Solid	8015NM Prep	
890-2507-7	PH06	Total/NA	Solid	8015NM Prep	
890-2507-8	PH06	Total/NA	Solid	8015NM Prep	
MB 880-29183/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29183/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29183/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2507-1 MS	PH03	Total/NA	Solid	8015NM Prep	
890-2507-1 MSD	PH03	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2507-1	PH03	Total/NA	Solid	8015 NM	
890-2507-2	PH03	Total/NA	Solid	8015 NM	
890-2507-3	PH04	Total/NA	Solid	8015 NM	
890-2507-4	PH04	Total/NA	Solid	8015 NM	
890-2507-5	PH05	Total/NA	Solid	8015 NM	
890-2507-6	PH05	Total/NA	Solid	8015 NM	
890-2507-7	PH06	Total/NA	Solid	8015 NM	
890-2507-8	PH06	Total/NA	Solid	8015 NM	

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QC Association Summary

 Client: Ensolum
 Job ID: 890-2507-1

 Project/Site: RDU 60
 SDG: 03A1987040

GC Semi VOA

Analysis Batch: 29692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2507-7	PH06	Total/NA	Solid	8015B NM	29183

HPLC/IC

Leach Batch: 29204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2507-1	PH03	Soluble	Solid	DI Leach	
890-2507-2	PH03	Soluble	Solid	DI Leach	
890-2507-3	PH04	Soluble	Solid	DI Leach	
890-2507-4	PH04	Soluble	Solid	DI Leach	
890-2507-5	PH05	Soluble	Solid	DI Leach	
890-2507-6	PH05	Soluble	Solid	DI Leach	
890-2507-7	PH06	Soluble	Solid	DI Leach	
890-2507-8	PH06	Soluble	Solid	DI Leach	
MB 880-29204/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29204/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29204/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2507-2 MS	PH03	Soluble	Solid	DI Leach	
890-2507-2 MSD	PH03	Soluble	Solid	DI Leach	

Analysis Batch: 29449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2507-1	PH03	Soluble	Solid	300.0	29204
890-2507-2	PH03	Soluble	Solid	300.0	29204
890-2507-3	PH04	Soluble	Solid	300.0	29204
890-2507-4	PH04	Soluble	Solid	300.0	29204
890-2507-5	PH05	Soluble	Solid	300.0	29204
890-2507-6	PH05	Soluble	Solid	300.0	29204
890-2507-7	PH06	Soluble	Solid	300.0	29204
890-2507-8	PH06	Soluble	Solid	300.0	29204
MB 880-29204/1-A	Method Blank	Soluble	Solid	300.0	29204
LCS 880-29204/2-A	Lab Control Sample	Soluble	Solid	300.0	29204
LCSD 880-29204/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29204
890-2507-2 MS	PH03	Soluble	Solid	300.0	29204
890-2507-2 MSD	PH03	Soluble	Solid	300.0	29204

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Client: Ensolum Job ID: 890-2507-1 Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: PH03 Lab Sample ID: 890-2507-1

Date Collected: 07/05/22 13:28 **Matrix: Solid** Date Received: 07/06/22 09:09

	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	29668	07/13/22 13:45	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29704	07/14/22 18:35	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29777	07/14/22 19:40	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29286	07/08/22 11:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29183	07/07/22 09:35	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29167	07/07/22 11:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		5			29449	07/12/22 10:32	CH	XEN MID

Client Sample ID: PH03 Lab Sample ID: 890-2507-2 Matrix: Solid

Date Collected: 07/05/22 13:30 Date Received: 07/06/22 09:09

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 29668 07/13/22 13:45 Total/NA 4.98 g 5 mL MR XEN MID Total/NA 8021B 5 mL 07/14/22 18:56 XEN MID Analysis 1 5 mL 29704 MR Total/NA Total BTEX 29777 07/14/22 19:40 XEN MID Analysis 1 A.I Total/NA Analysis 8015 NM 29286 07/08/22 11:23 XEN MID Total/NA 29183 XEN MID Prep 8015NM Prep 10.04 g 07/07/22 09:35 AM 10 mL Total/NA Analysis 8015B NM 29167 07/07/22 12:49 AJ XEN MID Soluble SMC XEN MID Leach DI Leach 5.05 g 50 mL 29204 07/07/22 12:33 Soluble Analysis 300.0 1 29449 07/12/22 10:41 CH XEN MID

Lab Sample ID: 890-2507-3 Client Sample ID: PH04 Date Collected: 07/05/22 13:40 **Matrix: Solid**

Date Received: 07/06/22 09:09

	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	29668	07/13/22 13:45	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29704	07/14/22 19:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29777	07/14/22 19:40	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29286	07/08/22 11:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	29183	07/07/22 09:35	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29167	07/07/22 13:11	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		5			29449	07/12/22 11:09	CH	XEN MID

Lab Sample ID: 890-2507-4 **Client Sample ID: PH04**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	29668	07/13/22 13:45	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29704	07/14/22 19:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29777	07/14/22 19:40	AJ	XEN MID

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Matrix: Solid Date Collected: 07/05/22 13:45 Date Received: 07/06/22 09:09

Released to Imaging: 12/9/2022 2:17:21 PM

Total/NA

Soluble

Soluble

Analysis

Analysis

Leach

8015B NM

DI Leach

300.0

Client: Ensolum Job ID: 890-2507-1 Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: PH04 Lab Sample ID: 890-2507-4 Date Collected: 07/05/22 13:45

Matrix: Solid Date Received: 07/06/22 09:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			29286	07/08/22 11:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	29183	07/07/22 09:35	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29167	07/07/22 13:32	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		1			29449	07/12/22 11:18	CH	XEN MID

Client Sample ID: PH05 Lab Sample ID: 890-2507-5

Date Collected: 07/05/22 14:00 **Matrix: Solid** Date Received: 07/06/22 09:09

Batch Batch Dil Initial Final Batch Prepared Method Prep Type Amount Amount Number or Analyzed Type Run Factor Analyst Lab Total/NA 5035 29668 Prep 5.01 g 5 mL 07/13/22 13:45 MR XEN MID Total/NA Analysis 8021B 5 mL 5 mL 29704 07/14/22 19:57 MR XEN MID 1 Total/NA Total BTEX XEN MID Analysis 1 29777 07/14/22 19:40 AJ Total/NA Analysis 8015 NM 29286 07/08/22 11:23 XEN MID 1 ΑJ XEN MID Total/NA Prep 8015NM Prep 10.03 g 10 mL 29183 07/07/22 09:35 AM

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Client Sample ID: PH05 Lab Sample ID: 890-2507-6

Date Collected: 07/05/22 14:05 **Matrix: Solid** Date Received: 07/06/22 09:09

5.01 g

29167

29204

29449

50 mL

07/07/22 13:54

07/07/22 12:33

07/12/22 11:46

AJ

SMC

СН

	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	29669	07/13/22 13:52	MR	XEN MID
Total/NA	Analysis	8021B		1			29700	07/14/22 17:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29777	07/14/22 19:40	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29286	07/08/22 11:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29183	07/07/22 09:35	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29167	07/07/22 14:16	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		1			29449	07/12/22 11:55	CH	XEN MID

Client Sample ID: PH06 Lab Sample ID: 890-2507-7

Date Collected: 07/05/22 14:30 **Matrix: Solid** Date Received: 07/06/22 09:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	29669	07/13/22 13:52	MR	XEN MID
Total/NA	Analysis	8021B		1			29700	07/14/22 18:08	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29777	07/14/22 19:40	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29286	07/08/22 11:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29183	07/07/22 09:35	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29692	07/15/22 00:49	SM	XEN MID

XEN MID

XEN MID

XEN MID

Client: Ensolum Job ID: 890-2507-1 Project/Site: RDU 60 SDG: 03A1987040

Client Sample ID: PH06 Lab Sample ID: 890-2507-7 Date Collected: 07/05/22 14:30

Matrix: Solid

Date Received: 07/06/22 09:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		5			29449	07/12/22 12:04	CH	XEN MID

Client Sample ID: PH06 Lab Sample ID: 890-2507-8

Matrix: Solid

Date Collected: 07/05/22 14:35 Date Received: 07/06/22 09:09

	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	29669	07/13/22 13:52	MR	XEN MID
Total/NA	Analysis	8021B		1			29700	07/14/22 18:34	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29777	07/14/22 19:40	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29286	07/08/22 11:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	29183	07/07/22 09:35	AM	XEN MID
Total/NA	Analysis	8015B NM		1			29167	07/07/22 14:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29204	07/07/22 12:33	SMC	XEN MID
Soluble	Analysis	300.0		5			29449	07/12/22 12:14	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-2507-1

 Project/Site: RDU 60
 SDG: 03A1987040

Laboratory: Eurofins Midland

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

uthority		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 datherity. 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

 Client: Ensolum
 Job ID: 890-2507-1

 Project/Site: RDU 60
 SDG: 03A1987040

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

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Sample Summary

 Client: Ensolum
 Job ID: 890-2507-1

 Project/Site: RDU 60
 SDG: 03A1987040

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2507-1	PH03	Solid	07/05/22 13:28	07/06/22 09:09	0.5'
890-2507-2	PH03	Solid	07/05/22 13:30	07/06/22 09:09	1'
890-2507-3	PH04	Solid	07/05/22 13:40	07/06/22 09:09	0.5'
890-2507-4	PH04	Solid	07/05/22 13:45	07/06/22 09:09	1'
890-2507-5	PH05	Solid	07/05/22 14:00	07/06/22 09:09	0.5'
890-2507-6	PH05	Solid	07/05/22 14:05	07/06/22 09:09	1'
890-2507-7	PH06	Solid	07/05/22 14:30	07/06/22 09:09	0.5'
890-2507-8	PH06	Solid	07/05/22 14:35	07/06/22 09:09	1'

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eurofins

Environment Testing Xenco

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Chain of Custody

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

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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time		by: (Signature)	N Received	(Signature)	Relinguished by: (Signature)
	rol rol regoliated.	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xencto, its amiliates and subcontractors. It assigns samatra terms and conductors of service. Eurofins Xencto 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 Xencto. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xencto, but not analyzed. These terms will be enforced unless previously negotiated	ns Xenco, its amiliates and s es incurred by the client if s rofins Xenco, but not analy	om client company to Euror ility for any losses or expens ach sample submitted to Eu	and a charge of \$5 for o	of samples constitutes a t of samples and shall no applied to each project	ument and relinquishment III be tiable only for the cost m charge of \$85.00 will be	rtice: Signature of this doct service. Eurofins Xenco will Eurofins Xenco. A minimu
//4/1	U Hg: 1631 / 245.1 / /4/0 / /4/1	TCLP/SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag II U	Sb As Ba Be Cd Cr C	6010 : 8RCRA S	TCLP / SPLI	e analyzed	Circle Method(s) and Metal(s) to be analyzed	ircle Method(s) a
U V Zn	K Se		Al Sb As Ba Be B Cd Ca	13PPM Texas 11 Al Sb	8RCRA 13PPM		0 200,8 / 6020:	Total 200.7 / 6010
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napp7216732906	na		-		1.330			0
incident number	inci		X X X	0.5' 6 1	11328 6	5 71512	0,5	PHO3
Sample Comments	S		tpl bte chi	Depth Grab/ # of Comp Cont	Time C	Matrix Sampled		Sample Identification
NaOH+Ascorbic Acid: SAPC		or o	X	0	Corrected Temperature:	Corrected *		Total Containers:
Zn Acetate+NaOH: Zn		890-2507 Chain of Custod	e po	2	Temperature Reading:	Temperatu	Yes No	Sample Custody Seals:
Na ₂ S ₂ O ₃ ; NaSO ₃	Na ₂ S ₂ C		m	Pa	Factor:	N/A Correction Factor:	Yes No	Cooler Custody Seals:
NaHSO 4: NABIS	NaHSO		etin	LOC WM	1	Thermometer ID:	Het: Yes No	Samples Received Intact:
:HP	H ₃ PO ₄ : HP			No Neter	Wet Ice:	nk: Yes No	Temp Blank:	SAMPLE RECEIPT
H ₂ NaOH: Na	H ₂ S0 ₄ :H ₂	-	200		the lab, if received by 4:30pm		27	PO #:
C HNO 3: HN	HCL: HC		B	received by	ñ		14 pd 127	Sampler's Name:
ool MeOH: Me	Cool: Cool			5 day tat		Comba Mpue Date:	Eddy C	Project Location:
NO DI Water: H ₂ O	None: NO		0	Rush Pres.	Routine	JONO	0381987040	Project Number:
Preservative Codes	Pı	ANALYSIS REQUEST		ound	Turn Around		०० ५००	Project Name:
Other:	ables: EDD ADaPT	epsolum (un Deliverables:	-	Thenone	Email:	2329	1	Phone:
TRRP Level IV	Reporting: Level III Level III PST/UST	arisbad NM 8220 Report	Carlsbad	City, State ZIP:		188 V	Carlyas	City, State ZIP:
]		70	5315 Buena Vilha	Address:	HWW A	Parks	3172 Nati	Address:
RRC Superfund	m: UST/PST PRP Brownfields	ergin Program:	Devan Energy	Company Name:			Ensolum	Company Name:
CS .	Work Order Comments		Jim Raley	Bill to: (if different)		Hemonder	1658ph	Project Manager:

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2507-1

SDG Number: 03A1987040

Login Number: 2507 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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2507-1

SDG Number: 03A1987040

Login Number: 2507 **List Source: Eurofins Midland** List Number: 2

List Creation: 07/07/22 10:57 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").



APPENDIX G

Email Correspondence

From: <u>Joseph Hernandez</u>

To: ocd.enviro@state.nm.us; "CFO Spill, BLM NM"

Cc: <u>Devon-Team</u>; <u>Raley</u>, <u>Jim</u>

Subject: WPX Site Sampling Activity Update (7/5-7/9/22)

Date: Friday, July 1, 2022 4:02:00 PM

Attachments: image001.png

image002.png image003.png image004.png

Good afternoon,

WPX anticipates conducting final confirmation soil sampling activities at the following sites between July 5 through July 9, 2022:

Site: RDX Federal 21 #044

API: 30-015-41193

Incident Number: nAPP2115533694

Site: RDX Federal 28 #011

API: 30-015-42109

Incident Number: nAPP2215732821

Site: Ross Draw Unit #060

API: 30-015-41979

Incident Number: nAPP2216732906



Joseph Hernandez Senior Geologist

281-702-2329 Ensolum, LLC

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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 142755

CONDITIONS

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	142755
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created		Condition Date
rhaml	We have received your closure report and final C-141 for Incident #NAPP2216732906 ROSS DRAW UNIT #060, thank you. This closure is approved.	12/9/2022