

Incident ID:	NRM2014147987
District RP:	
Facility ID	
Application ID	

Remediation Plan


Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 1/24/2023
email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: Jocelyn Harimon Date: 01/24/2023

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☒ Deferral Approved

Signature:  Date: 5/23/2023

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

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2014147987
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Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC.	OGRID: 246289
Contact Name: Lynda Laumbach	Contact Telephone: (575) 725-1647
Contact email: Lynda.Laumbach@wpxenergy.com	Incident # (assigned by OCD)
Contact mailing address: 5315 Buena Vista Drive, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.09264 Longitude -103.94825
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: North Brushy Draw Federal 35 #002H	Site Type: Production Facility
Date Release Discovered: 05/14/2020	API# (if applicable): 30-015-40006

Unit Letter	Section	Township	Range	County
A	35	25S	29E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls): 30	Volume Recovered (bbls): 10
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

At 16:00 hours, water transfer polyline failed outside of containment and released produced water onto the northeast side of the pad.

$$bbl\ estimate = \frac{saturated\ soil\ volume\ (ft^3)}{4.21(\frac{ft^3}{bbl\ equivalent})} * estimated\ soil\ porosity(\%)$$

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Quantity was greater than 25bbbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notification was given by email on 05/15/2020 to Mike Bratcher, Jim Griswold, Christina Venegas, and Robert Hamlet.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Lynda Laumbach</u>	Title: <u>Environmental Specialist</u>
Signature: <u></u>	Date: <u>05/19/2020</u>
email: <u>Lynda.Laumbach@wpenergy.com</u>	Telephone: <u>(575)725-1647</u>
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>5/20/2020</u>

Incident ID:	NRM2014147987
District RP	
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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody


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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID:	NRM2014147987
District RP	
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Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 1/24/2023
email: jim.raley@dv.com Telephone: 575-689-7597

OCD Only

Received by: Jocelyn Harimon Date: 01/25/2023

Incident ID:	NRM2014147987
District RP:	
Facility ID	
Application ID	

Remediation Plan


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- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

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Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 1/24/2023
email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: Jocelyn Harimon Date: 01/24/2023

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____



DEFERRAL REQUEST REPORT

Site Location:

**North Brushy Draw Federal 35 #002H
North Brushy Draw Federal 35 #009H**

**Eddy County, New Mexico
Incident Numbers
NRM2014147987
NRM2020657799**

January 19, 2023
Ensolum Project No.
03A1987005
03A1987012

Prepared for:

**WPX Energy Permian, LLC
5315 Buena Vista Dr.
Carlsbad, NM 88220
Attention: Jim Raley**

Prepared by:

Joseph S. Hernandez
Senior Geologist

Ashley Ager, M.S., P.G.
Principal

TABLE OF CONTENTS

1.0 INTRODUCTION.....	2
1.1 Site Description & Background	2
1.2 Site Characterization	2
2.0 REMEDIATION ACTIVITIES.....	2
2.1 Excavation Activities.....	2-3
2.2 Delineation Activities	3
2.3 Waste Handling.....	3-4
3.0 SOIL SAMPLING RESULTS.....	4
4.0 FINDINGS AND CONCLUSIONS	4
5.0 DEFFERAL REQUEST	4-5

LIST OF APPENDICES

Appendix A:	Figure 1 – Site Map
	Figure 2 – Excavation Soil Sample Locations
	Figure 3 – Delineation Soil Sample Locations
Appendix B:	Photographic Documentation
Appendix C:	Lithologic Soil Sampling Logs
Appendix D:	Tables
Appendix E:	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix F:	Correspondence Emails

1.0 INTRODUCTION

Ensolum, LLC (Ensolum), on behalf of WPX Permian, LLC (WPX), has prepared this Deferral Request Report (DRR) to document remediation and soil sampling activities completed at the North Brushy Draw Federal 35 #002H and North Brushy Draw Federal 35 #009H (hereinafter referred to as the "Site") in Unit A, Section 35, Township 25 South, Range 29 East, in Eddy County, New Mexico (**Figure 1 in Appendix A**). The corrective actions have been completed in accordance with a Remediation Work Plan (RWP) authored by WPX, which was approved by the New Mexico Oil and Conservation Division (NMOCD) on April 6, 2022. All previous remediation activities and soil sample analytical results can be referenced in the original RWP.

1.1 Site Description & Background

The Site is located within Eddy County, New Mexico (32.09264°N, 103.94825°W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land (**Figure 1 in Appendix A**).

As previously documented in the RWP, the release of produced water from Incident Number NRM2020657799 overlapped the release of produced water associated with Incident Number NRM2014147987. Corrective actions for these releases were addressed concurrently and are described below.

1.2 Site Characterization

Based on the results of the Site Characterization documented in the RWP, specifically the 1 percent (%) Flood Zone designation and potential watercourse, the following NMOCD Table 1 Closure Criteria (Closure Criteria) were applied:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbon (TPH): 100 mg/kg
- Chloride: 600 mg/kg

2.0 REMEDIATION ACTIVITIES

The primary objectives of Ensolum's scope of services were to document that response actions performed at the Site were completed in accordance with the applicable NMOCD regulatory guidelines and to document those concentrations of constituents of concern (COCs) in soil remaining on-Site.

2.1 Excavation Activities

The RWP presented results from original samples collected to delineate lateral impacts but provided an incomplete vertical extent of the releases. Between April 22, 2022 and May 19, 2022, excavation activities were conducted by Ensolum to remove impacted soil within the subject releases and/or other areas identified during previous delineation activities via heavy equipment. Excavation activities were driven by referencing delineation laboratory analytical results documented in the RWP and by field screening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector and chloride using Hach® chloride QuanTab® test strips.

Following removal of impacted soil, Ensolum collected composite soil samples at a sampling frequency of 200 square feet from the sidewalls and floor of the excavations 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.

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 and chilled under strict chain-of-custody procedures, to Eurofins LLC (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0.

NRM2014147987

A total of sixteen composite sidewall soil samples (SW01 through SW16) and twenty-six composite floor soil samples (FS01 through FS26) were collected from varying depth ranges inside the final excavation(s). Excluding chloride results for composite sidewall soil sample SW02, SW04 and SW15 all COCs for final composite soil samples were within the applicable Closure Criteria designated for the Site. Sidewall soil associated with SW04 and SW15 was removed and replaced with SW16.

NRM2020657799

Ensolum recollected two composite sidewall soil samples (SW01 and SW02) and six composite floor soil samples (FS01 through FS06) from varying depth ranges inside the final excavation. Shallow depths associated with FS04, FS05 and FS06 contained soil from the floors and sidewalls. The area represented by BS20-04 at 2 feet in the RWP was advanced to 4 feet to remove chloride exceedances (FS02). All COCs for final composite soil samples were within the applicable Closure Criteria designated for the Site.

The approximate extent of excavations and excavation soil sample locations is provided on **Figure 2 in Appendix A**. Photographic documentation of remediation activities is included in **Appendix B**.

2.2 Delineation Activities

Between April 26 and 29, 2022, additional delineation activities were conducted by Ensolum to confirm the presence or absence of impacted soil in areas that were not excavated and to identify a lateral delineation area of the lined tank battery containment. Delineation soil samples were collected either in potholes advanced with a backhoe (samples designated PH) or in boreholes advanced with a hand auger (samples designated BH). A total of two soil samples were collected from each delineation soil sample location (PH01, PH02, and BH01): the sample with the highest observed field screening (ranging from 0.5 foot bgs to 1 foot bgs) and the greatest depth (4 feet bgs). The location of the delineation soil samples and previous soil samples collected by WPX are shown in **Figure 3 in Appendix A** for reference. Field screening results and observations for each delineation soil sample collected by Ensolum were recorded on lithologic/soil sampling logs (**Appendix C**). The soil samples were field screened, handled, collected and analyzed as previously described.

2.3 Waste Handling

In addition to the previous documented removal of impacted soil (200 cubic yards), 1,300 cubic yards of impacted soil were excavated under WPX-approved manifests, totaling 1,500 cubic



yards. The excavated impacted soil was transported for disposal to a R360 Environmental Solutions, LLC Facility in accordance with state and federal regulations

3.0 SOIL SAMPLING RESULTS

Excluding chloride results for SW02 associated with Incident Number NRM2014147987, all other COCs associated with final confirmation and delineation soil samples were within the applicable Closure Criteria. All final laboratory analytical soil sample results for the subject releases are summarized in the **Table 1** included in **Appendix D**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix E**. **Appendix F** provides correspondence email notification receipts associated with the release.

4.0 FINDINGS AND CONCLUSIONS

Initial response efforts by WPX included delineation and/or excavation of impacted soils for two reported releases of produced water. Soil laboratory analytical data collected by WPX indicated remediation activities were warranted. The following findings and conclusions regarding the Site are presented:

- Recent collection of PH01, PH02 and BH01 further supports lateral delineation documented in the RWP and absence of elevated COCs as compared to the Site-specific Closure Criteria. Vertical delineation of the release was achieved through confirmation sampling;
- A total of 1,500 cubic yards of impacted soil were excavated and transported for disposal to a R360 Environmental Solutions, LLC Facility in accordance with state and federal regulations;
- NRM2014147987 - Composite sidewall soil sample SW02 exhibited a minimally increased concentration of 1,590 mg/kg chloride. Further lateral advancement of SW02 was limited due to the current Site configuration associated with the lined tank battery containment. All other COCs associated with final composite sidewall and floor samples were within the applicable Closure Criteria; and
- NRM2020657799 - All COCs associated with final composite sidewall and floor samples were within the applicable Closure Criteria.

5.0 DEFERRAL REQUEST

Based on the corrective actions and the data summary documented in the RWP, subsequent remediation activities and final excavation and delineation soil sample results, WPX requests a deferral to leave minimally elevated chloride associated with SW02 (NRM2014147987) until plugging and abandonment of the Site for the following reasons:

- Besides the 1% Flood Zone feature modeled by National Flood Hazard Layer (NFHL) and potential watercourse identified using the United States Fish and Wildlife Service (USFWS) online database, National Wetland Inventory (Wetland Mapper), no other sensitive receptors appear to exist. Depth to groundwater at the Site is estimated to be greater than 100 feet below ground bgs based a soil boring (MW-1) that was drilled by Talon LPE on December 8, 2020, located within 1 mile southwest of the Site.
- Although SW02 contained chloride levels exceeding the Site Closure Criteria (600 mg/kg), the value was relatively low (1,590 mg/kg) within the ground surface to 4 feet bgs;

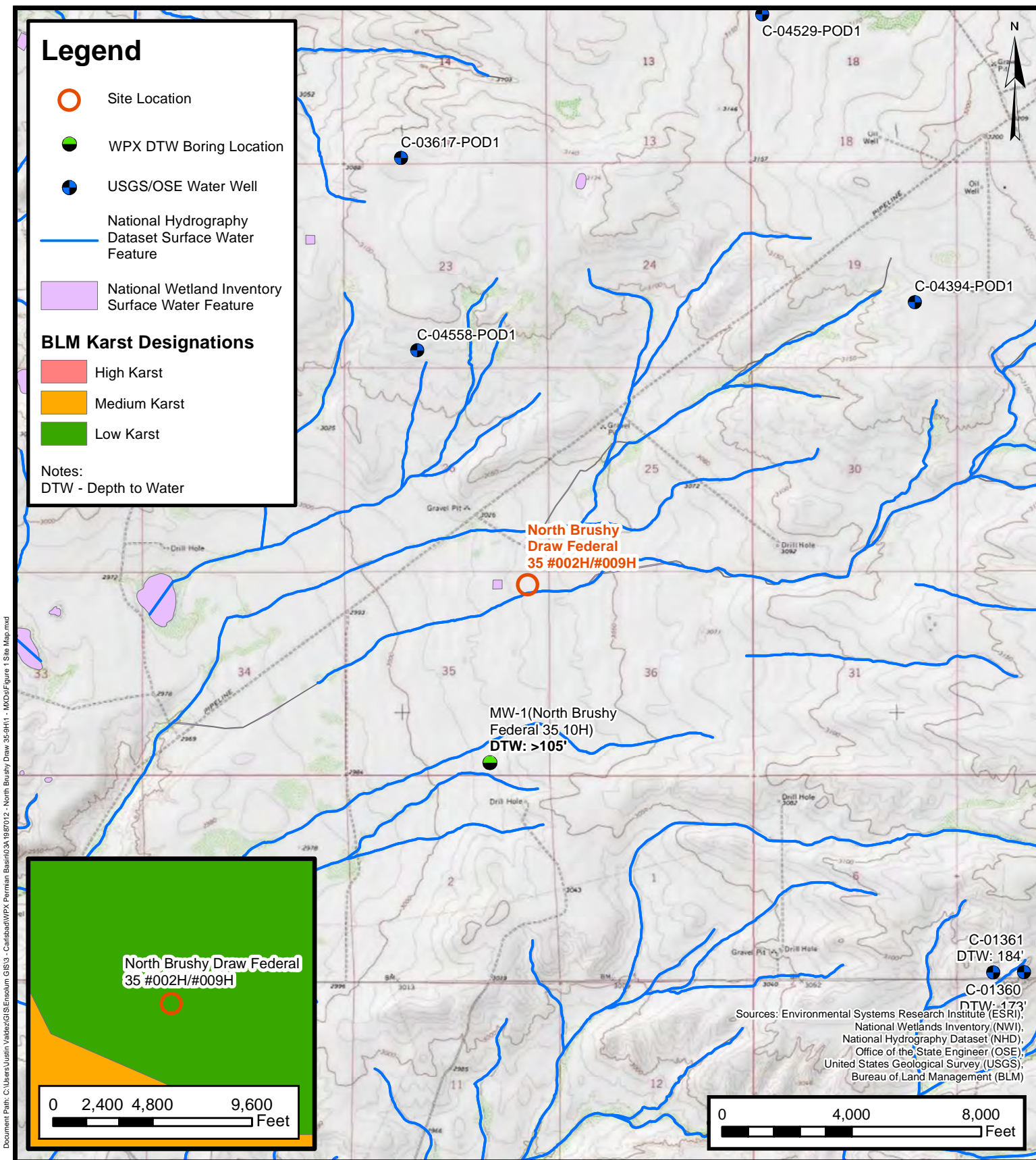
- Based on the existing soil laboratory analytical results for BH01 and the assumption that impacts associated with SW02 do not extend beyond the northern edge of the lined tank battery containment, an estimated 40 cubic yards of residual chloride impacted soil above the Closure Criteria remains at the Site.

WPX believes the data described above meets the recommendations set forth in NMAC 19.15.29.11. Excavation of SW02 is restricted by lined tank battery containment and removal of the containment is likely to weaken the integrity of the liner, which is not designed to be compromised. As such, WPX respectfully requests deferral of a total of approximately 40 cubic yards to leave minimally increased concentrations of chloride (1,590 mg/kg) in place based on the above reasons. WPX believes the corrective actions performed for these releases is equally protective of human health, the environment and groundwater and requests No Further Action for Incident Numbers NRM2014147987 and NRM2020657799 and the Site should be respectfully considered for Deferral by the NMOCD.



APPENDIX A

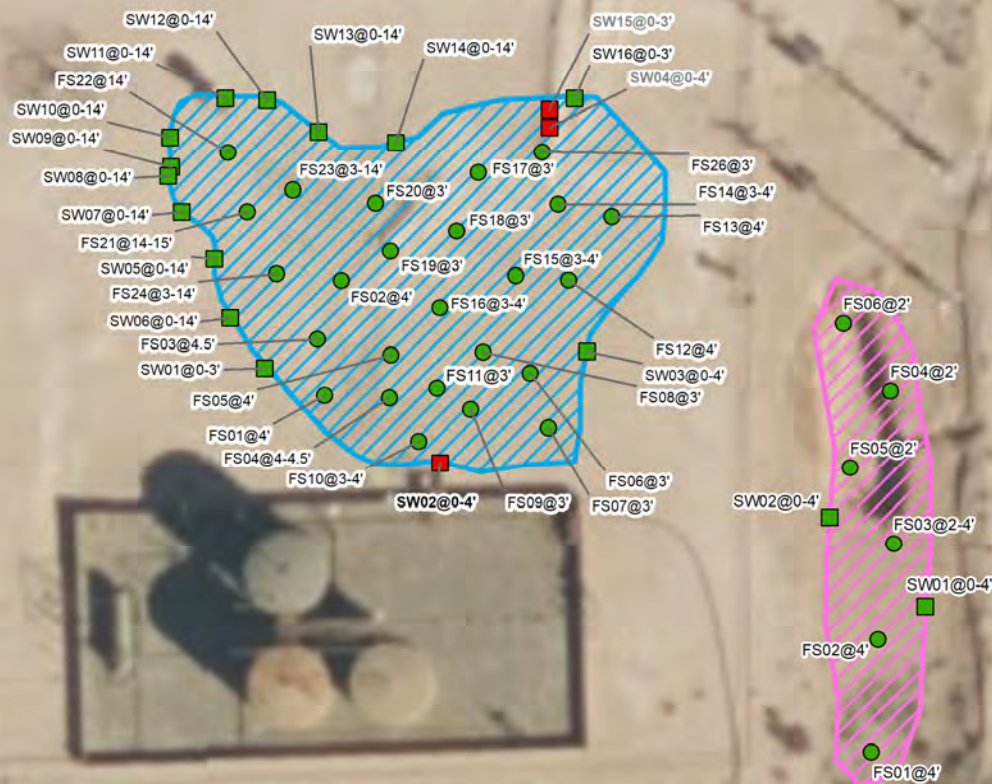
Figures



Legend

- Excavation Floor Sample in Compliance with Closure Criteria
- Excavation Sidewall Sample in Compliance with Closure Criteria
- Excavation Sidewall Sample with Concentrations Exceeding Closure Criteria
- Excavation Extent (NRM2014147987)
- Excavation Extent (NMR2020657799)

Document Path: C:\Users\Justin_Vallero\GIS\Excavation\GIS\3 - North Brushy Draw 35-9H11 - MDO\Figure 3 Excavation Soil Sample Locations.mxd



Notes:
 Soil samples in **bold** indicate soil concentrations exceed the applicable regulatory criteria.
 Soil Samples in grey indicate soil was removed during excavation activities

Sources: Environmental Systems Research Institute (ESRI)



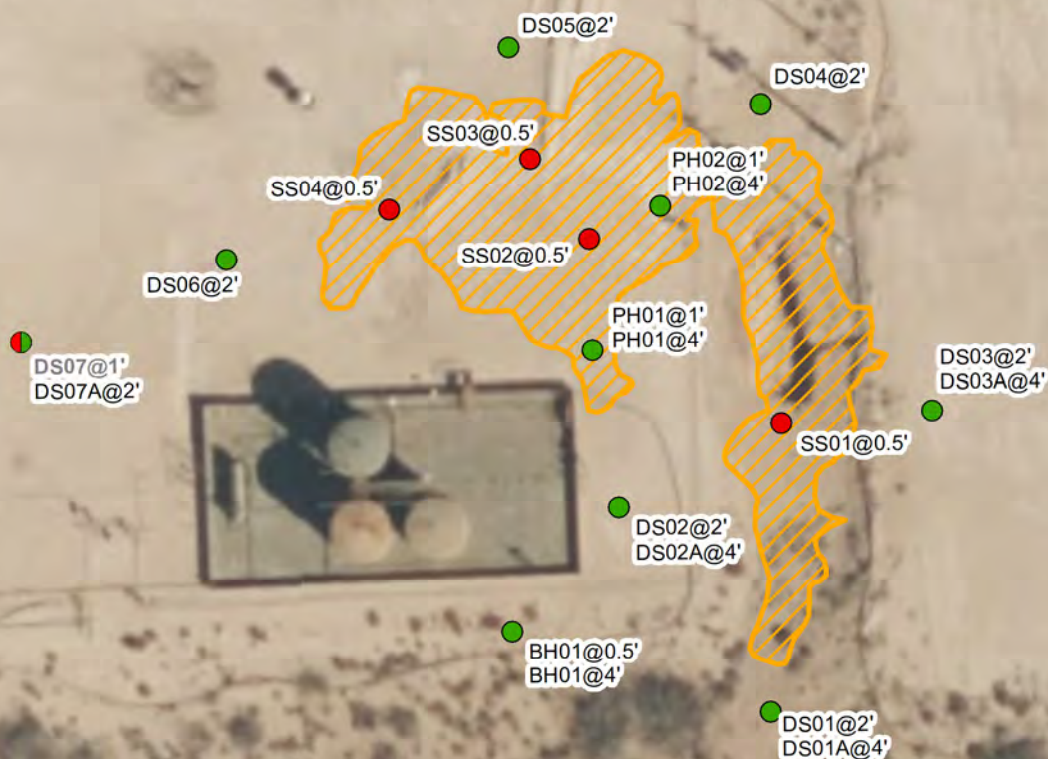
Excavation Soil Sample Locations

WPX Energy Permian, LLC
 North Brushy Draw Federal 35 #002H/#009H
 Unit A, Section 35, Township 25S, Range 29E
 Eddy County, New Mexico

FIGURE
2

Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Delineation Soil Sample with Concentrations Exceeding Closure Criteria
- Release Extent



Notes:
 Soil samples in **bold** indicate
 soil concentrations exceed the applicable
 regulatory criteria.
 Soil Samples in **grey** indicate soil was
 removed during excavation activities

0 50 100
 Feet

Sources: Environmental Systems Research Institute (ESRI)

Soil Sample Locations

WPX Energy Permian, LLC
 North Brushy Draw Federal 35 #002H/#009H
 Unit A, Section 35, Township 25S, Range 29E
 Eddy County, New Mexico

FIGURE
3





APPENDIX B

Photographic Log

**Photographic Log**

WPX Energy Permian, LLC

North Brushy Draw Federal 35 #002H/#009H

Incident Number: NRM2014147987/NRM2020657799



Photograph: 1 Date: 4/26/2022
Description: Site during excavation activities.
View: Northeast



Photograph: 2 Date: 4/26/2022
Description: Site during excavation activities.
View: Southwest



Photograph: 3 Date: 4/27/2022
Description: Site during excavation activities.
View: Southwest



Photograph: 4 Date: 4/27/2022
Description: Site during excavation activities.
View: Southwest

**Photographic Log**

WPX Energy Permian, LLC

North Brushy Draw Federal 35 #002H/#009H

Incident Number: NRM2014147987/NRM2020657799



Photograph: 5 Date: 4/29/2022
Description: Delineation activities, near BH01.
View: Northeast



Photograph: 6 Date: 8/4/2022
Description: Backfill completed.
View: Southwest



Photograph: 7 Date: 8/4/2022
Description: Backfill completed
View: Northwest





Photograph: 8 Date: 8/4/2022
Description: Backfill completed.
View: Northeast




APPENDIX C

Lithologic Soil Sampling Logs

 ENSOLUM		Sample Name: PH01		Date: 04/26/2022				
		Site Name: North Brushy Draw Federal 35 #002H						
		Incident Number: NRM2014147987						
		Job Number: 03A1987005						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.09264°N, 103.94825°W			Logged By: GM		Method: Track Hoe			
			Hole Diameter: n/a		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included. SAA - Same As Above								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	dry pad caliche cap, no stain.
M	200	-	No	PH01	1	1	SP-SM	(1-4') moist, brown poorly-graded sand (m.) with gravel and silt, no odor, no stain, no plasticity, no cohesiveness.
M	-	-	No			2	SP-SM	
M	-	-	No			3	SP-SM	
M	200	-	No	PH01	4	4	SP-SM	
						Total Depth: 4 feet bgs.		

 ENSOLUM		Sample Name: PH02		Date: 04/26/2022				
		Site Name: North Brushy Draw Federal 35 #002H						
		Incident Number: NRM2014147987						
		Job Number: 03A1987005						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.09264°N, 103.94825°W			Logged By: GM		Method: Track Hoe			
			Hole Diameter: n/a		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included. SAA - Same As Above								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	dry pad caliche cap, no stain.
M	244	-	No	PH02	1	1	SP-SM	(1-4') moist, brown poorly-graded sand (m.) with gravel and silt, no odor, no stain, no plasticity, no cohesiveness.
M	-	-	No			2	SP-SM	
M	-	-	No			3	SP-SM	
M	232	-	No	PH02	4	4	SP-SM	
						Total Depth: 4 feet bgs.		

 ENSOLUM		Sample Name: BH01		Date: 04/29/2022				
		Site Name: North Brushy Draw Federal 35 #002H						
		Incident Number: NRM2014147987						
		Job Number: 03A1987005						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.09264°N, 103.94825°W			Logged By: GM		Method: Hand Auger			
			Hole Diameter: 2.5 inches		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included. SAA - Same As Above								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	520	-	No	BH01	1	1	SP-SM	(1-4') dry, brown poorly-graded sand (m.) with gravel and silt, no odor, no stain, no plasticity, no cohesiveness.
M	-	-	No			2	SP-SM	(2-4') moisture content changes to moist
M	120	-	No			3	SP-SM	
M	BDL	-	No	BH01	4	4	SP-SM	
						Total Depth: 4 feet bgs.		



APPENDIX D

Tables



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 WPX Energy Permian, LLC - North Brushy Draw Federal 35 #002H/#009H
 Eddy County, New Mexico

Ensolum Project No. 03A1987005 / 03A1987012

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)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	100	600
Excavation Soil Sample Analytical Results (NRM2014147987)									
FS01	04/22/2022	3	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	791
FS01	05/19/2022	4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	75.3
FS02	04/22/2022	3	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	611
FS02	05/19/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	83.4
FS03	04/22/2022	3 - 4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	673
FS03	05/19/2022	4.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	170
FS04	04/22/2022	4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	690
FS04	05/19/2022	4 - 4.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	159
FS05	04/22/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	569
FS06	04/25/2022	3	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	72.1
FS07	04/25/2022	3	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	103
FS08	04/25/2022	3	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	55.5
FS09	04/25/2022	3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	160
FS10	04/25/2022	3 - 4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	219
FS11	04/25/2022	3	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	401
FS12	04/25/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	572
FS13	04/25/2022	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	59.7
FS14	04/25/2022	3 - 4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	559
FS15	04/26/2022	3 - 4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	82.1
FS16	04/26/2022	3 - 4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	317
FS17	04/26/2022	3	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	114
FS18	04/26/2022	3	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	622
FS18	05/19/2022	3.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	167
FS19	04/26/2022	3	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	514
FS20	04/26/2022	3	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	553
FS21	04/27/2022	14 - 15	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	44.7



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 WPX Energy Permian, LLC - North Brushy Draw Federal 35 #002H/#009H
 Eddy County, New Mexico

Ensolum Project No. 03A1987005 / 03A1987012

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)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	100	600
FS22	04/27/2022	14	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	95.4
FS23	04/28/2022	3 - 14	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	87.6
FS24	04/28/2022	3 - 14	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	115
FS25	04/28/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	458
FS26	04/28/2022	3	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	82.3
SW01	04/25/2022	0 - 3	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	471
SW02	04/25/2022	0 - 4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	1,590
SW03	04/27/2022	0 - 4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	303
SW04	04/27/2022	0 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	1,290
SW05	04/28/2022	0 - 14	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	267
SW06	04/28/2022	0 - 14	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	223
SW07	04/28/2022	0 - 14	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	246
SW08	04/28/2022	0 - 14	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	207
SW09	04/28/2022	0 - 14	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	167
SW10	04/28/2022	0 - 14	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	202
SW11	04/28/2022	0 - 14	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	309
SW12	04/28/2022	0 - 14	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	308
SW13	04/28/2022	0 - 14	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	162
SW14	04/28/2022	0 - 14	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	290
SW15	04/29/2022	0 - 3	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	1,310
SW16	04/29/2022	0 - 3	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	209



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 WPX Energy Permian, LLC - North Brushy Draw Federal 35 #002H/#009H
 Eddy County, New Mexico

Ensolum Project No. 03A1987005 / 03A1987012

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)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	100	600
Delineation Soil Sample Analytical Results (NRM2014147987)									
PH01	04/26/2022	1	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	356
PH01	04/26/2022	4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	288
PH02	04/26/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	350
PH02	04/26/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	466
BH01	04/29/2022	0.5	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<5.00
BH01	04/29/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	48.0
Excavation Soil Sample Analytical Results (NRM2020657799)									
FS01	04/22/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	16.2
FS02	04/22/2022	4	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	29.6
FS03	04/22/2022	2 - 4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	222
FS04	04/22/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	187
FS05	04/22/2022	2	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	57.5
FS06	04/22/2022	2	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	13.8
SW01	04/22/2022	0 - 4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	75.9
SW02	04/22/2022	0 - 4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	149

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

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

Gray text indicates soil has been excavated and is no longer present



APPENDIX E

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: 890-2240-1

Laboratory Sample Delivery Group: 03A1987012

Client Project/Site: North Brushy Draw 35-9H

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Anna Byers

Authorized for release by:
5/6/2022 5:48:12 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Laboratory Job ID: 890-2240-1
SDG: 03A1987012

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	12
QC Sample Results	14
QC Association Summary	20
Lab Chronicle	23
Certification Summary	26
Method Summary	27
Sample Summary	28
Chain of Custody	29
Receipt Checklists	30

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
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
SQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Job ID: 890-2240-1

Laboratory: Eurofins Carlsbad

Narrative	
	Job Narrative 890-2240-1

Receipt

The samples were received on 4/26/2022 10:47 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

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.

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Client Sample ID: FS01

Lab Sample ID: 890-2240-1

Date Collected: 04/22/22 08:45

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 4

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		05/04/22 12:43	05/06/22 11:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 11:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 11:08	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/04/22 12:43	05/06/22 11:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 11:08	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/04/22 12:43	05/06/22 11:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	05/04/22 12:43	05/06/22 11:08	1
1,4-Difluorobenzene (Surr)	98		70 - 130	05/04/22 12:43	05/06/22 11:08	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/06/22 12:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/29/22 16:37	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/27/22 16:45	04/28/22 23:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/28/22 23:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/28/22 23:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	04/27/22 16:45	04/28/22 23:54	1
o-Terphenyl	118		70 - 130	04/27/22 16:45	04/28/22 23:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.2		4.96		mg/Kg			04/29/22 15:04	1

Client Sample ID: FS02

Lab Sample ID: 890-2240-2

Date Collected: 04/22/22 09:10

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/04/22 12:43	05/06/22 11:29	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/04/22 12:43	05/06/22 11:29	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/04/22 12:43	05/06/22 11:29	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/04/22 12:43	05/06/22 11:29	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/04/22 12:43	05/06/22 11:29	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/04/22 12:43	05/06/22 11:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	05/04/22 12:43	05/06/22 11:29	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Client Sample ID: FS02

Lab Sample ID: 890-2240-2

Date Collected: 04/22/22 09:10

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	100		70 - 130	05/04/22 12:43	05/06/22 11:29	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/06/22 12:58	1

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		mg/Kg			04/29/22 16:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/27/22 16:45	04/29/22 00:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/27/22 16:45	04/29/22 00:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/27/22 16:45	04/29/22 00:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130				04/27/22 16:45	04/29/22 00:15	1
o-Terphenyl	126		70 - 130				04/27/22 16:45	04/29/22 00:15	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.6		5.01		mg/Kg			04/29/22 15:30	1

Client Sample ID: FS03

Lab Sample ID: 890-2240-3

Date Collected: 04/22/22 09:45

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 2 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:43	05/06/22 11:49	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:43	05/06/22 11:49	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:43	05/06/22 11:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/04/22 12:43	05/06/22 11:49	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:43	05/06/22 11:49	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/04/22 12:43	05/06/22 11:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	05/04/22 12:43	05/06/22 11:49	1
1,4-Difluorobenzene (Surr)	102		70 - 130	05/04/22 12:43	05/06/22 11:49	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/06/22 12:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/29/22 16:37	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Client Sample ID: FS03

Lab Sample ID: 890-2240-3

Date Collected: 04/22/22 09:45

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 2 - 4

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/27/22 16:45	04/29/22 00:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/29/22 00:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/29/22 00:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				04/27/22 16:45	04/29/22 00:36	1
o-Terphenyl	120		70 - 130				04/27/22 16:45	04/29/22 00:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	222		4.98		mg/Kg			04/29/22 15:39	1

Client Sample ID: FS04

Lab Sample ID: 890-2240-4

Date Collected: 04/22/22 09:55

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 2

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		05/04/22 12:43	05/06/22 12:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 12:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 12:09	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/04/22 12:43	05/06/22 12:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 12:09	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/04/22 12:43	05/06/22 12:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130				05/04/22 12:43	05/06/22 12:09	1
1,4-Difluorobenzene (Surr)	102		70 - 130				05/04/22 12:43	05/06/22 12:09	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			05/06/22 12:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/29/22 16:37	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/27/22 16:45	04/29/22 01:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/29/22 01:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/29/22 01:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				04/27/22 16:45	04/29/22 01:18	1
o-Terphenyl	118		70 - 130				04/27/22 16:45	04/29/22 01:18	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Client Sample ID: FS04

Lab Sample ID: 890-2240-4

Date Collected: 04/22/22 09:55

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	187		5.00		mg/Kg			04/29/22 15:48	1

Client Sample ID: FS05

Lab Sample ID: 890-2240-5

Date Collected: 04/22/22 10:30

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 2

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		05/04/22 12:43	05/06/22 12:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 12:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 12:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/04/22 12:43	05/06/22 12:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 12:30	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/04/22 12:43	05/06/22 12:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130				05/04/22 12:43	05/06/22 12:30	1
1,4-Difluorobenzene (Surr)	93		70 - 130				05/04/22 12:43	05/06/22 12:30	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/06/22 12:58	1

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		mg/Kg			04/29/22 16:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/27/22 16:45	04/29/22 01:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/27/22 16:45	04/29/22 01:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/27/22 16:45	04/29/22 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				04/27/22 16:45	04/29/22 01:39	1
o-Terphenyl	104		70 - 130				04/27/22 16:45	04/29/22 01:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.5		4.99		mg/Kg			04/29/22 15:57	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Client Sample ID: FS06

Lab Sample ID: 890-2240-6

Date Collected: 04/22/22 10:45

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:43	05/06/22 12:50	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:43	05/06/22 12:50	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:43	05/06/22 12:50	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/04/22 12:43	05/06/22 12:50	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:43	05/06/22 12:50	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/04/22 12:43	05/06/22 12:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	05/04/22 12:43	05/06/22 12:50	1
1,4-Difluorobenzene (Surr)	94		70 - 130	05/04/22 12:43	05/06/22 12:50	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			05/06/22 12:58	1

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		mg/Kg			04/29/22 16:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/27/22 16:45	04/29/22 02:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/27/22 16:45	04/29/22 02:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/27/22 16:45	04/29/22 02:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	04/27/22 16:45	04/29/22 02:00	1
o-Terphenyl	102		70 - 130	04/27/22 16:45	04/29/22 02:00	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.8		5.03		mg/Kg			04/29/22 16:06	1

Client Sample ID: SW01

Lab Sample ID: 890-2240-7

Date Collected: 04/22/22 10:15

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 0 - 4

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		05/04/22 12:43	05/06/22 13:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 13:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 13:11	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/04/22 12:43	05/06/22 13:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 13:11	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/04/22 12:43	05/06/22 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	05/04/22 12:43	05/06/22 13:11	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Client Sample ID: SW01

Lab Sample ID: 890-2240-7

Date Collected: 04/22/22 10:15

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 0 - 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	101		70 - 130	05/04/22 12:43	05/06/22 13:11	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/06/22 12:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/29/22 16:37	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/27/22 16:45	04/29/22 02:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/29/22 02:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/29/22 02:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130				04/27/22 16:45	04/29/22 02:20	1
o-Terphenyl	98		70 - 130				04/27/22 16:45	04/29/22 02:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75.9		5.00		mg/Kg			04/29/22 16:15	1

Client Sample ID: SW02

Lab Sample ID: 890-2240-8

Date Collected: 04/22/22 10:55

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/05/22 09:49	05/06/22 00:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/05/22 09:49	05/06/22 00:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/05/22 09:49	05/06/22 00:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/05/22 09:49	05/06/22 00:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/05/22 09:49	05/06/22 00:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/05/22 09:49	05/06/22 00:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	05/05/22 09:49	05/06/22 00:55	1
1,4-Difluorobenzene (Surr)	97		70 - 130	05/05/22 09:49	05/06/22 00:55	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/06/22 12:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/29/22 16:37	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Client Sample ID: SW02

Lab Sample ID: 890-2240-8

Date Collected: 04/22/22 10:55

Matrix: Solid

Date Received: 04/26/22 10:47

Sample Depth: 0 - 4

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/27/22 16:45	04/29/22 02:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/29/22 02:41	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/29/22 02:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				04/27/22 16:45	04/29/22 02:41	1
o-Terphenyl	104		70 - 130				04/27/22 16:45	04/29/22 02:41	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	149		5.05		mg/Kg			04/29/22 16:41	1

Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-14385-A-1-E MS	Matrix Spike	105	95
880-14385-A-1-F MSD	Matrix Spike Duplicate	106	92
880-14421-A-3-B MS	Matrix Spike	108	103
880-14421-A-3-C MSD	Matrix Spike Duplicate	109	103
890-2240-1	FS01	107	98
890-2240-2	FS02	104	100
890-2240-3	FS03	109	102
890-2240-4	FS04	110	102
890-2240-5	FS05	101	93
890-2240-6	FS06	100	94
890-2240-7	SW01	109	101
890-2240-8	SW02	103	97
LCS 880-24822/1-A	Lab Control Sample	105	97
LCS 880-24865/1-A	Lab Control Sample	107	98
LCSD 880-24822/2-A	Lab Control Sample Dup	102	96
LCSD 880-24865/2-A	Lab Control Sample Dup	103	102
MB 880-24822/5-A	Method Blank	98	95
MB 880-24865/5-A	Method Blank	97	96
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2237-A-21-E MS	Matrix Spike	76	84
890-2237-A-21-F MSD	Matrix Spike Duplicate	84	95
890-2240-1	FS01	95	118
890-2240-2	FS02	103	126
890-2240-3	FS03	99	120
890-2240-4	FS04	98	118
890-2240-5	FS05	93	104
890-2240-6	FS06	83	102
890-2240-7	SW01	84	98
890-2240-8	SW02	88	104
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-24356/2-A	Lab Control Sample	97	118

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Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)		
LCSD 880-24356/3-A	Lab Control Sample Dup	98	118		
MB 880-24356/1-A	Method Blank	85	100		
Surrogate Legend					
1CO = 1-Chlorooctane					
OTPH = o-Terphenyl					

QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24822/5-A

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24822

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 04:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 04:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 04:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/04/22 12:43	05/06/22 04:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:43	05/06/22 04:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/04/22 12:43	05/06/22 04:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	05/04/22 12:43	05/06/22 04:44	1
1,4-Difluorobenzene (Surr)	95		70 - 130	05/04/22 12:43	05/06/22 04:44	1

Lab Sample ID: LCS 880-24822/1-A

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24822

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07973		mg/Kg		80	70 - 130
Toluene	0.100	0.08490		mg/Kg		85	70 - 130
Ethylbenzene	0.100	0.08759		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1843		mg/Kg		92	70 - 130
o-Xylene	0.100	0.1012		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-24822/2-A

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24822

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.07692		mg/Kg		77	70 - 130	4	35
Toluene	0.100	0.08317		mg/Kg		83	70 - 130	2	35
Ethylbenzene	0.100	0.08632		mg/Kg		86	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1818		mg/Kg		91	70 - 130	1	35
o-Xylene	0.100	0.09989		mg/Kg		100	70 - 130	1	35

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

Lab Sample ID: 880-14385-A-1-E MS

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24822

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1	0.0996	0.05707	F1	mg/Kg		57	70 - 130
Toluene	<0.00201	U F1	0.0996	0.06471	F1	mg/Kg		65	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

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

Lab Sample ID: 880-14385-A-1-E MS

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24822

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U F1	0.0996	0.06720	F1	mg/Kg		67	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.1427		mg/Kg		72	70 - 130
o-Xylene	<0.00201	U F1	0.0996	0.07730		mg/Kg		78	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-14385-A-1-F MSD

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24822

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0994	0.04035	F1	mg/Kg		41	70 - 130	34	35
Toluene	<0.00201	U F1	0.0994	0.04973	F1	mg/Kg		50	70 - 130	26	35
Ethylbenzene	<0.00201	U F1	0.0994	0.05215	F1	mg/Kg		52	70 - 130	25	35
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.1129	F1	mg/Kg		57	70 - 130	23	35
o-Xylene	<0.00201	U F1	0.0994	0.06330	F1	mg/Kg		64	70 - 130	20	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: MB 880-24865/5-A

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/05/22 09:49	05/05/22 17:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	05/05/22 09:49	05/05/22 17:09	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/05/22 09:49	05/05/22 17:09	1

Lab Sample ID: LCS 880-24865/1-A

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09018		mg/Kg		90	70 - 130
Toluene	0.100	0.09404		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09779		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	0.200	0.2055		mg/Kg		103	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

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

Lab Sample ID: LCS 880-24865/1-A

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1105		mg/Kg		110	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-24865/2-A

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24865

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09163		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09036		mg/Kg		90	70 - 130	4	35
Ethylbenzene	0.100	0.09342		mg/Kg		93	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1947		mg/Kg		97	70 - 130	5	35
o-Xylene	0.100	0.1054		mg/Kg		105	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-14421-A-3-B MS

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24865

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.101	0.07720		mg/Kg		77	70 - 130
Toluene	<0.00200	U	0.101	0.07287		mg/Kg		72	70 - 130
Ethylbenzene	<0.00200	U F1	0.101	0.06917	F1	mg/Kg		69	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.202	0.1429		mg/Kg		71	70 - 130
o-Xylene	<0.00200	U	0.101	0.07782		mg/Kg		77	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 880-14421-A-3-C MSD

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24865

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.09416		mg/Kg		95	70 - 130	20	35
Toluene	<0.00200	U	0.0996	0.08901		mg/Kg		89	70 - 130	20	35
Ethylbenzene	<0.00200	U F1	0.0996	0.09019		mg/Kg		91	70 - 130	26	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1874		mg/Kg		94	70 - 130	27	35
o-Xylene	<0.00200	U	0.0996	0.1014		mg/Kg		102	70 - 130	26	35

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

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

Lab Sample ID: 880-14421-A-3-C MSD

Matrix: Solid

Analysis Batch: 24907

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24865

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

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

Lab Sample ID: MB 880-24356/1-A

Matrix: Solid

Analysis Batch: 24366

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24356

	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		04/27/22 16:45	04/28/22 19:44	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/28/22 19:44	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/27/22 16:45	04/28/22 19:44	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil	Fac
1-Chlorooctane	85		70 - 130				04/27/22 16:45	04/28/22 19:44	1	
o-Terphenyl	100		70 - 130				04/27/22 16:45	04/28/22 19:44	1	

Lab Sample ID: LCS 880-24356/2-A

Matrix: Solid

Analysis Batch: 24366

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24356

	Spike	LCS	LCS					%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Gasoline Range Organics (GRO)-C6-C10	1000	1119		mg/Kg		112	70 - 130			
Diesel Range Organics (Over C10-C28)	1000	883.8		mg/Kg		88	70 - 130			
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	97		70 - 130							
o-Terphenyl	118		70 - 130							

Lab Sample ID: LCSD 880-24356/3-A

Matrix: Solid

Analysis Batch: 24366

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24356

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	1000	1104		mg/Kg		110	70 - 130	1	20	
Diesel Range Organics (Over C10-C28)	1000	870.0		mg/Kg		87	70 - 130	2	20	
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	98		70 - 130							
o-Terphenyl	118		70 - 130							

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

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

Lab Sample ID: 890-2237-A-21-E MS

Matrix: Solid

Analysis Batch: 24366

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24356

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	840.0		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	717.9		mg/Kg		70	70 - 130		
										</	

Lab Sample ID: 890-2237-A-21-F MSD

Matrix: Solid

Analysis Batch: 24366

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24356

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	893.3		mg/Kg		87	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	833.5		mg/Kg		81	70 - 130	15	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	84		70 - 130								
o-Terphenyl	95		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24335/1-A

Matrix: Solid

Analysis Batch: 24519

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/29/22 13:44	1

Lab Sample ID: LCS 880-24335/2-A

Matrix: Solid

Analysis Batch: 24519

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254.3		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-24335/3-A

Matrix: Solid

Analysis Batch: 24519

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.1		mg/Kg		102	90 - 110	0	20

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2240-7 MS											Client Sample ID: SW01	
Matrix: Solid											Prep Type: Soluble	
Analysis Batch: 24519												
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits			
Chloride	75.9		250	316.7		mg/Kg		96	90 - 110			

Lab Sample ID: 890-2240-7 MSD											Client Sample ID: SW01	
Matrix: Solid											Prep Type: Soluble	
Analysis Batch: 24519												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	75.9		250	316.2		mg/Kg		96	90 - 110	0	20	

QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

GC VOA

Prep Batch: 24822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2240-1	FS01	Total/NA	Solid	5035	
890-2240-2	FS02	Total/NA	Solid	5035	
890-2240-3	FS03	Total/NA	Solid	5035	
890-2240-4	FS04	Total/NA	Solid	5035	
890-2240-5	FS05	Total/NA	Solid	5035	
890-2240-6	FS06	Total/NA	Solid	5035	
890-2240-7	SW01	Total/NA	Solid	5035	
MB 880-24822/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24822/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24822/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-14385-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-14385-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 24865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2240-8	SW02	Total/NA	Solid	5035	
MB 880-24865/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24865/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24865/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-14421-A-3-B MS	Matrix Spike	Total/NA	Solid	5035	
880-14421-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 24907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2240-1	FS01	Total/NA	Solid	8021B	24822
890-2240-2	FS02	Total/NA	Solid	8021B	24822
890-2240-3	FS03	Total/NA	Solid	8021B	24822
890-2240-4	FS04	Total/NA	Solid	8021B	24822
890-2240-5	FS05	Total/NA	Solid	8021B	24822
890-2240-6	FS06	Total/NA	Solid	8021B	24822
890-2240-7	SW01	Total/NA	Solid	8021B	24822
890-2240-8	SW02	Total/NA	Solid	8021B	24865
MB 880-24822/5-A	Method Blank	Total/NA	Solid	8021B	24822
MB 880-24865/5-A	Method Blank	Total/NA	Solid	8021B	24865
LCS 880-24822/1-A	Lab Control Sample	Total/NA	Solid	8021B	24822
LCS 880-24865/1-A	Lab Control Sample	Total/NA	Solid	8021B	24865
LCSD 880-24822/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24822
LCSD 880-24865/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24865
880-14385-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	24822
880-14385-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24822
880-14421-A-3-B MS	Matrix Spike	Total/NA	Solid	8021B	24865
880-14421-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24865

Analysis Batch: 24984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2240-1	FS01	Total/NA	Solid	Total BTEX	
890-2240-2	FS02	Total/NA	Solid	Total BTEX	
890-2240-3	FS03	Total/NA	Solid	Total BTEX	
890-2240-4	FS04	Total/NA	Solid	Total BTEX	
890-2240-5	FS05	Total/NA	Solid	Total BTEX	
890-2240-6	FS06	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

GC VOA (Continued)

Analysis Batch: 24984 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2240-7	SW01	Total/NA	Solid	Total BTEX	
890-2240-8	SW02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2240-1	FS01	Total/NA	Solid	8015NM Prep	
890-2240-2	FS02	Total/NA	Solid	8015NM Prep	
890-2240-3	FS03	Total/NA	Solid	8015NM Prep	
890-2240-4	FS04	Total/NA	Solid	8015NM Prep	
890-2240-5	FS05	Total/NA	Solid	8015NM Prep	
890-2240-6	FS06	Total/NA	Solid	8015NM Prep	
890-2240-7	SW01	Total/NA	Solid	8015NM Prep	
890-2240-8	SW02	Total/NA	Solid	8015NM Prep	
MB 880-24356/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24356/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24356/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2237-A-21-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2237-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2240-1	FS01	Total/NA	Solid	8015B NM	24356
890-2240-2	FS02	Total/NA	Solid	8015B NM	24356
890-2240-3	FS03	Total/NA	Solid	8015B NM	24356
890-2240-4	FS04	Total/NA	Solid	8015B NM	24356
890-2240-5	FS05	Total/NA	Solid	8015B NM	24356
890-2240-6	FS06	Total/NA	Solid	8015B NM	24356
890-2240-7	SW01	Total/NA	Solid	8015B NM	24356
890-2240-8	SW02	Total/NA	Solid	8015B NM	24356
MB 880-24356/1-A	Method Blank	Total/NA	Solid	8015B NM	24356
LCS 880-24356/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24356
LCSD 880-24356/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24356
890-2237-A-21-E MS	Matrix Spike	Total/NA	Solid	8015B NM	24356
890-2237-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24356

Analysis Batch: 24541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2240-1	FS01	Total/NA	Solid	8015 NM	
890-2240-2	FS02	Total/NA	Solid	8015 NM	
890-2240-3	FS03	Total/NA	Solid	8015 NM	
890-2240-4	FS04	Total/NA	Solid	8015 NM	
890-2240-5	FS05	Total/NA	Solid	8015 NM	
890-2240-6	FS06	Total/NA	Solid	8015 NM	
890-2240-7	SW01	Total/NA	Solid	8015 NM	
890-2240-8	SW02	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

HPLC/IC

Leach Batch: 24335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2240-1	FS01	Soluble	Solid	DI Leach	
890-2240-2	FS02	Soluble	Solid	DI Leach	
890-2240-3	FS03	Soluble	Solid	DI Leach	
890-2240-4	FS04	Soluble	Solid	DI Leach	
890-2240-5	FS05	Soluble	Solid	DI Leach	
890-2240-6	FS06	Soluble	Solid	DI Leach	
890-2240-7	SW01	Soluble	Solid	DI Leach	
890-2240-8	SW02	Soluble	Solid	DI Leach	
MB 880-24335/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24335/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24335/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2240-7 MS	SW01	Soluble	Solid	DI Leach	
890-2240-7 MSD	SW01	Soluble	Solid	DI Leach	

Analysis Batch: 24519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2240-1	FS01	Soluble	Solid	300.0	24335
890-2240-2	FS02	Soluble	Solid	300.0	24335
890-2240-3	FS03	Soluble	Solid	300.0	24335
890-2240-4	FS04	Soluble	Solid	300.0	24335
890-2240-5	FS05	Soluble	Solid	300.0	24335
890-2240-6	FS06	Soluble	Solid	300.0	24335
890-2240-7	SW01	Soluble	Solid	300.0	24335
890-2240-8	SW02	Soluble	Solid	300.0	24335
MB 880-24335/1-A	Method Blank	Soluble	Solid	300.0	24335
LCS 880-24335/2-A	Lab Control Sample	Soluble	Solid	300.0	24335
LCSD 880-24335/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24335
890-2240-7 MS	SW01	Soluble	Solid	300.0	24335
890-2240-7 MSD	SW01	Soluble	Solid	300.0	24335

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Client Sample ID: FS01

Lab Sample ID: 890-2240-1

Date Collected: 04/22/22 08:45

Matrix: Solid

Date Received: 04/26/22 10:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24822	05/04/22 12:43	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24907	05/06/22 11:08	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24984	05/06/22 12:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24541	04/29/22 16:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24356	04/27/22 16:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24366	04/28/22 23:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	24335	04/29/22 10:53	SC	XEN MID
Soluble	Analysis	300.0		1			24519	04/29/22 15:04	SC	XEN MID

Client Sample ID: FS02

Lab Sample ID: 890-2240-2

Date Collected: 04/22/22 09:10

Matrix: Solid

Date Received: 04/26/22 10:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	24822	05/04/22 12:43	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24907	05/06/22 11:29	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24984	05/06/22 12:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24541	04/29/22 16:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24356	04/27/22 16:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24366	04/29/22 00:15	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	24335	04/29/22 10:53	SC	XEN MID
Soluble	Analysis	300.0		1			24519	04/29/22 15:30	SC	XEN MID

Client Sample ID: FS03

Lab Sample ID: 890-2240-3

Date Collected: 04/22/22 09:45

Matrix: Solid

Date Received: 04/26/22 10:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	24822	05/04/22 12:43	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24907	05/06/22 11:49	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24984	05/06/22 12:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24541	04/29/22 16:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24356	04/27/22 16:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24366	04/29/22 00:36	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24335	04/29/22 10:53	SC	XEN MID
Soluble	Analysis	300.0		1			24519	04/29/22 15:39	SC	XEN MID

Client Sample ID: FS04

Lab Sample ID: 890-2240-4

Date Collected: 04/22/22 09:55

Matrix: Solid

Date Received: 04/26/22 10:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24822	05/04/22 12:43	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24907	05/06/22 12:09	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24984	05/06/22 12:58	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Client Sample ID: FS04

Lab Sample ID: 890-2240-4

Date Collected: 04/22/22 09:55

Matrix: Solid

Date Received: 04/26/22 10:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			24541	04/29/22 16:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24356	04/27/22 16:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24366	04/29/22 01:18	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24335	04/29/22 10:53	SC	XEN MID
Soluble	Analysis	300.0		1			24519	04/29/22 15:48	SC	XEN MID

Client Sample ID: FS05

Lab Sample ID: 890-2240-5

Date Collected: 04/22/22 10:30

Matrix: Solid

Date Received: 04/26/22 10:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	24822	05/04/22 12:43	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24907	05/06/22 12:30	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24984	05/06/22 12:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24541	04/29/22 16:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24356	04/27/22 16:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24366	04/29/22 01:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24335	04/29/22 10:53	SC	XEN MID
Soluble	Analysis	300.0		1			24519	04/29/22 15:57	SC	XEN MID

Client Sample ID: FS06

Lab Sample ID: 890-2240-6

Date Collected: 04/22/22 10:45

Matrix: Solid

Date Received: 04/26/22 10:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	24822	05/04/22 12:43	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24907	05/06/22 12:50	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24984	05/06/22 12:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24541	04/29/22 16:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24356	04/27/22 16:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24366	04/29/22 02:00	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	24335	04/29/22 10:53	SC	XEN MID
Soluble	Analysis	300.0		1			24519	04/29/22 16:06	SC	XEN MID

Client Sample ID: SW01

Lab Sample ID: 890-2240-7

Date Collected: 04/22/22 10:15

Matrix: Solid

Date Received: 04/26/22 10:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24822	05/04/22 12:43	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24907	05/06/22 13:11	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24984	05/06/22 12:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24541	04/29/22 16:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24356	04/27/22 16:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24366	04/29/22 02:20	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Client Sample ID: SW01
Date Collected: 04/22/22 10:15
Date Received: 04/26/22 10:47

Lab Sample ID: 890-2240-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	24335	04/29/22 10:53	SC	XEN MID
Soluble	Analysis	300.0		1			24519	04/29/22 16:15	SC	XEN MID

Client Sample ID: SW02
Date Collected: 04/22/22 10:55
Date Received: 04/26/22 10:47

Lab Sample ID: 890-2240-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	24865	05/05/22 09:49	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24907	05/06/22 00:55	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24984	05/06/22 12:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24541	04/29/22 16:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24356	04/27/22 16:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24366	04/29/22 02:41	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	24335	04/29/22 10:53	SC	XEN MID
Soluble	Analysis	300.0		1			24519	04/29/22 16:41	SC	XEN MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

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

Sample Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-9H

Job ID: 890-2240-1
SDG: 03A1987012

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2240-1	FS01	Solid	04/22/22 08:45	04/26/22 10:47	4
890-2240-2	FS02	Solid	04/22/22 09:10	04/26/22 10:47	4
890-2240-3	FS03	Solid	04/22/22 09:45	04/26/22 10:47	2 - 4
890-2240-4	FS04	Solid	04/22/22 09:55	04/26/22 10:47	2
890-2240-5	FS05	Solid	04/22/22 10:30	04/26/22 10:47	2
890-2240-6	FS06	Solid	04/22/22 10:45	04/26/22 10:47	2
890-2240-7	SW01	Solid	04/22/22 10:15	04/26/22 10:47	0 - 4
890-2240-8	SW02	Solid	04/22/22 10:55	04/26/22 10:47	0 - 4

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

Environment Testing

Xenco

Work Order No:

www.xenco.com Page of

Project Manager:	Anna Byers	Bill to: (if different)	Jim Raley
Company Name:	Ensolum	Company Name:	WPX
Address:	3122 National Parks Hwy	Address:	5315 Buena Vista Dr
City, State Zip:	Carlsbad, NM 88220	City, State Zip:	Carlsbad, NM 88220
Phone:	575-288-6754	Email:	abyers@ensolum.com

Project Name:	North Brushy Draw 35-M	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush
Project Number:	03A1907012	Due Date:	
Project Location:	Eddy County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Gilbert Moreno	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	FM-02
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	1.0
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:	1.0
Total Containers:		Corrected Temperature:	1.0

Project Name:	Project Number:	Project Location:	Sampler's Name:	Temp Blank:	Wet Ice:	Thermometer ID:	Correction Factor:	Temperature Reading:	Corrected Temperature:
North Brushy Draw 35-M	03A1907012	Eddy County, NM	Gilbert Moreno	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	FM-02	1.0	1.0	1.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Pres. Code
Fsp01	S	4/22/22	08:45	4'	Comp	1	TH (EPA 815 Mod)	
Fsp02	S	4/22/22	09:10	4'	Comp	1	BTEX (EPA 821 B)	
Fsp03	S	4/22/22	09:45	2-4'	Comp	1	Chloride (EPA 820.0)	
Fsp04	S	4/22/22	09:55	2'	Comp	1		
Fsp05	S	4/22/22	10:30	2'	Comp	1		
Fsp06	S	4/22/22	10:45	2'	Comp	1		
SW01	S	4/22/22	10:55	0-4'	Comp	1		
SW02	S	4/22/22	10:55	0-4'	Comp	1		

Total 2007/6010	200.8/6020:	8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP/SPLP 6010	8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631/245.1/7470/7471	

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>OP</i>	<i>Anna Byers</i>	4/25/22 17:30	2 <i>Anna Byers</i>		4/26/22 10:47
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2240-1

SDG Number: 03A1987012

Login Number: 2240

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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: 890-2240-1

SDG Number: 03A1987012

Login Number: 2240

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 04/27/22 10:53 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2241-1

Laboratory Sample Delivery Group: 03A1987005

Client Project/Site: North Brushy Draw 35-2H

Revision: 1

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Anna Byers

Authorized for release by:

5/10/2022 3:56:38 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Laboratory Job ID: 890-2241-1
SDG: 03A1987005

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	17
QC Sample Results	19
QC Association Summary	25
Lab Chronicle	29
Certification Summary	34
Method Summary	35
Sample Summary	36
Chain of Custody	37
Receipt Checklists	41

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Job ID: 890-2241-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2241-1

Comments

No additional comments.

Revision

The report being provided is a revision of the original report sent on 5/9/2022. The report (revision 1) is being revised due to: Per client email, corrected project name to North Brushy Draw 35-2H.

Receipt

The samples were received on 4/26/2022 10:48 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 was 0.8° C.

Receipt Exceptions

The following samples were listed on the Chain of Custody (COC); however, no samples were received: FS01 (890-2241-1), FS02 (890-2241-2), FS03 (890-2241-3), FS04 (890-2241-4), FS05 (890-2241-5), FS06 (890-2241-6), FS07 (890-2241-7), FS08 (890-2241-8), FS09 (890-2241-9), FS10 (890-2241-10), FS11 (890-2241-11), FS12 (890-2241-12), FS13 (890-2241-13), FS14 (890-2241-14), DNU-CLIENT DELETE (890-2241-15) and SW02 (890-2241-16).

Sample SW01 4-25-2022 9:30 0-3 This sample was never received- after calling the client (Anna Byers) she asked if we can delete sample from login and she will resample and bring it in on a new COC.

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24987 and analytical batch 880-24939 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (CCV 880-24955/20). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS01

Lab Sample ID: 890-2241-1

Date Collected: 04/22/22 14:30

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F2 F1	0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:28	1
Toluene	<0.00200	U F1	0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:28	1
Ethylbenzene	<0.00200	U F1	0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:28	1
m-Xylene & p-Xylene	<0.00400	U F1	0.00400		mg/Kg		05/04/22 12:55	05/06/22 14:28	1
o-Xylene	<0.00200	U F1	0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:28	1
Xylenes, Total	<0.00400	U F1	0.00400		mg/Kg		05/04/22 12:55	05/06/22 14:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	154	S1+	70 - 130	05/04/22 12:55	05/06/22 14:28	1
1,4-Difluorobenzene (Surr)	76		70 - 130	05/04/22 12:55	05/06/22 14:28	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/01/22 22:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 22:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 22:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	04/29/22 14:07	05/01/22 22:26	1
o-Terphenyl	98		70 - 130	04/29/22 14:07	05/01/22 22:26	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4750		49.8		mg/Kg			05/03/22 17:15	10

Client Sample ID: FS02

Lab Sample ID: 890-2241-2

Date Collected: 04/22/22 14:35

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/04/22 12:55	05/06/22 14:54	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/04/22 12:55	05/06/22 14:54	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/04/22 12:55	05/06/22 14:54	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/04/22 12:55	05/06/22 14:54	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/04/22 12:55	05/06/22 14:54	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/04/22 12:55	05/06/22 14:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	165	S1+	70 - 130	05/04/22 12:55	05/06/22 14:54	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS02

Lab Sample ID: 890-2241-2

Date Collected: 04/22/22 14:35

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	84		70 - 130	05/04/22 12:55	05/06/22 14:54	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/01/22 23:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 23:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 23:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				04/29/22 14:07	05/01/22 23:30	1
o-Terphenyl	108		70 - 130				04/29/22 14:07	05/01/22 23:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	611		4.95		mg/Kg			05/03/22 17:21	1

Client Sample ID: FS03

Lab Sample ID: 890-2241-3

Date Collected: 04/22/22 14:40

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 3 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 15:19	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 15:19	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 15:19	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/04/22 12:55	05/06/22 15:19	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 15:19	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/04/22 12:55	05/06/22 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	174	S1+	70 - 130	05/04/22 12:55	05/06/22 15:19	1
1,4-Difluorobenzene (Surr)	85		70 - 130	05/04/22 12:55	05/06/22 15:19	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS03

Date Collected: 04/22/22 14:40

Date Received: 04/26/22 10:48

Sample Depth: 3 - 4

Lab Sample ID: 890-2241-3

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/01/22 23:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 23:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 23:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130				04/29/22 14:07	05/01/22 23:51	1
o-Terphenyl	104		70 - 130				04/29/22 14:07	05/01/22 23:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	673		5.00		mg/Kg			05/03/22 17:28	1

Client Sample ID: FS04

Date Collected: 04/22/22 13:20

Date Received: 04/26/22 10:48

Sample Depth: 4

Lab Sample ID: 890-2241-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 15:45	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 15:45	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 15:45	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/04/22 12:55	05/06/22 15:45	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 15:45	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/04/22 12:55	05/06/22 15:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	178	S1+	70 - 130				05/04/22 12:55	05/06/22 15:45	1
1,4-Difluorobenzene (Surr)	84		70 - 130				05/04/22 12:55	05/06/22 15:45	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/06/22 18:30	1

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		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 00:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 00:11	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 00:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130				04/29/22 14:07	05/02/22 00:11	1
o-Terphenyl	108		70 - 130				04/29/22 14:07	05/02/22 00:11	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS04

Lab Sample ID: 890-2241-4

Date Collected: 04/22/22 13:20

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	736		4.99		mg/Kg			05/03/22 17:34	1

Client Sample ID: FS05

Lab Sample ID: 890-2241-5

Date Collected: 04/22/22 13:25

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 4

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		05/04/22 12:55	05/06/22 16:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/04/22 12:55	05/06/22 16:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/04/22 12:55	05/06/22 16:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/04/22 12:55	05/06/22 16:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/04/22 12:55	05/06/22 16:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/04/22 12:55	05/06/22 16:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	168	S1+	70 - 130				05/04/22 12:55	05/06/22 16:11	1
1,4-Difluorobenzene (Surr)	85		70 - 130				05/04/22 12:55	05/06/22 16:11	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			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/02/22 00:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 00:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 00:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130				04/29/22 14:07	05/02/22 00:31	1
o-Terphenyl	108		70 - 130				04/29/22 14:07	05/02/22 00:31	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	680		5.00		mg/Kg			05/03/22 17:40	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS06

Lab Sample ID: 890-2241-6

Date Collected: 04/25/22 09:50

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 3

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		05/06/22 13:02	05/07/22 01:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 01:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 01:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/06/22 13:02	05/07/22 01:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 01:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/06/22 13:02	05/07/22 01:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	05/06/22 13:02	05/07/22 01:06	1
1,4-Difluorobenzene (Surr)	89		70 - 130	05/06/22 13:02	05/07/22 01:06	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/02/22 00:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 00:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 00:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130	04/29/22 14:07	05/02/22 00:51	1
o-Terphenyl	117		70 - 130	04/29/22 14:07	05/02/22 00:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	72.1		5.00		mg/Kg			05/03/22 17:47	1

Client Sample ID: FS07

Lab Sample ID: 890-2241-7

Date Collected: 04/25/22 09:55

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 3

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		05/06/22 13:02	05/07/22 02:28	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/06/22 13:02	05/07/22 02:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/06/22 13:02	05/07/22 02:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/06/22 13:02	05/07/22 02:28	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/06/22 13:02	05/07/22 02:28	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/06/22 13:02	05/07/22 02:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	05/06/22 13:02	05/07/22 02:28	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS07

Lab Sample ID: 890-2241-7

Date Collected: 04/25/22 09:55

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130	05/06/22 13:02	05/07/22 02:28	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			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/02/22 01:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 01:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 01:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130				04/29/22 14:07	05/02/22 01:12	1
o-Terphenyl	104		70 - 130				04/29/22 14:07	05/02/22 01:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	103		5.04		mg/Kg			05/03/22 18:06	1

Client Sample ID: FS08

Lab Sample ID: 890-2241-8

Date Collected: 04/25/22 10:00

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 3

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		05/06/22 13:02	05/07/22 02:48	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/06/22 13:02	05/07/22 02:48	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/06/22 13:02	05/07/22 02:48	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/06/22 13:02	05/07/22 02:48	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/06/22 13:02	05/07/22 02:48	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/06/22 13:02	05/07/22 02:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130	05/06/22 13:02	05/07/22 02:48	1
1,4-Difluorobenzene (Surr)	110		70 - 130	05/06/22 13:02	05/07/22 02:48	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			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS08

Date Collected: 04/25/22 10:00

Date Received: 04/26/22 10:48

Sample Depth: 3

Lab Sample ID: 890-2241-8

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/02/22 01:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 01:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 01:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130				04/29/22 14:07	05/02/22 01:32	1
o-Terphenyl	103		70 - 130				04/29/22 14:07	05/02/22 01:32	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.5		4.99		mg/Kg			05/03/22 18:12	1

Client Sample ID: FS09

Date Collected: 04/25/22 10:45

Date Received: 04/26/22 10:48

Sample Depth: 3

Lab Sample ID: 890-2241-9

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/06/22 13:02	05/07/22 03:08	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/06/22 13:02	05/07/22 03:08	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/06/22 13:02	05/07/22 03:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/06/22 13:02	05/07/22 03:08	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/06/22 13:02	05/07/22 03:08	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/06/22 13:02	05/07/22 03:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130				05/06/22 13:02	05/07/22 03:08	1
1,4-Difluorobenzene (Surr)	90		70 - 130				05/06/22 13:02	05/07/22 03:08	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/02/22 01:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 01:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 01:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				04/29/22 14:07	05/02/22 01:52	1
o-Terphenyl	101		70 - 130				04/29/22 14:07	05/02/22 01:52	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS09

Date Collected: 04/25/22 10:45

Date Received: 04/26/22 10:48

Sample Depth: 3

Lab Sample ID: 890-2241-9

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	160		4.97		mg/Kg			05/03/22 18:31	1

Client Sample ID: FS10

Date Collected: 04/25/22 10:50

Date Received: 04/26/22 10:48

Sample Depth: 3 - 4

Lab Sample ID: 890-2241-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/06/22 13:02	05/07/22 03:29	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/06/22 13:02	05/07/22 03:29	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/06/22 13:02	05/07/22 03:29	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/06/22 13:02	05/07/22 03:29	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/06/22 13:02	05/07/22 03:29	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/06/22 13:02	05/07/22 03:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130				05/06/22 13:02	05/07/22 03:29	1
1,4-Difluorobenzene (Surr)	90		70 - 130				05/06/22 13:02	05/07/22 03:29	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/02/22 02:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 02:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 02:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130				04/29/22 14:07	05/02/22 02:12	1
o-Terphenyl	111		70 - 130				04/29/22 14:07	05/02/22 02:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	219		5.00		mg/Kg			05/03/22 18:38	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS11

Lab Sample ID: 890-2241-11

Date Collected: 04/25/22 12:15

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 3

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		05/06/22 13:02	05/07/22 03:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 03:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 03:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/06/22 13:02	05/07/22 03:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 03:49	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/06/22 13:02	05/07/22 03:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	05/06/22 13:02	05/07/22 03:49	1
1,4-Difluorobenzene (Surr)	88		70 - 130	05/06/22 13:02	05/07/22 03:49	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			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/02/22 02:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 02:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 02:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	04/29/22 14:07	05/02/22 02:53	1
o-Terphenyl	99		70 - 130	04/29/22 14:07	05/02/22 02:53	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	401		4.99		mg/Kg			05/03/22 18:44	1

Client Sample ID: FS12

Lab Sample ID: 890-2241-12

Date Collected: 04/25/22 14:20

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 4

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		05/06/22 13:02	05/07/22 04:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 04:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 04:10	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/06/22 13:02	05/07/22 04:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 04:10	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/06/22 13:02	05/07/22 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	05/06/22 13:02	05/07/22 04:10	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS12

Lab Sample ID: 890-2241-12

Date Collected: 04/25/22 14:20

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	90		70 - 130	05/06/22 13:02	05/07/22 04:10	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/02/22 03:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 03:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 03:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130				04/29/22 14:07	05/02/22 03:13	1
o-Terphenyl	93		70 - 130				04/29/22 14:07	05/02/22 03:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	572		5.01		mg/Kg			05/03/22 18:50	1

Client Sample ID: FS13

Lab Sample ID: 890-2241-13

Date Collected: 04/25/22 14:25

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 4

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		05/06/22 13:02	05/07/22 04:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 04:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 04:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/06/22 13:02	05/07/22 04:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 04:30	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/06/22 13:02	05/07/22 04:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	315	S1+	70 - 130	05/06/22 13:02	05/07/22 04:30	1
1,4-Difluorobenzene (Surr)	249	S1+	70 - 130	05/06/22 13:02	05/07/22 04:30	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS13

Date Collected: 04/25/22 14:25

Date Received: 04/26/22 10:48

Sample Depth: 4

Lab Sample ID: 890-2241-13

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/02/22 03:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 03:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 03:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130				04/29/22 14:07	05/02/22 03:33	1
o-Terphenyl	118		70 - 130				04/29/22 14:07	05/02/22 03:33	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59.7		4.97		mg/Kg			05/03/22 18:57	1

Client Sample ID: FS14

Date Collected: 04/25/22 14:15

Date Received: 04/26/22 10:48

Sample Depth: 3 - 4

Lab Sample ID: 890-2241-14

Matrix: Solid

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		05/06/22 13:02	05/07/22 04:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 04:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 04:51	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/06/22 13:02	05/07/22 04:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/07/22 04:51	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/06/22 13:02	05/07/22 04:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	299	S1+	70 - 130				05/06/22 13:02	05/07/22 04:51	1
1,4-Difluorobenzene (Surr)	231	S1+	70 - 130				05/06/22 13:02	05/07/22 04:51	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/06/22 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 14:07	05/02/22 03:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 03:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 03:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130				04/29/22 14:07	05/02/22 03:53	1
o-Terphenyl	123		70 - 130				04/29/22 14:07	05/02/22 03:53	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS14

Lab Sample ID: 890-2241-14

Date Collected: 04/25/22 14:15

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 3 - 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	559		4.95		mg/Kg			05/03/22 19:03	1

Client Sample ID: SW02

Lab Sample ID: 890-2241-16

Date Collected: 04/25/22 12:45

Matrix: Solid

Date Received: 04/26/22 10:48

Sample Depth: 0 - 4

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		05/06/22 13:02	05/07/22 05:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/06/22 13:02	05/07/22 05:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/06/22 13:02	05/07/22 05:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/06/22 13:02	05/07/22 05:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/06/22 13:02	05/07/22 05:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/06/22 13:02	05/07/22 05:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130				05/06/22 13:02	05/07/22 05:11	1
1,4-Difluorobenzene (Surr)	89		70 - 130				05/06/22 13:02	05/07/22 05:11	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			05/06/22 18:30	1

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		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 04:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 04:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 04:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				04/29/22 14:07	05/02/22 04:13	1
o-Terphenyl	105		70 - 130				04/29/22 14:07	05/02/22 04:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1590		25.2		mg/Kg			05/03/22 19:09	5

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Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-14397-A-11-G MS	Matrix Spike	117	94
880-14397-A-11-H MSD	Matrix Spike Duplicate	114	94
890-2241-1	FS01	154 S1+	76
890-2241-1 MS	FS01	121	85
890-2241-1 MSD	FS01	137 S1+	78
890-2241-2	FS02	165 S1+	84
890-2241-3	FS03	174 S1+	85
890-2241-4	FS04	178 S1+	84
890-2241-5	FS05	168 S1+	85
890-2241-6	FS06	111	89
890-2241-7	FS07	116	91
890-2241-8	FS08	138 S1+	110
890-2241-9	FS09	116	90
890-2241-10	FS10	112	90
890-2241-11	FS11	111	88
890-2241-12	FS12	117	90
890-2241-13	FS13	315 S1+	249 S1+
890-2241-14	FS14	299 S1+	231 S1+
890-2241-16	SW02	113	89
LCS 880-24825/1-A	Lab Control Sample	169 S1+	90
LCS 880-24987/1-A	Lab Control Sample	108	94
LCSD 880-24825/2-A	Lab Control Sample Dup	164 S1+	89
LCSD 880-24987/2-A	Lab Control Sample Dup	114	95
MB 880-24825/5-A	Method Blank	146031 S1+	263 S1+
MB 880-24939/8	Method Blank	99	91
MB 880-24987/5-A	Method Blank	104	90

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2241-1	FS01	93	98
890-2241-1 MS	FS01	90	82
890-2241-1 MSD	FS01	92	83
890-2241-2	FS02	106	108
890-2241-3	FS03	102	104
890-2241-4	FS04	104	108
890-2241-5	FS05	105	108
890-2241-6	FS06	113	117
890-2241-7	FS07	102	104
890-2241-8	FS08	100	103
890-2241-9	FS09	98	101
890-2241-10	FS10	109	111
890-2241-11	FS11	97	99

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Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2241-12	FS12	90	93
890-2241-13	FS13	117	118
890-2241-14	FS14	119	123
890-2241-16	SW02	106	105
LCS 880-24524/2-A	Lab Control Sample	107	105
LCSD 880-24524/3-A	Lab Control Sample Dup	105	104
MB 880-24524/1-A	Method Blank	97	106
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24825/5-A

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.002348		0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:02	1
Toluene	0.002776		0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/04/22 12:55	05/06/22 14:02	1
o-Xylene	0.002063		0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/04/22 12:55	05/06/22 14:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	146031	S1+	70 - 130	05/04/22 12:55	05/06/22 14:02	1
1,4-Difluorobenzene (Surr)	263	S1+	70 - 130	05/04/22 12:55	05/06/22 14:02	1

Lab Sample ID: LCS 880-24825/1-A

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1133		mg/Kg		113	70 - 130
Toluene	0.100	0.1066		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1240		mg/Kg		124	70 - 130
m-Xylene & p-Xylene	0.200	0.2510		mg/Kg		126	70 - 130
o-Xylene	0.100	0.1212		mg/Kg		121	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	169	S1+	70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: LCSD 880-24825/2-A

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24825

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1091		mg/Kg		109	70 - 130	4	35
Toluene	0.100	0.1031		mg/Kg		103	70 - 130	3	35
Ethylbenzene	0.100	0.1189		mg/Kg		119	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2400		mg/Kg		120	70 - 130	4	35
o-Xylene	0.100	0.1171		mg/Kg		117	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	164	S1+	70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 890-2241-1 MS

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 24825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F2 F1	0.101	<0.00202	U F1	mg/Kg		0.6	70 - 130
Toluene	<0.00200	U F1	0.101	<0.00202	U F1	mg/Kg		0	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

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

Lab Sample ID: 890-2241-1 MS

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 24825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.101	0.05543	F1	mg/Kg		55	70 - 130
m-Xylene & p-Xylene	<0.00400	U F1	0.202	0.1173	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00200	U F1	0.101	0.05796	F1	mg/Kg		57	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 890-2241-1 MSD

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 24825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00200	U F2 F1	0.101	0.05097	F2 F1	mg/Kg		51	70 - 130	195	35
Toluene	<0.00200	U F1	0.101	0.05046	F1	mg/Kg		50	70 - 130	NC	35
Ethylbenzene	<0.00200	U F1	0.101	0.05264	F1	mg/Kg		52	70 - 130	5	35
m-Xylene & p-Xylene	<0.00400	U F1	0.201	0.1084	F1	mg/Kg		54	70 - 130	8	35
o-Xylene	<0.00200	U F1	0.101	0.05612	F1	mg/Kg		56	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130
1,4-Difluorobenzene (Surr)	78		70 - 130

Lab Sample ID: MB 880-24939/8

Matrix: Solid

Analysis Batch: 24939

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			05/06/22 11:04	1
Toluene	<0.00200	U	0.00200		mg/Kg			05/06/22 11:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			05/06/22 11:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			05/06/22 11:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			05/06/22 11:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			05/06/22 11:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130		05/06/22 11:04	1
1,4-Difluorobenzene (Surr)	91		70 - 130		05/06/22 11:04	1

Lab Sample ID: MB 880-24987/5-A

Matrix: Solid

Analysis Batch: 24939

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24987

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/06/22 21:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/06/22 21:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/06/22 21:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/06/22 13:02	05/06/22 21:40	1

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

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

Lab Sample ID: MB 880-24987/5-A

Matrix: Solid

Analysis Batch: 24939

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24987

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/06/22 13:02	05/06/22 21:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/06/22 13:02	05/06/22 21:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	05/06/22 13:02	05/06/22 21:40	1
1,4-Difluorobenzene (Surr)	90		70 - 130	05/06/22 13:02	05/06/22 21:40	1

Lab Sample ID: LCS 880-24987/1-A

Matrix: Solid

Analysis Batch: 24939

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24987

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07850		mg/Kg		79	70 - 130
Toluene	0.100	0.08329		mg/Kg		83	70 - 130
Ethylbenzene	0.100	0.08965		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	0.200	0.1836		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09398		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-24987/2-A

Matrix: Solid

Analysis Batch: 24939

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24987

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.07366		mg/Kg		74	70 - 130	6	35
Toluene	0.100	0.07878		mg/Kg		79	70 - 130	6	35
Ethylbenzene	0.100	0.08464		mg/Kg		85	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.1736		mg/Kg		87	70 - 130	6	35
o-Xylene	0.100	0.09023		mg/Kg		90	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-14397-A-11-G MS

Matrix: Solid

Analysis Batch: 24939

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24987

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1 F2	0.100	0.03992	F1	mg/Kg		40	70 - 130
Toluene	<0.00201	U F1	0.100	0.04472	F1	mg/Kg		45	70 - 130
Ethylbenzene	<0.00201	U F1 F2	0.100	0.04628	F1	mg/Kg		46	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.09946	F1	mg/Kg		50	70 - 130
o-Xylene	<0.00201	U F1	0.100	0.05188	F1	mg/Kg		52	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

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

Lab Sample ID: 880-14397-A-11-G MS

Matrix: Solid

Analysis Batch: 24939

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24987

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-14397-A-11-H MSD

Matrix: Solid

Analysis Batch: 24939

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24987

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1 F2	0.0994	0.05892	F1 F2	mg/Kg		59	70 - 130	38	35
Toluene	<0.00201	U F1	0.0994	0.06378	F1	mg/Kg		64	70 - 130	35	35
Ethylbenzene	<0.00201	U F1 F2	0.0994	0.06872	F1 F2	mg/Kg		69	70 - 130	39	35
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.1391		mg/Kg		70	70 - 130	33	35
o-Xylene	<0.00201	U F1	0.0994	0.07164		mg/Kg		72	70 - 130	32	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

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

Lab Sample ID: MB 880-24524/1-A

Matrix: Solid

Analysis Batch: 24575

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24524

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 21:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 21:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 21:21	1

	MB	MB					Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	97		70 - 130				04/29/22 14:07	05/01/22 21:21	1
o-Terphenyl	106		70 - 130				04/29/22 14:07	05/01/22 21:21	1

Lab Sample ID: LCS 880-24524/2-A

Matrix: Solid

Analysis Batch: 24575

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24524

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1109		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1026		mg/Kg		103	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	105		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

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

Lab Sample ID: LCSD 880-24524/3-A

Matrix: Solid

Analysis Batch: 24575

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24524

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1053		mg/Kg		105	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	980.6		mg/Kg		98	70 - 130	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	105		70 - 130						
o-Terphenyl	104		70 - 130						

Lab Sample ID: 890-2241-1 MS

Matrix: Solid

Analysis Batch: 24575

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 24524

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1012		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	803.0		mg/Kg		80	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	90		70 - 130								
o-Terphenyl	82		70 - 130								

Lab Sample ID: 890-2241-1 MSD

Matrix: Solid

Analysis Batch: 24575

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 24524

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1051		mg/Kg		104	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	817.3		mg/Kg		82	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	92		70 - 130								
o-Terphenyl	83		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24517/1-A

Matrix: Solid

Analysis Batch: 24668

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/03/22 15:59	1

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-24517/2-A

Matrix: Solid

Analysis Batch: 24668

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	228.4		mg/Kg		91	90 - 110

Lab Sample ID: LCSD 880-24517/3-A

Matrix: Solid

Analysis Batch: 24668

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	255.9		mg/Kg		102	90 - 110	11	20

Lab Sample ID: 890-2241-6 MS

Matrix: Solid

Analysis Batch: 24668

Client Sample ID: FS06

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	72.1		250	334.2		mg/Kg		105	90 - 110

Lab Sample ID: 890-2241-6 MSD

Matrix: Solid

Analysis Batch: 24668

Client Sample ID: FS06

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	72.1		250	317.3		mg/Kg		98	90 - 110	5	20

QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

GC VOA

Prep Batch: 24825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-1	FS01	Total/NA	Solid	5035	
890-2241-2	FS02	Total/NA	Solid	5035	
890-2241-3	FS03	Total/NA	Solid	5035	
890-2241-4	FS04	Total/NA	Solid	5035	
890-2241-5	FS05	Total/NA	Solid	5035	
MB 880-24825/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24825/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24825/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2241-1 MS	FS01	Total/NA	Solid	5035	
890-2241-1 MSD	FS01	Total/NA	Solid	5035	

Analysis Batch: 24939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-6	FS06	Total/NA	Solid	8021B	24987
890-2241-7	FS07	Total/NA	Solid	8021B	24987
890-2241-8	FS08	Total/NA	Solid	8021B	24987
890-2241-9	FS09	Total/NA	Solid	8021B	24987
890-2241-10	FS10	Total/NA	Solid	8021B	24987
890-2241-11	FS11	Total/NA	Solid	8021B	24987
890-2241-12	FS12	Total/NA	Solid	8021B	24987
890-2241-13	FS13	Total/NA	Solid	8021B	24987
890-2241-14	FS14	Total/NA	Solid	8021B	24987
890-2241-16	SW02	Total/NA	Solid	8021B	24987
MB 880-24939/8	Method Blank	Total/NA	Solid	8021B	
MB 880-24987/5-A	Method Blank	Total/NA	Solid	8021B	24987
LCS 880-24987/1-A	Lab Control Sample	Total/NA	Solid	8021B	24987
LCSD 880-24987/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24987
880-14397-A-11-G MS	Matrix Spike	Total/NA	Solid	8021B	24987
880-14397-A-11-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24987

Analysis Batch: 24955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-1	FS01	Total/NA	Solid	8021B	24825
890-2241-2	FS02	Total/NA	Solid	8021B	24825
890-2241-3	FS03	Total/NA	Solid	8021B	24825
890-2241-4	FS04	Total/NA	Solid	8021B	24825
890-2241-5	FS05	Total/NA	Solid	8021B	24825
MB 880-24825/5-A	Method Blank	Total/NA	Solid	8021B	24825
LCS 880-24825/1-A	Lab Control Sample	Total/NA	Solid	8021B	24825
LCSD 880-24825/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24825
890-2241-1 MS	FS01	Total/NA	Solid	8021B	24825
890-2241-1 MSD	FS01	Total/NA	Solid	8021B	24825

Prep Batch: 24987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-6	FS06	Total/NA	Solid	5035	
890-2241-7	FS07	Total/NA	Solid	5035	
890-2241-8	FS08	Total/NA	Solid	5035	
890-2241-9	FS09	Total/NA	Solid	5035	
890-2241-10	FS10	Total/NA	Solid	5035	
890-2241-11	FS11	Total/NA	Solid	5035	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

GC VOA (Continued)

Prep Batch: 24987 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-12	FS12	Total/NA	Solid	5035	
890-2241-13	FS13	Total/NA	Solid	5035	
890-2241-14	FS14	Total/NA	Solid	5035	
890-2241-16	SW02	Total/NA	Solid	5035	
MB 880-24987/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24987/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24987/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-14397-A-11-G MS	Matrix Spike	Total/NA	Solid	5035	
880-14397-A-11-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 25013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-1	FS01	Total/NA	Solid	Total BTEX	
890-2241-2	FS02	Total/NA	Solid	Total BTEX	
890-2241-3	FS03	Total/NA	Solid	Total BTEX	
890-2241-4	FS04	Total/NA	Solid	Total BTEX	
890-2241-5	FS05	Total/NA	Solid	Total BTEX	
890-2241-6	FS06	Total/NA	Solid	Total BTEX	
890-2241-7	FS07	Total/NA	Solid	Total BTEX	
890-2241-8	FS08	Total/NA	Solid	Total BTEX	
890-2241-9	FS09	Total/NA	Solid	Total BTEX	
890-2241-10	FS10	Total/NA	Solid	Total BTEX	
890-2241-11	FS11	Total/NA	Solid	Total BTEX	
890-2241-12	FS12	Total/NA	Solid	Total BTEX	
890-2241-13	FS13	Total/NA	Solid	Total BTEX	
890-2241-14	FS14	Total/NA	Solid	Total BTEX	
890-2241-16	SW02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-1	FS01	Total/NA	Solid	8015NM Prep	
890-2241-2	FS02	Total/NA	Solid	8015NM Prep	
890-2241-3	FS03	Total/NA	Solid	8015NM Prep	
890-2241-4	FS04	Total/NA	Solid	8015NM Prep	
890-2241-5	FS05	Total/NA	Solid	8015NM Prep	
890-2241-6	FS06	Total/NA	Solid	8015NM Prep	
890-2241-7	FS07	Total/NA	Solid	8015NM Prep	
890-2241-8	FS08	Total/NA	Solid	8015NM Prep	
890-2241-9	FS09	Total/NA	Solid	8015NM Prep	
890-2241-10	FS10	Total/NA	Solid	8015NM Prep	
890-2241-11	FS11	Total/NA	Solid	8015NM Prep	
890-2241-12	FS12	Total/NA	Solid	8015NM Prep	
890-2241-13	FS13	Total/NA	Solid	8015NM Prep	
890-2241-14	FS14	Total/NA	Solid	8015NM Prep	
890-2241-16	SW02	Total/NA	Solid	8015NM Prep	
MB 880-24524/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24524/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24524/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2241-1 MS	FS01	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

GC Semi VOA (Continued)

Prep Batch: 24524 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-1	FS01	Total/NA	Solid	8015B NM	24524
890-2241-2	FS02	Total/NA	Solid	8015B NM	24524
890-2241-3	FS03	Total/NA	Solid	8015B NM	24524
890-2241-4	FS04	Total/NA	Solid	8015B NM	24524
890-2241-5	FS05	Total/NA	Solid	8015B NM	24524
890-2241-6	FS06	Total/NA	Solid	8015B NM	24524
890-2241-7	FS07	Total/NA	Solid	8015B NM	24524
890-2241-8	FS08	Total/NA	Solid	8015B NM	24524
890-2241-9	FS09	Total/NA	Solid	8015B NM	24524
890-2241-10	FS10	Total/NA	Solid	8015B NM	24524
890-2241-11	FS11	Total/NA	Solid	8015B NM	24524
890-2241-12	FS12	Total/NA	Solid	8015B NM	24524
890-2241-13	FS13	Total/NA	Solid	8015B NM	24524
890-2241-14	FS14	Total/NA	Solid	8015B NM	24524
890-2241-16	SW02	Total/NA	Solid	8015B NM	24524
MB 880-24524/1-A	Method Blank	Total/NA	Solid	8015B NM	24524
LCS 880-24524/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24524
LCSD 880-24524/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24524
890-2241-1 MS	FS01	Total/NA	Solid	8015B NM	24524
890-2241-1 MSD	FS01	Total/NA	Solid	8015B NM	24524

Analysis Batch: 24623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-1	FS01	Total/NA	Solid	8015 NM	
890-2241-2	FS02	Total/NA	Solid	8015 NM	
890-2241-3	FS03	Total/NA	Solid	8015 NM	
890-2241-4	FS04	Total/NA	Solid	8015 NM	
890-2241-5	FS05	Total/NA	Solid	8015 NM	
890-2241-6	FS06	Total/NA	Solid	8015 NM	
890-2241-7	FS07	Total/NA	Solid	8015 NM	
890-2241-8	FS08	Total/NA	Solid	8015 NM	
890-2241-9	FS09	Total/NA	Solid	8015 NM	
890-2241-10	FS10	Total/NA	Solid	8015 NM	
890-2241-11	FS11	Total/NA	Solid	8015 NM	
890-2241-12	FS12	Total/NA	Solid	8015 NM	
890-2241-13	FS13	Total/NA	Solid	8015 NM	
890-2241-14	FS14	Total/NA	Solid	8015 NM	
890-2241-16	SW02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 24517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-1	FS01	Soluble	Solid	DI Leach	
890-2241-2	FS02	Soluble	Solid	DI Leach	
890-2241-3	FS03	Soluble	Solid	DI Leach	
890-2241-4	FS04	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

HPLC/IC (Continued)

Leach Batch: 24517 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-5	FS05	Soluble	Solid	DI Leach	
890-2241-6	FS06	Soluble	Solid	DI Leach	
890-2241-7	FS07	Soluble	Solid	DI Leach	
890-2241-8	FS08	Soluble	Solid	DI Leach	
890-2241-9	FS09	Soluble	Solid	DI Leach	
890-2241-10	FS10	Soluble	Solid	DI Leach	
890-2241-11	FS11	Soluble	Solid	DI Leach	
890-2241-12	FS12	Soluble	Solid	DI Leach	
890-2241-13	FS13	Soluble	Solid	DI Leach	
890-2241-14	FS14	Soluble	Solid	DI Leach	
890-2241-16	SW02	Soluble	Solid	DI Leach	
MB 880-24517/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24517/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24517/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2241-6 MS	FS06	Soluble	Solid	DI Leach	
890-2241-6 MSD	FS06	Soluble	Solid	DI Leach	

Analysis Batch: 24668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2241-1	FS01	Soluble	Solid	300.0	24517
890-2241-2	FS02	Soluble	Solid	300.0	24517
890-2241-3	FS03	Soluble	Solid	300.0	24517
890-2241-4	FS04	Soluble	Solid	300.0	24517
890-2241-5	FS05	Soluble	Solid	300.0	24517
890-2241-6	FS06	Soluble	Solid	300.0	24517
890-2241-7	FS07	Soluble	Solid	300.0	24517
890-2241-8	FS08	Soluble	Solid	300.0	24517
890-2241-9	FS09	Soluble	Solid	300.0	24517
890-2241-10	FS10	Soluble	Solid	300.0	24517
890-2241-11	FS11	Soluble	Solid	300.0	24517
890-2241-12	FS12	Soluble	Solid	300.0	24517
890-2241-13	FS13	Soluble	Solid	300.0	24517
890-2241-14	FS14	Soluble	Solid	300.0	24517
890-2241-16	SW02	Soluble	Solid	300.0	24517
MB 880-24517/1-A	Method Blank	Soluble	Solid	300.0	24517
LCS 880-24517/2-A	Lab Control Sample	Soluble	Solid	300.0	24517
LCSD 880-24517/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24517
890-2241-6 MS	FS06	Soluble	Solid	300.0	24517
890-2241-6 MSD	FS06	Soluble	Solid	300.0	24517

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Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS01

Date Collected: 04/22/22 14:30

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	24825	05/04/22 12:55	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24955	05/06/22 14:28	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/01/22 22:26	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		10			24668	05/03/22 17:15	CH	XEN MID

Client Sample ID: FS02

Date Collected: 04/22/22 14:35

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	24825	05/04/22 12:55	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24955	05/06/22 14:54	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/01/22 23:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 17:21	CH	XEN MID

Client Sample ID: FS03

Date Collected: 04/22/22 14:40

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	24825	05/04/22 12:55	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24955	05/06/22 15:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/01/22 23:51	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 17:28	CH	XEN MID

Client Sample ID: FS04

Date Collected: 04/22/22 13:20

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	24825	05/04/22 12:55	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24955	05/06/22 15:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID

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Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS04

Date Collected: 04/22/22 13:20

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 00:11	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 17:34	CH	XEN MID

Client Sample ID: FS05

Date Collected: 04/22/22 13:25

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	24825	05/04/22 12:55	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24955	05/06/22 16:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 00:31	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 17:40	CH	XEN MID

Client Sample ID: FS06

Date Collected: 04/25/22 09:50

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	24987	05/06/22 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1			24939	05/07/22 01:06	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 00:51	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 17:47	CH	XEN MID

Client Sample ID: FS07

Date Collected: 04/25/22 09:55

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	24987	05/06/22 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1			24939	05/07/22 02:28	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 01:12	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS07

Date Collected: 04/25/22 09:55

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 18:06	CH	XEN MID

Client Sample ID: FS08

Date Collected: 04/25/22 10:00

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	24987	05/06/22 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1			24939	05/07/22 02:48	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 01:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 18:12	CH	XEN MID

Client Sample ID: FS09

Date Collected: 04/25/22 10:45

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	24987	05/06/22 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1			24939	05/07/22 03:08	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 01:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 18:31	CH	XEN MID

Client Sample ID: FS10

Date Collected: 04/25/22 10:50

Date Received: 04/26/22 10:48

Lab Sample ID: 890-2241-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	24987	05/06/22 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1			24939	05/07/22 03:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 02:12	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 18:38	CH	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS11

Lab Sample ID: 890-2241-11

Date Collected: 04/25/22 12:15

Matrix: Solid

Date Received: 04/26/22 10:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24987	05/06/22 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1			24939	05/07/22 03:49	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 02:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 18:44	CH	XEN MID

Client Sample ID: FS12

Lab Sample ID: 890-2241-12

Date Collected: 04/25/22 14:20

Matrix: Solid

Date Received: 04/26/22 10:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24987	05/06/22 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1			24939	05/07/22 04:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 03:13	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 18:50	CH	XEN MID

Client Sample ID: FS13

Lab Sample ID: 890-2241-13

Date Collected: 04/25/22 14:25

Matrix: Solid

Date Received: 04/26/22 10:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	24987	05/06/22 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1			24939	05/07/22 04:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 03:33	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 18:57	CH	XEN MID

Client Sample ID: FS14

Lab Sample ID: 890-2241-14

Date Collected: 04/25/22 14:15

Matrix: Solid

Date Received: 04/26/22 10:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24987	05/06/22 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1			24939	05/07/22 04:51	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Client Sample ID: FS14

Lab Sample ID: 890-2241-14

Date Collected: 04/25/22 14:15

Matrix: Solid

Date Received: 04/26/22 10:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 03:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		1			24668	05/03/22 19:03	CH	XEN MID

Client Sample ID: SW02

Lab Sample ID: 890-2241-16

Date Collected: 04/25/22 12:45

Matrix: Solid

Date Received: 04/26/22 10:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	24987	05/06/22 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1			24939	05/07/22 05:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25013	05/06/22 18:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24623	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 04:13	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	24517	04/29/22 11:21	SC	XEN MID
Soluble	Analysis	300.0		5			24668	05/03/22 19:09	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
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum

Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1

SDG: 03A1987005

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

Sample Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2241-1
SDG: 03A1987005

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2241-1	FS01	Solid	04/22/22 14:30	04/26/22 10:48	3
890-2241-2	FS02	Solid	04/22/22 14:35	04/26/22 10:48	3
890-2241-3	FS03	Solid	04/22/22 14:40	04/26/22 10:48	3 - 4
890-2241-4	FS04	Solid	04/22/22 13:20	04/26/22 10:48	4
890-2241-5	FS05	Solid	04/22/22 13:25	04/26/22 10:48	4
890-2241-6	FS06	Solid	04/25/22 09:50	04/26/22 10:48	3
890-2241-7	FS07	Solid	04/25/22 09:55	04/26/22 10:48	3
890-2241-8	FS08	Solid	04/25/22 10:00	04/26/22 10:48	3
890-2241-9	FS09	Solid	04/25/22 10:45	04/26/22 10:48	3
890-2241-10	FS10	Solid	04/25/22 10:50	04/26/22 10:48	3 - 4
890-2241-11	FS11	Solid	04/25/22 12:15	04/26/22 10:48	3
890-2241-12	FS12	Solid	04/25/22 14:20	04/26/22 10:48	4
890-2241-13	FS13	Solid	04/25/22 14:25	04/26/22 10:48	4
890-2241-14	FS14	Solid	04/25/22 14:15	04/26/22 10:48	3 - 4
890-2241-16	SW02	Solid	04/25/22 12:45	04/26/22 10:48	0 - 4

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) 794-1256
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Environment Testing

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Work Order No:

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Page

of

2

Project Manager:	Anna Byers	Bill to: (if different)	Jim Raley
Company Name:	Ensulum	Company Name:	WPX
Address:	3122 National Parks Hwy	Address:	5315 Buena Vista Dr.
City, State ZIP:	Carlsbad, NM 88226	City, State ZIP:	Carlsbad, NM 88226
Phone:	575-248-6754	Email:	abyers@ensulum.com

Project Name:	Norm & Ruby Draw 85-2H	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03A1987405	Due Date:	1-1-2027		
Project Location:	Eddy County, NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Gilbert + Moreno				
PO#: CC	1061121501				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Pres. Code
F501	S	4/22/22	14:30	3'	Comp	1	TPH (EPA 815 Mod)	
F502			14:35	3'		1	BTEX (EPA 821 B)	
F503			14:40	3-4'		1	Chloride (EPA 800.0)	
F504			13:20	4'		1		
F505			13:25	4'		1		
F506		4/25/22	09:50	3'		1		
F507			09:55	3'		1		
F508			10:00	3'		1		
F509			10:45	3'		1		
F510			10:50	3-4'		1		

Total 2007/6010	200.8/6020:	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631/245.1/7470/7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Anna Byers</i>	<i>Anna Byers</i>	4/25/22 @ 17:30

Revised Date: 08/25/2020 Rev. 20202

Chain of Custody



Environment Testing

Xenco

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

Work Order No:

www.xenco.com Page 2 of 2

Project Manager:	Anna Byers	Bill to: (if different)	Jim Reley
Company Name:	Ensolium	Company Name:	WPX
Address:	3122 National Parks Hwy	Address:	5315 Buena Vista Dr.
City, State ZIP:	Carlsbad, NM 88228	City, State ZIP:	Carlsbad, NM 88228
Phone:	575-288-6754	Email:	abyers@ensolium.com

Project Name:	No. 4 Bushy Draw 35-2M	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush
Project Number:	03A1987805	Due Date:	
Project Location:	Eddy County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Gilbert Moreno		
PO: CE	1061121501		

SAMPLE RECEIPT		Temp Blank:	Yes No	Wetke:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:			
Cooler Custody Seals:	Yes No N/A	Corrected Temp Factor:			
Sample Custody Seals:	Yes No N/A	Temperature Reading:			
Total Containers:		Corrected Temperature:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Pres. Code	ANALYSIS REQUEST	Preservative Codes
FS11	S	4/25/22	12:15	3'	Comp	1	TPH (EPA 8131 M-0)			None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SACP
FS12			14:20	4'		1	BTEX (EPA 821 B)			
FS13			14:25	4'		1	Chloride (EPA 821 B)			
FS14			14:15	3'-4'		1				
Swag 1			14:30	3'		1				
Swag 2			12:45	0-4'		1				

Total 2007/6010	200.8/6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP/SPLP 6010 : 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
On	Anna Byers	4/25/22 @ 1:30 PM	Anna Byers	N. Byers	4/26/22 10:20 AM

Revised Date: 08/25/2020 Rev. 20.0.2



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

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	ANNA BYERS	Bill to: (if different)	JIM PAREY
Company Name:	ENSOLUM	Company Name:	WPC
Address:	3122 NATIONAL PARKS HWY	Address:	5315 BUENA VISTA DR.
City, State ZIP:	CARLSBAD, NM 88220	City, State ZIP:	CARLSBAD, NM 88220
Phone:	575-200-6754	Email:	ABYERS@ENSOLUM.COM

Project Name:	NORTH BUSHY DRAW 35-2H	Turn Around	
Project Number:	03A1987 005	<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush	2HRS
Project Location:	EDDY COUNTY, NM	Due Date:	
Sampler's Name:	GILBERT MORENO	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	1061121501		

SAMPLE RECEIPT		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Samples Received Intact:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID:	WDM-007	
Cooler Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	-0.2	
Sample Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading:	8.0	
Total Containers:			Corrected Temperature:	7.8	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (FEET)	Grab/Comp	# of Cont
SW 05	S	4-20-22	09:00	0-14"	Comp	1
SW 06			09:05			
SW 07			09:15			
SW 08			09:20			
SW 09			09:25			
SW 10			09:30			
SW 11			09:45			
SW 12			09:50			
SW 13			09:55			
SW 14			10:00			

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		4.28.22 14:18			

Revised Date: 08/25/2020 Rev. 2020.2

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

Environment Testing

Xenco

Work Order No:

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Page 1

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Project Manager: ANITA BYERS						Bill To: (if different) JIM RALEY					
Company Name: ENSOLUN						Company Name: WPK					
Address: 3122 NATIONAL PARKS HWY						Address: 5315 BUENA VISTA DR.					
City, State ZIP: CARLSBAD NM 88220						City, State ZIP: CARLSBAD NM 88220					
Phone: 575 200-6954						Email: ABYERS@ENSOLUN.COM					
Project Name: NORTH BRUSH DAM 35-2H						Turn Around <input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush 24HR					
Project Number: 03A 1987 005						Due Date:					
Project Location: EDDY COUNTY, NM						TAT starts the day received by the lab; if received by 4:30pm					
Sampler's Name: GULBERT MORENO											
PO #: 1061121501											
SAMPLE RECEIPT						Parameters					
Temp Blank: Yes No						Wet Ice: Yes No					
Cooler Received Intact: Yes No						Thermomixer: Yes No					
Cooler Custody Seals: Yes No N/A						Correction Factor: .					
Sample Custody Seals: Yes No N/A						Temperature Reading:					
Total Containers:						Corrected Temperature:					
Sample Identification						# of Cont					
Matrix						Date Sampled					
Time Sampled						Depth					
Grab/Comp						C I					
F323						S 4-28-22 09:35 0-14' C 1					
F324						S 4-28-22 09:40 3-14' C 1					
F325						S 4-28-22 12:00 C 1					
F326						S 4-28-22 14:00 C 1					
Total 200.7 / 6010 200.8 / 6020						8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn					
Circle Method(s) and Metal(s) to be analyzed						TCPL / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471					
Relinquished by: (Signature)						Received by: (Signature)					
Date/Time						Date/Time					
4-28-22 16:18						4-28-22 16:18					
1						4					
3						6					

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2241-1

SDG Number: 03A1987005

Login Number: 2241

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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: 890-2241-1

SDG Number: 03A1987005

Login Number: 2241**List Number: 2****Creator: Kramer, Jessica****List Source: Eurofins Midland****List Creation: 04/29/22 08:26 AM**

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2256-1

Laboratory Sample Delivery Group: 03A1987005

Client Project/Site: North Brushy Draw 35-2H

Revision: 1

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Anna Byers

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

6/10/2022 3:10:42 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

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results through



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www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Laboratory Job ID: 890-2256-1
SDG: 03A1987005

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	13
QC Sample Results	14
QC Association Summary	19
Lab Chronicle	23
Certification Summary	26
Method Summary	27
Sample Summary	28
Chain of Custody	29
Receipt Checklists	30

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Qualifiers

GC VOA

Qualifier	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

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Job ID: 890-2256-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2256-1

REVISION

The report being provided is a revision of the original report sent on 5/9/2022. The report (revision 1) is being revised due to Need re run chlorides on revised report.

Report revision history

Receipt

The samples were received on 4/28/2022 10:41 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 880-24548 and analytical batch 880-24679 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-24652 and analytical batch 880-24754 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-25414 and analytical batch 880-25429 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: FS15

Lab Sample ID: 890-2256-1

Date Collected: 04/26/22 09:00

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 3 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 15:09	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 15:09	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 15:09	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/05/22 11:41	05/07/22 15:09	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 15:09	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/05/22 11:41	05/07/22 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	05/05/22 11:41	05/07/22 15:09	1
1,4-Difluorobenzene (Surr)	92		70 - 130	05/05/22 11:41	05/07/22 15:09	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			05/09/22 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/04/22 10:31	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 16:14	05/03/22 22:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/03/22 22:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/03/22 22:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	05/02/22 16:14	05/03/22 22:28	1
o-Terphenyl	96		70 - 130	05/02/22 16:14	05/03/22 22:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.1		4.98		mg/Kg			05/03/22 22:26	1

Client Sample ID: FS16

Lab Sample ID: 890-2256-2

Date Collected: 04/26/22 10:00

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 3 - 4

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		05/05/22 11:41	05/07/22 15:29	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/05/22 11:41	05/07/22 15:29	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/05/22 11:41	05/07/22 15:29	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/05/22 11:41	05/07/22 15:29	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/05/22 11:41	05/07/22 15:29	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/05/22 11:41	05/07/22 15:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	05/05/22 11:41	05/07/22 15:29	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: FS16

Lab Sample ID: 890-2256-2

Date Collected: 04/26/22 10:00

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 3 - 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	92		70 - 130	05/05/22 11:41	05/07/22 15:29	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			05/09/22 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/04/22 10:31	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 16:14	05/03/22 23:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/03/22 23:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/03/22 23:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				05/02/22 16:14	05/03/22 23:33	1
o-Terphenyl	99		70 - 130				05/02/22 16:14	05/03/22 23:33	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	317		4.97		mg/Kg			05/03/22 22:33	1

Client Sample ID: FS17

Lab Sample ID: 890-2256-3

Date Collected: 04/26/22 09:30

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 15:50	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 15:50	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 15:50	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/05/22 11:41	05/07/22 15:50	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 15:50	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/05/22 11:41	05/07/22 15:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	05/05/22 11:41	05/07/22 15:50	1
1,4-Difluorobenzene (Surr)	92		70 - 130	05/05/22 11:41	05/07/22 15:50	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/09/22 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/04/22 10:31	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: FS17

Lab Sample ID: 890-2256-3

Date Collected: 04/26/22 09:30

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 3

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 16:14	05/03/22 23:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/03/22 23:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/03/22 23:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				05/02/22 16:14	05/03/22 23:54	1
o-Terphenyl	109		70 - 130				05/02/22 16:14	05/03/22 23:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	114		5.00		mg/Kg			05/03/22 22:39	1

Client Sample ID: FS18

Lab Sample ID: 890-2256-4

Date Collected: 04/26/22 10:50

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 3

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		05/05/22 11:41	05/07/22 16:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 16:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 16:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/05/22 11:41	05/07/22 16:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 16:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/05/22 11:41	05/07/22 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				05/05/22 11:41	05/07/22 16:10	1
1,4-Difluorobenzene (Surr)	92		70 - 130				05/05/22 11:41	05/07/22 16:10	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/09/22 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/04/22 10:31	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 16:14	05/04/22 00:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/04/22 00:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/04/22 00:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130				05/02/22 16:14	05/04/22 00:15	1
o-Terphenyl	95		70 - 130				05/02/22 16:14	05/04/22 00:15	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: FS18

Date Collected: 04/26/22 10:50

Date Received: 04/28/22 10:41

Sample Depth: 3

Lab Sample ID: 890-2256-4

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	622		4.96		mg/Kg			05/11/22 09:31	1

Client Sample ID: FS19

Date Collected: 04/26/22 10:45

Date Received: 04/28/22 10:41

Sample Depth: 3

Lab Sample ID: 890-2256-5

Matrix: Solid

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		05/05/22 11:41	05/07/22 16:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 16:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 16:31	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/05/22 11:41	05/07/22 16:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 16:31	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/05/22 11:41	05/07/22 16:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				05/05/22 11:41	05/07/22 16:31	1
1,4-Difluorobenzene (Surr)	91		70 - 130				05/05/22 11:41	05/07/22 16:31	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			05/09/22 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/04/22 10:31	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 16:14	05/04/22 00:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/04/22 00:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/04/22 00:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				05/02/22 16:14	05/04/22 00:37	1
o-Terphenyl	98		70 - 130				05/02/22 16:14	05/04/22 00:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	514		4.99		mg/Kg			05/11/22 09:56	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: FS20

Lab Sample ID: 890-2256-6

Date Collected: 04/26/22 11:30

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 3

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		05/05/22 11:41	05/07/22 16:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 16:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 16:52	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/05/22 11:41	05/07/22 16:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 16:52	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/05/22 11:41	05/07/22 16:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	05/05/22 11:41	05/07/22 16:52	1
1,4-Difluorobenzene (Surr)	91		70 - 130	05/05/22 11:41	05/07/22 16:52	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/09/22 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/04/22 10:31	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 16:14	05/04/22 00:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/04/22 00:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/04/22 00:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	05/02/22 16:14	05/04/22 00:58	1
o-Terphenyl	104		70 - 130	05/02/22 16:14	05/04/22 00:58	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	553		4.98		mg/Kg			05/11/22 10:04	1

Client Sample ID: SW01

Lab Sample ID: 890-2256-7

Date Collected: 04/25/22 09:30

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 0 - 3

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		05/05/22 11:41	05/07/22 17:12	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/05/22 11:41	05/07/22 17:12	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/05/22 11:41	05/07/22 17:12	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/05/22 11:41	05/07/22 17:12	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/05/22 11:41	05/07/22 17:12	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/05/22 11:41	05/07/22 17:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	05/05/22 11:41	05/07/22 17:12	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: SW01

Lab Sample ID: 890-2256-7

Date Collected: 04/25/22 09:30

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 0 - 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	05/05/22 11:41	05/07/22 17:12	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			05/09/22 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/04/22 10:31	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 16:14	05/04/22 01:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/04/22 01:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/04/22 01:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130				05/02/22 16:14	05/04/22 01:19	1
o-Terphenyl	97		70 - 130				05/02/22 16:14	05/04/22 01:19	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	471		4.98		mg/Kg			05/04/22 16:07	1

Client Sample ID: SW03

Lab Sample ID: 890-2256-8

Date Collected: 04/27/22 12:30

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 17:33	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 17:33	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 17:33	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/05/22 11:41	05/07/22 17:33	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/05/22 11:41	05/07/22 17:33	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/05/22 11:41	05/07/22 17:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	05/05/22 11:41	05/07/22 17:33	1
1,4-Difluorobenzene (Surr)	92		70 - 130	05/05/22 11:41	05/07/22 17:33	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/09/22 15:20	1

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		mg/Kg			05/04/22 10:31	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: SW03

Lab Sample ID: 890-2256-8

Date Collected: 04/27/22 12:30

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 0 - 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/02/22 16:14	05/04/22 01:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/02/22 16:14	05/04/22 01:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/02/22 16:14	05/04/22 01:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				05/02/22 16:14	05/04/22 01:41	1
o-Terphenyl	98		70 - 130				05/02/22 16:14	05/04/22 01:41	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	303		4.99		mg/Kg			05/04/22 16:14	1

Client Sample ID: SW04

Lab Sample ID: 890-2256-9

Date Collected: 04/27/22 09:05

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/05/22 11:41	05/07/22 17:53	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/05/22 11:41	05/07/22 17:53	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/05/22 11:41	05/07/22 17:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/05/22 11:41	05/07/22 17:53	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/05/22 11:41	05/07/22 17:53	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/05/22 11:41	05/07/22 17:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130				05/05/22 11:41	05/07/22 17:53	1
1,4-Difluorobenzene (Surr)	86		70 - 130				05/05/22 11:41	05/07/22 17:53	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/09/22 15:20	1

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		mg/Kg			05/04/22 10:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/02/22 16:14	05/04/22 02:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/02/22 16:14	05/04/22 02:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/02/22 16:14	05/04/22 02:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				05/02/22 16:14	05/04/22 02:02	1
o-Terphenyl	107		70 - 130				05/02/22 16:14	05/04/22 02:02	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: SW04
Date Collected: 04/27/22 09:05
Date Received: 04/28/22 10:41
Sample Depth: 0 - 4

Lab Sample ID: 890-2256-9
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1290		25.1		mg/Kg			05/04/22 16:20	5

Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2256-1	FS15	107	92
890-2256-1 MS	FS15	113	95
890-2256-1 MSD	FS15	112	95
890-2256-2	FS16	110	92
890-2256-3	FS17	108	92
890-2256-4	FS18	109	92
890-2256-5	FS19	109	91
890-2256-6	FS20	108	91
890-2256-7	SW01	112	94
890-2256-8	SW03	109	92
890-2256-9	SW04	92	86
LCS 880-24878/1-A	Lab Control Sample	106	94
LCSD 880-24878/2-A	Lab Control Sample Dup	118	92
MB 880-24878/5-A	Method Blank	103	90

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2256-1	FS15	97	96
890-2256-1 MS	FS15	86	78
890-2256-1 MSD	FS15	84	77
890-2256-2	FS16	98	99
890-2256-3	FS17	106	109
890-2256-4	FS18	100	95
890-2256-5	FS19	99	98
890-2256-6	FS20	102	104
890-2256-7	SW01	100	97
890-2256-8	SW03	99	98
890-2256-9	SW04	106	107
LCS 880-24682/2-A	Lab Control Sample	101	102
LCSD 880-24682/3-A	Lab Control Sample Dup	96	96
MB 880-24682/1-A	Method Blank	98	103

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24878/5-A

Matrix: Solid

Analysis Batch: 25025

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 14:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 14:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 14:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/05/22 11:41	05/07/22 14:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/05/22 11:41	05/07/22 14:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/05/22 11:41	05/07/22 14:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	05/05/22 11:41	05/07/22 14:47	1
1,4-Difluorobenzene (Surr)	90		70 - 130	05/05/22 11:41	05/07/22 14:47	1

Lab Sample ID: LCS 880-24878/1-A

Matrix: Solid

Analysis Batch: 25025

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24878

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09699		mg/Kg		97	70 - 130
Toluene	0.100	0.1056		mg/Kg		106	70 - 130
Ethylbenzene	0.100	0.1131		mg/Kg		113	70 - 130
m-Xylene & p-Xylene	0.200	0.2314		mg/Kg		116	70 - 130
o-Xylene	0.100	0.1163		mg/Kg		116	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-24878/2-A

Matrix: Solid

Analysis Batch: 25025

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24878

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.08812		mg/Kg		88	70 - 130	10	35
Toluene	0.100	0.1030		mg/Kg		103	70 - 130	2	35
Ethylbenzene	0.100	0.1133		mg/Kg		113	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2353		mg/Kg		118	70 - 130	2	35
o-Xylene	0.100	0.1184		mg/Kg		118	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 890-2256-1 MS

Matrix: Solid

Analysis Batch: 25025

Client Sample ID: FS15

Prep Type: Total/NA

Prep Batch: 24878

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.0996	0.07632		mg/Kg		77	70 - 130
Toluene	<0.00202	U	0.0996	0.08157		mg/Kg		82	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

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

Lab Sample ID: 890-2256-1 MS

Matrix: Solid

Analysis Batch: 25025

Client Sample ID: FS15

Prep Type: Total/NA

Prep Batch: 24878

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0996	0.08638		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.199	0.1749		mg/Kg		88	70 - 130
o-Xylene	<0.00202	U	0.0996	0.08863		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-2256-1 MSD

Matrix: Solid

Analysis Batch: 25025

Client Sample ID: FS15

Prep Type: Total/NA

Prep Batch: 24878

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00202	U	0.0994	0.08219		mg/Kg		83	70 - 130	7	35
Toluene	<0.00202	U	0.0994	0.08746		mg/Kg		88	70 - 130	7	35
Ethylbenzene	<0.00202	U	0.0994	0.09103		mg/Kg		92	70 - 130	5	35
m-Xylene & p-Xylene	<0.00404	U	0.199	0.1842		mg/Kg		93	70 - 130	5	35
o-Xylene	<0.00202	U	0.0994	0.09352		mg/Kg		94	70 - 130	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

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

Lab Sample ID: MB 880-24682/1-A

Matrix: Solid

Analysis Batch: 24705

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24682

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/03/22 21:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/03/22 21:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 16:14	05/03/22 21:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	05/02/22 16:14	05/03/22 21:25	1
o-Terphenyl	103		70 - 130	05/02/22 16:14	05/03/22 21:25	1

Lab Sample ID: LCS 880-24682/2-A

Matrix: Solid

Analysis Batch: 24705

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24682

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1047		mg/Kg		105	70 - 130
Diesel Range Organics (Over C10-C28)	1000	933.3		mg/Kg		93	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

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

Lab Sample ID: LCS 880-24682/2-A

Matrix: Solid

Analysis Batch: 24705

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24682

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-24682/3-A

Matrix: Solid

Analysis Batch: 24705

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24682

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	960.1		mg/Kg		96	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	847.1		mg/Kg		85	70 - 130	10	20

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

Lab Sample ID: 890-2256-1 MS

Matrix: Solid

Analysis Batch: 24705

Client Sample ID: FS15

Prep Type: Total/NA

Prep Batch: 24682

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	993.4		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	758.8		mg/Kg		76	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	78		70 - 130

Lab Sample ID: 890-2256-1 MSD

Matrix: Solid

Analysis Batch: 24705

Client Sample ID: FS15

Prep Type: Total/NA

Prep Batch: 24682

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	967.2		mg/Kg		94	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	758.0		mg/Kg		76	70 - 130	0	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	77		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24548/1-A

Matrix: Solid

Analysis Batch: 24679

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/03/22 19:41	1

Lab Sample ID: LCS 880-24548/2-A

Matrix: Solid

Analysis Batch: 24679

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	255.3		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-24548/3-A

Matrix: Solid

Analysis Batch: 24679

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	233.7		mg/Kg		93	90 - 110	9	20

Lab Sample ID: 890-2253-A-11-D MS

Matrix: Solid

Analysis Batch: 24679

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	19.2	F1	249	283.2		mg/Kg		106	90 - 110

Lab Sample ID: 890-2253-A-11-E MSD

Matrix: Solid

Analysis Batch: 24679

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	19.2	F1	249	300.7	F1	mg/Kg		113	90 - 110	6	20

Lab Sample ID: MB 880-24652/1-A

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/04/22 15:29	1

Lab Sample ID: LCS 880-24652/2-A

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	272.5		mg/Kg		109	90 - 110

Lab Sample ID: LCSD 880-24652/3-A

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	253.2		mg/Kg		101	90 - 110	7	20

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-2256-6 MS

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: FS20

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	606	F1	250	816.9	F1	mg/Kg		85	90 - 110

Lab Sample ID: 890-2256-6 MSD

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: FS20

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	606	F1	250	836.0		mg/Kg		92	90 - 110	2	20

Lab Sample ID: MB 880-25414/1-A

Matrix: Solid

Analysis Batch: 25429

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/12/22 11:56	1

Lab Sample ID: LCS 880-25414/2-A

Matrix: Solid

Analysis Batch: 25429

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	245.3		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-25414/3-A

Matrix: Solid

Analysis Batch: 25429

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	245.1		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 890-2241-A-5-F MS

Matrix: Solid

Analysis Batch: 25429

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	569	F1	252	795.4		mg/Kg		90	90 - 110

Lab Sample ID: 890-2241-A-5-G MSD

Matrix: Solid

Analysis Batch: 25429

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	569	F1	252	754.8	F1	mg/Kg		74	90 - 110	5	20

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

GC VOA

Prep Batch: 24878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-1	FS15	Total/NA	Solid	5035	
890-2256-2	FS16	Total/NA	Solid	5035	
890-2256-3	FS17	Total/NA	Solid	5035	
890-2256-4	FS18	Total/NA	Solid	5035	
890-2256-5	FS19	Total/NA	Solid	5035	
890-2256-6	FS20	Total/NA	Solid	5035	
890-2256-7	SW01	Total/NA	Solid	5035	
890-2256-8	SW03	Total/NA	Solid	5035	
890-2256-9	SW04	Total/NA	Solid	5035	
MB 880-24878/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24878/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24878/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2256-1 MS	FS15	Total/NA	Solid	5035	
890-2256-1 MSD	FS15	Total/NA	Solid	5035	

Analysis Batch: 25025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-1	FS15	Total/NA	Solid	8021B	24878
890-2256-2	FS16	Total/NA	Solid	8021B	24878
890-2256-3	FS17	Total/NA	Solid	8021B	24878
890-2256-4	FS18	Total/NA	Solid	8021B	24878
890-2256-5	FS19	Total/NA	Solid	8021B	24878
890-2256-6	FS20	Total/NA	Solid	8021B	24878
890-2256-7	SW01	Total/NA	Solid	8021B	24878
890-2256-8	SW03	Total/NA	Solid	8021B	24878
890-2256-9	SW04	Total/NA	Solid	8021B	24878
MB 880-24878/5-A	Method Blank	Total/NA	Solid	8021B	24878
LCS 880-24878/1-A	Lab Control Sample	Total/NA	Solid	8021B	24878
LCSD 880-24878/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24878
890-2256-1 MS	FS15	Total/NA	Solid	8021B	24878
890-2256-1 MSD	FS15	Total/NA	Solid	8021B	24878

Analysis Batch: 25134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-1	FS15	Total/NA	Solid	Total BTEX	
890-2256-2	FS16	Total/NA	Solid	Total BTEX	
890-2256-3	FS17	Total/NA	Solid	Total BTEX	
890-2256-4	FS18	Total/NA	Solid	Total BTEX	
890-2256-5	FS19	Total/NA	Solid	Total BTEX	
890-2256-6	FS20	Total/NA	Solid	Total BTEX	
890-2256-7	SW01	Total/NA	Solid	Total BTEX	
890-2256-8	SW03	Total/NA	Solid	Total BTEX	
890-2256-9	SW04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-1	FS15	Total/NA	Solid	8015NM Prep	
890-2256-2	FS16	Total/NA	Solid	8015NM Prep	
890-2256-3	FS17	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

GC Semi VOA (Continued)

Prep Batch: 24682 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-4	FS18	Total/NA	Solid	8015NM Prep	
890-2256-5	FS19	Total/NA	Solid	8015NM Prep	
890-2256-6	FS20	Total/NA	Solid	8015NM Prep	
890-2256-7	SW01	Total/NA	Solid	8015NM Prep	
890-2256-8	SW03	Total/NA	Solid	8015NM Prep	
890-2256-9	SW04	Total/NA	Solid	8015NM Prep	
MB 880-24682/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24682/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24682/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2256-1 MS	FS15	Total/NA	Solid	8015NM Prep	
890-2256-1 MSD	FS15	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-1	FS15	Total/NA	Solid	8015B NM	24682
890-2256-2	FS16	Total/NA	Solid	8015B NM	24682
890-2256-3	FS17	Total/NA	Solid	8015B NM	24682
890-2256-4	FS18	Total/NA	Solid	8015B NM	24682
890-2256-5	FS19	Total/NA	Solid	8015B NM	24682
890-2256-6	FS20	Total/NA	Solid	8015B NM	24682
890-2256-7	SW01	Total/NA	Solid	8015B NM	24682
890-2256-8	SW03	Total/NA	Solid	8015B NM	24682
890-2256-9	SW04	Total/NA	Solid	8015B NM	24682
MB 880-24682/1-A	Method Blank	Total/NA	Solid	8015B NM	24682
LCS 880-24682/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24682
LCSD 880-24682/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24682
890-2256-1 MS	FS15	Total/NA	Solid	8015B NM	24682
890-2256-1 MSD	FS15	Total/NA	Solid	8015B NM	24682

Analysis Batch: 24787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-1	FS15	Total/NA	Solid	8015 NM	
890-2256-2	FS16	Total/NA	Solid	8015 NM	
890-2256-3	FS17	Total/NA	Solid	8015 NM	
890-2256-4	FS18	Total/NA	Solid	8015 NM	
890-2256-5	FS19	Total/NA	Solid	8015 NM	
890-2256-6	FS20	Total/NA	Solid	8015 NM	
890-2256-7	SW01	Total/NA	Solid	8015 NM	
890-2256-8	SW03	Total/NA	Solid	8015 NM	
890-2256-9	SW04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 24548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-1	FS15	Soluble	Solid	DI Leach	
890-2256-2	FS16	Soluble	Solid	DI Leach	
890-2256-3	FS17	Soluble	Solid	DI Leach	
MB 880-24548/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24548/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24548/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

HPLC/IC (Continued)

Leach Batch: 24548 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-A-11-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2253-A-11-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 24652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-7	SW01	Soluble	Solid	DI Leach	
890-2256-8	SW03	Soluble	Solid	DI Leach	
890-2256-9	SW04	Soluble	Solid	DI Leach	
MB 880-24652/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24652/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24652/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2256-6 MS	FS20	Soluble	Solid	DI Leach	
890-2256-6 MSD	FS20	Soluble	Solid	DI Leach	

Analysis Batch: 24679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-1	FS15	Soluble	Solid	300.0	24548
890-2256-2	FS16	Soluble	Solid	300.0	24548
890-2256-3	FS17	Soluble	Solid	300.0	24548
MB 880-24548/1-A	Method Blank	Soluble	Solid	300.0	24548
LCS 880-24548/2-A	Lab Control Sample	Soluble	Solid	300.0	24548
LCSD 880-24548/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24548
890-2253-A-11-D MS	Matrix Spike	Soluble	Solid	300.0	24548
890-2253-A-11-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24548

Analysis Batch: 24754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-7	SW01	Soluble	Solid	300.0	24652
890-2256-8	SW03	Soluble	Solid	300.0	24652
890-2256-9	SW04	Soluble	Solid	300.0	24652
MB 880-24652/1-A	Method Blank	Soluble	Solid	300.0	24652
LCS 880-24652/2-A	Lab Control Sample	Soluble	Solid	300.0	24652
LCSD 880-24652/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24652
890-2256-6 MS	FS20	Soluble	Solid	300.0	24652
890-2256-6 MSD	FS20	Soluble	Solid	300.0	24652

Leach Batch: 25241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-4	FS18	Soluble	Solid	DI Leach	
890-2256-5	FS19	Soluble	Solid	DI Leach	
890-2256-6	FS20	Soluble	Solid	DI Leach	

Analysis Batch: 25278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2256-4	FS18	Soluble	Solid	300.0	25241
890-2256-5	FS19	Soluble	Solid	300.0	25241
890-2256-6	FS20	Soluble	Solid	300.0	25241

Leach Batch: 25414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-25414/1-A	Method Blank	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

HPLC/IC (Continued)

Leach Batch: 25414 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-25414/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-25414/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2241-A-5-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2241-A-5-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 25429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-25414/1-A	Method Blank	Soluble	Solid	300.0	25414
LCS 880-25414/2-A	Lab Control Sample	Soluble	Solid	300.0	25414
LCSD 880-25414/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	25414
890-2241-A-5-F MS	Matrix Spike	Soluble	Solid	300.0	25414
890-2241-A-5-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	25414

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: FS15

Lab Sample ID: 890-2256-1

Date Collected: 04/26/22 09:00

Matrix: Solid

Date Received: 04/28/22 10:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	24878	05/05/22 11:41	MR	XEN MID
Total/NA	Analysis	8021B		1			25025	05/07/22 15:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25134	05/09/22 15:20	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24787	05/04/22 10:31	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24682	05/02/22 16:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24705	05/03/22 22:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 22:26	CH	XEN MID

Client Sample ID: FS16

Lab Sample ID: 890-2256-2

Date Collected: 04/26/22 10:00

Matrix: Solid

Date Received: 04/28/22 10:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	24878	05/05/22 11:41	MR	XEN MID
Total/NA	Analysis	8021B		1			25025	05/07/22 15:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25134	05/09/22 15:20	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24787	05/04/22 10:31	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24682	05/02/22 16:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24705	05/03/22 23:33	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 22:33	CH	XEN MID

Client Sample ID: FS17

Lab Sample ID: 890-2256-3

Date Collected: 04/26/22 09:30

Matrix: Solid

Date Received: 04/28/22 10:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	24878	05/05/22 11:41	MR	XEN MID
Total/NA	Analysis	8021B		1			25025	05/07/22 15:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25134	05/09/22 15:20	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24787	05/04/22 10:31	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24682	05/02/22 16:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24705	05/03/22 23:54	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 22:39	CH	XEN MID

Client Sample ID: FS18

Lab Sample ID: 890-2256-4

Date Collected: 04/26/22 10:50

Matrix: Solid

Date Received: 04/28/22 10:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	24878	05/05/22 11:41	MR	XEN MID
Total/NA	Analysis	8021B		1			25025	05/07/22 16:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25134	05/09/22 15:20	AJ	XEN MID

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Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: FS18

Date Collected: 04/26/22 10:50

Date Received: 04/28/22 10:41

Lab Sample ID: 890-2256-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			24787	05/04/22 10:31	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24682	05/02/22 16:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24705	05/04/22 00:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	25241	05/10/22 16:45	SC	XEN MID
Soluble	Analysis	300.0		1			25278	05/11/22 09:31	CH	XEN MID

Client Sample ID: FS19

Date Collected: 04/26/22 10:45

Date Received: 04/28/22 10:41

Lab Sample ID: 890-2256-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24878	05/05/22 11:41	MR	XEN MID
Total/NA	Analysis	8021B		1			25025	05/07/22 16:31	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25134	05/09/22 15:20	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24787	05/04/22 10:31	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24682	05/02/22 16:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24705	05/04/22 00:37	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	25241	05/10/22 16:45	SC	XEN MID
Soluble	Analysis	300.0		1			25278	05/11/22 09:56	CH	XEN MID

Client Sample ID: FS20

Date Collected: 04/26/22 11:30

Date Received: 04/28/22 10:41

Lab Sample ID: 890-2256-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24878	05/05/22 11:41	MR	XEN MID
Total/NA	Analysis	8021B		1			25025	05/07/22 16:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25134	05/09/22 15:20	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24787	05/04/22 10:31	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24682	05/02/22 16:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24705	05/04/22 00:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25241	05/10/22 16:45	SC	XEN MID
Soluble	Analysis	300.0		1			25278	05/11/22 10:04	CH	XEN MID

Client Sample ID: SW01

Date Collected: 04/25/22 09:30

Date Received: 04/28/22 10:41

Lab Sample ID: 890-2256-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	24878	05/05/22 11:41	MR	XEN MID
Total/NA	Analysis	8021B		1			25025	05/07/22 17:12	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25134	05/09/22 15:20	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24787	05/04/22 10:31	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24682	05/02/22 16:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24705	05/04/22 01:19	AJ	XEN MID

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Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Client Sample ID: SW01

Date Collected: 04/25/22 09:30

Date Received: 04/28/22 10:41

Lab Sample ID: 890-2256-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	24652	05/02/22 11:50	SC	XEN MID
Soluble	Analysis	300.0		1			24754	05/04/22 16:07	CH	XEN MID

Client Sample ID: SW03

Date Collected: 04/27/22 12:30

Date Received: 04/28/22 10:41

Lab Sample ID: 890-2256-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	24878	05/05/22 11:41	MR	XEN MID
Total/NA	Analysis	8021B		1			25025	05/07/22 17:33	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25134	05/09/22 15:20	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24787	05/04/22 10:31	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24682	05/02/22 16:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24705	05/04/22 01:41	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24652	05/02/22 11:50	SC	XEN MID
Soluble	Analysis	300.0		1			24754	05/04/22 16:14	CH	XEN MID

Client Sample ID: SW04

Date Collected: 04/27/22 09:05

Date Received: 04/28/22 10:41

Lab Sample ID: 890-2256-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	24878	05/05/22 11:41	MR	XEN MID
Total/NA	Analysis	8021B		1			25025	05/07/22 17:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25134	05/09/22 15:20	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24787	05/04/22 10:31	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24682	05/02/22 16:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24705	05/04/22 02:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	24652	05/02/22 11:50	SC	XEN MID
Soluble	Analysis	300.0		5			24754	05/04/22 16:20	CH	XEN MID

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

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

Sample Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2256-1
SDG: 03A1987005

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2256-1	FS15	Solid	04/26/22 09:00	04/28/22 10:41	3 - 4
890-2256-2	FS16	Solid	04/26/22 10:00	04/28/22 10:41	3 - 4
890-2256-3	FS17	Solid	04/26/22 09:30	04/28/22 10:41	3
890-2256-4	FS18	Solid	04/26/22 10:50	04/28/22 10:41	3
890-2256-5	FS19	Solid	04/26/22 10:45	04/28/22 10:41	3
890-2256-6	FS20	Solid	04/26/22 11:30	04/28/22 10:41	3
890-2256-7	SW01	Solid	04/25/22 09:30	04/28/22 10:41	0 - 3
890-2256-8	SW03	Solid	04/27/22 12:30	04/28/22 10:41	0 - 4
890-2256-9	SW04	Solid	04/27/22 09:05	04/28/22 10:41	0 - 4

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

Environment Testing
Xenco

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	Anna Byers	Bill to: (if different)	Tim Raley
Company Name:	Ensolum	Company Name:	WPX
Address:	3122 National Parks Hwy	Address:	5315 Buena Vista Dr.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	575-200-6754	Email:	abyers@ensolum.com

Project Name:	North Brushy Draw 35-2A	Turn Around	
Project Number:	03A1987005	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	
Project Location:	Eddy County, NM	Due Date:	5 DAY
Sampler's Name:	Gilbert Moreno	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	001121501		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Pres. Code
FS15	S	4/26/22	0900	3-4'	Comp	1	TPH (EPA 815.1) (M)	
FS16			1000	3-4'		1	BTEX (EPA 821.0)	
FS17			0930	3'		1	Amide (EPA 820.0)	
FS18			1050	3'		1		
FS19			1045	3'		1		
FS20			1130	3'		1		
SW01		4/25/22	0930	0-3'		1		
SW03		4/25/22	12:30	0-4'		1		
SW04		4/27/22	0905	0-4'		1		

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Anna Byers</i>	<i>Anna Byers</i>	4/26/22 0900
		4/26/22 10:41

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2256-1

SDG Number: 03A1987005

Login Number: 2256

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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: 890-2256-1

SDG Number: 03A1987005

Login Number: 2256**List Number: 2****Creator: Rodriguez, Leticia****List Source: Eurofins Midland****List Creation: 04/29/22 10:53 AM**

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2257-1

Laboratory Sample Delivery Group: 03A1987005

Client Project/Site: North Brushy Draw 35-2H

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Joseph Hernandez

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
5/9/2022 2:43:21 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Laboratory Job ID: 890-2257-1
SDG: 03A1987005

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	9
QC Sample Results	10
QC Association Summary	14
Lab Chronicle	16
Certification Summary	18
Method Summary	19
Sample Summary	20
Chain of Custody	21
Receipt Checklists	23

Definitions/Glossary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Job ID: 890-2257-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2257-1

Receipt

The samples were received on 4/28/2022 10:40 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

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH01 (890-2257-1), PH01 (890-2257-2), PH02 (890-2257-3), PH02 (890-2257-4) and (CCV 880-24955/20). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-24652 and analytical batch 880-24754 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Client Sample ID: PH01

Lab Sample ID: 890-2257-1

Date Collected: 04/26/22 14:10

Matrix: Solid

Date Received: 04/28/22 10:40

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 17:53	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 17:53	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 17:53	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/04/22 12:55	05/06/22 17:53	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/04/22 12:55	05/06/22 17:53	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/04/22 12:55	05/06/22 17:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	168	S1+	70 - 130	05/04/22 12:55	05/06/22 17:53	1
1,4-Difluorobenzene (Surr)	81		70 - 130	05/04/22 12:55	05/06/22 17:53	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/09/22 15:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/03/22 08:38	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 18:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 18:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	05/02/22 08:30	05/02/22 18:23	1
o-Terphenyl	93		70 - 130	05/02/22 08:30	05/02/22 18:23	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	356		4.98		mg/Kg			05/04/22 16:26	1

Client Sample ID: PH01

Lab Sample ID: 890-2257-2

Date Collected: 04/26/22 14:15

Matrix: Solid

Date Received: 04/28/22 10:40

Sample Depth: 4

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		05/04/22 12:55	05/06/22 18:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:55	05/06/22 18:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:55	05/06/22 18:18	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/04/22 12:55	05/06/22 18:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:55	05/06/22 18:18	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/04/22 12:55	05/06/22 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	149	S1+	70 - 130	05/04/22 12:55	05/06/22 18:18	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Client Sample ID: PH01

Lab Sample ID: 890-2257-2

Date Collected: 04/26/22 14:15

Matrix: Solid

Date Received: 04/28/22 10:40

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	89		70 - 130	05/04/22 12:55	05/06/22 18:18	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/09/22 15:19	1

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		mg/Kg			05/03/22 08:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 18:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 18:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 18:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130				05/02/22 08:30	05/02/22 18:45	1
o-Terphenyl	105		70 - 130				05/02/22 08:30	05/02/22 18:45	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	288		4.97		mg/Kg			05/04/22 16:45	1

Client Sample ID: PH02

Lab Sample ID: 890-2257-3

Date Collected: 04/26/22 14:00

Matrix: Solid

Date Received: 04/28/22 10:40

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:55	05/06/22 20:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:55	05/06/22 20:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:55	05/06/22 20:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/04/22 12:55	05/06/22 20:01	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:55	05/06/22 20:01	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/04/22 12:55	05/06/22 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	157	S1+	70 - 130	05/04/22 12:55	05/06/22 20:01	1
1,4-Difluorobenzene (Surr)	76		70 - 130	05/04/22 12:55	05/06/22 20:01	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/09/22 15:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/03/22 08:38	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Client Sample ID: PH02

Lab Sample ID: 890-2257-3

Date Collected: 04/26/22 14:00

Matrix: Solid

Date Received: 04/28/22 10:40

Sample Depth: 1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 19:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 19:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 19:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				05/02/22 08:30	05/02/22 19:07	1
o-Terphenyl	104		70 - 130				05/02/22 08:30	05/02/22 19:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	350		4.95		mg/Kg			05/04/22 16:52	1

Client Sample ID: PH02

Lab Sample ID: 890-2257-4

Date Collected: 04/26/22 14:05

Matrix: Solid

Date Received: 04/28/22 10:40

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:55	05/06/22 20:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:55	05/06/22 20:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:55	05/06/22 20:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/04/22 12:55	05/06/22 20:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/04/22 12:55	05/06/22 20:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/04/22 12:55	05/06/22 20:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	185	S1+	70 - 130				05/04/22 12:55	05/06/22 20:26	1
1,4-Difluorobenzene (Surr)	87		70 - 130				05/04/22 12:55	05/06/22 20:26	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/09/22 15:19	1

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		mg/Kg			05/03/22 08:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 19:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 19:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 19:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130				05/02/22 08:30	05/02/22 19:29	1
o-Terphenyl	99		70 - 130				05/02/22 08:30	05/02/22 19:29	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Client Sample ID: PH02
Date Collected: 04/26/22 14:05
Date Received: 04/28/22 10:40
Sample Depth: 4

Lab Sample ID: 890-2257-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	466		4.96		mg/Kg			05/04/22 16:58	1

Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2241-A-1-G MS	Matrix Spike	121	85
890-2241-A-1-H MSD	Matrix Spike Duplicate	137 S1+	78
890-2257-1	PH01	168 S1+	81
890-2257-2	PH01	149 S1+	89
890-2257-3	PH02	157 S1+	76
890-2257-4	PH02	185 S1+	87
LCS 880-24825/1-A	Lab Control Sample	169 S1+	90
LCSD 880-24825/2-A	Lab Control Sample Dup	164 S1+	89
MB 880-24825/5-A	Method Blank	146031 S1+	263 S1+
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2257-1	PH01	95	93
890-2257-2	PH01	107	105
890-2257-3	PH02	106	104
890-2257-4	PH02	103	99
890-2261-A-1-F MS	Matrix Spike	102	91
890-2261-A-1-G MSD	Matrix Spike Duplicate	100	90
LCS 880-24605/2-A	Lab Control Sample	104	96
LCSD 880-24605/3-A	Lab Control Sample Dup	99	93
MB 880-24605/1-A	Method Blank	93	94
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24825/5-A

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.002348		0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:02	1
Toluene	0.002776		0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/04/22 12:55	05/06/22 14:02	1
o-Xylene	0.002063		0.00200		mg/Kg		05/04/22 12:55	05/06/22 14:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/04/22 12:55	05/06/22 14:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	146031	S1+	70 - 130	05/04/22 12:55	05/06/22 14:02	1
1,4-Difluorobenzene (Surr)	263	S1+	70 - 130	05/04/22 12:55	05/06/22 14:02	1

Lab Sample ID: LCS 880-24825/1-A

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1133		mg/Kg		113	70 - 130
Toluene	0.100	0.1066		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1240		mg/Kg		124	70 - 130
m-Xylene & p-Xylene	0.200	0.2510		mg/Kg		126	70 - 130
o-Xylene	0.100	0.1212		mg/Kg		121	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	169	S1+	70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: LCSD 880-24825/2-A

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24825

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1091		mg/Kg		109	70 - 130	4	35
Toluene	0.100	0.1031		mg/Kg		103	70 - 130	3	35
Ethylbenzene	0.100	0.1189		mg/Kg		119	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2400		mg/Kg		120	70 - 130	4	35
o-Xylene	0.100	0.1171		mg/Kg		117	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	164	S1+	70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 890-2241-A-1-G MS

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1 F2	0.101	<0.00202	U F1	mg/Kg		0.6	70 - 130
Toluene	<0.00200	U F1	0.101	<0.00202	U F1	mg/Kg		0	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

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

Lab Sample ID: 890-2241-A-1-G MS

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.101	0.05543	F1	mg/Kg		55	70 - 130
m-Xylene & p-Xylene	<0.00400	U F1	0.202	0.1173	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00200	U F1	0.101	0.05796	F1	mg/Kg		57	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 890-2241-A-1-H MSD

Matrix: Solid

Analysis Batch: 24955

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1 F2	0.101	0.05097	F1 F2	mg/Kg		51	70 - 130	195	35
Toluene	<0.00200	U F1	0.101	0.05046	F1	mg/Kg		50	70 - 130	NC	35
Ethylbenzene	<0.00200	U F1	0.101	0.05264	F1	mg/Kg		52	70 - 130	5	35
m-Xylene & p-Xylene	<0.00400	U F1	0.201	0.1084	F1	mg/Kg		54	70 - 130	8	35
o-Xylene	<0.00200	U F1	0.101	0.05612	F1	mg/Kg		56	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130
1,4-Difluorobenzene (Surr)	78		70 - 130

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

Lab Sample ID: MB 880-24605/1-A

Matrix: Solid

Analysis Batch: 24615

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24605

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 11:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 11:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 11:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	05/02/22 08:30	05/02/22 11:06	1
o-Terphenyl	94		70 - 130	05/02/22 08:30	05/02/22 11:06	1

Lab Sample ID: LCS 880-24605/2-A

Matrix: Solid

Analysis Batch: 24615

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24605

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1078		mg/Kg		108	70 - 130
Diesel Range Organics (Over C10-C28)	1000	895.7		mg/Kg		90	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

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

Lab Sample ID: LCS 880-24605/2-A
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24605

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-24605/3-A
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24605

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1013		mg/Kg		101	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	840.3		mg/Kg		84	70 - 130	6	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-2261-A-1-F MS
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24605

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1411	F1	mg/Kg		141	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1028		mg/Kg		103	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 890-2261-A-1-G MSD
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24605

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1401	F1	mg/Kg		140	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1000		mg/Kg		100	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	90		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24652/1-A

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/04/22 15:29	1

Lab Sample ID: LCS 880-24652/2-A

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	272.5		mg/Kg		109	90 - 110

Lab Sample ID: LCSD 880-24652/3-A

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	253.2		mg/Kg		101	90 - 110	7	20

Lab Sample ID: 890-2256-A-6-B MS

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	606	F1	250	816.9	F1	mg/Kg		85	90 - 110

Lab Sample ID: 890-2256-A-6-C MSD

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	606	F1	250	836.0		mg/Kg		92	90 - 110	2	20

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

GC VOA

Prep Batch: 24825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2257-1	PH01	Total/NA	Solid	5035	
890-2257-2	PH01	Total/NA	Solid	5035	
890-2257-3	PH02	Total/NA	Solid	5035	
890-2257-4	PH02	Total/NA	Solid	5035	
MB 880-24825/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24825/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24825/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2241-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2241-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 24955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2257-1	PH01	Total/NA	Solid	8021B	24825
890-2257-2	PH01	Total/NA	Solid	8021B	24825
890-2257-3	PH02	Total/NA	Solid	8021B	24825
890-2257-4	PH02	Total/NA	Solid	8021B	24825
MB 880-24825/5-A	Method Blank	Total/NA	Solid	8021B	24825
LCS 880-24825/1-A	Lab Control Sample	Total/NA	Solid	8021B	24825
LCSD 880-24825/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24825
890-2241-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	24825
890-2241-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24825

Analysis Batch: 25131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2257-1	PH01	Total/NA	Solid	Total BTEX	
890-2257-2	PH01	Total/NA	Solid	Total BTEX	
890-2257-3	PH02	Total/NA	Solid	Total BTEX	
890-2257-4	PH02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2257-1	PH01	Total/NA	Solid	8015NM Prep	
890-2257-2	PH01	Total/NA	Solid	8015NM Prep	
890-2257-3	PH02	Total/NA	Solid	8015NM Prep	
890-2257-4	PH02	Total/NA	Solid	8015NM Prep	
MB 880-24605/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24605/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24605/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2261-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2261-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2257-1	PH01	Total/NA	Solid	8015B NM	24605
890-2257-2	PH01	Total/NA	Solid	8015B NM	24605
890-2257-3	PH02	Total/NA	Solid	8015B NM	24605
890-2257-4	PH02	Total/NA	Solid	8015B NM	24605
MB 880-24605/1-A	Method Blank	Total/NA	Solid	8015B NM	24605
LCS 880-24605/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24605

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

GC Semi VOA (Continued)

Analysis Batch: 24615 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-24605/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24605
890-2261-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	24605
890-2261-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24605

Analysis Batch: 24697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2257-1	PH01	Total/NA	Solid	8015 NM	
890-2257-2	PH01	Total/NA	Solid	8015 NM	
890-2257-3	PH02	Total/NA	Solid	8015 NM	
890-2257-4	PH02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 24652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2257-1	PH01	Soluble	Solid	DI Leach	
890-2257-2	PH01	Soluble	Solid	DI Leach	
890-2257-3	PH02	Soluble	Solid	DI Leach	
890-2257-4	PH02	Soluble	Solid	DI Leach	
MB 880-24652/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24652/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24652/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2256-A-6-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2256-A-6-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2257-1	PH01	Soluble	Solid	300.0	24652
890-2257-2	PH01	Soluble	Solid	300.0	24652
890-2257-3	PH02	Soluble	Solid	300.0	24652
890-2257-4	PH02	Soluble	Solid	300.0	24652
MB 880-24652/1-A	Method Blank	Soluble	Solid	300.0	24652
LCS 880-24652/2-A	Lab Control Sample	Soluble	Solid	300.0	24652
LCSD 880-24652/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24652
890-2256-A-6-B MS	Matrix Spike	Soluble	Solid	300.0	24652
890-2256-A-6-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24652

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Client Sample ID: PH01

Lab Sample ID: 890-2257-1

Date Collected: 04/26/22 14:10

Matrix: Solid

Date Received: 04/28/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	24825	05/04/22 12:55	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24955	05/06/22 17:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25131	05/09/22 15:19	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24697	05/03/22 08:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 18:23	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24652	05/02/22 11:50	SC	XEN MID
Soluble	Analysis	300.0		1			24754	05/04/22 16:26	CH	XEN MID

Client Sample ID: PH01

Lab Sample ID: 890-2257-2

Date Collected: 04/26/22 14:15

Matrix: Solid

Date Received: 04/28/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24825	05/04/22 12:55	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24955	05/06/22 18:18	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25131	05/09/22 15:19	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24697	05/03/22 08:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 18:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24652	05/02/22 11:50	SC	XEN MID
Soluble	Analysis	300.0		1			24754	05/04/22 16:45	CH	XEN MID

Client Sample ID: PH02

Lab Sample ID: 890-2257-3

Date Collected: 04/26/22 14:00

Matrix: Solid

Date Received: 04/28/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24825	05/04/22 12:55	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24955	05/06/22 20:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25131	05/09/22 15:19	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24697	05/03/22 08:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 19:07	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24652	05/02/22 11:50	SC	XEN MID
Soluble	Analysis	300.0		1			24754	05/04/22 16:52	CH	XEN MID

Client Sample ID: PH02

Lab Sample ID: 890-2257-4

Date Collected: 04/26/22 14:05

Matrix: Solid

Date Received: 04/28/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	24825	05/04/22 12:55	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24955	05/06/22 20:26	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25131	05/09/22 15:19	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Client Sample ID: PH02
Date Collected: 04/26/22 14:05
Date Received: 04/28/22 10:40

Lab Sample ID: 890-2257-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			24697	05/03/22 08:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 19:29	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	24652	05/02/22 11:50	SC	XEN MID
Soluble	Analysis	300.0		1			24754	05/04/22 16:58	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
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

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

Sample Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2257-1
SDG: 03A1987005

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2257-1	PH01	Solid	04/26/22 14:10	04/28/22 10:40	1
890-2257-2	PH01	Solid	04/26/22 14:15	04/28/22 10:40	4
890-2257-3	PH02	Solid	04/26/22 14:00	04/28/22 10:40	1
890-2257-4	PH02	Solid	04/26/22 14:05	04/28/22 10:40	4

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



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

Environment Testing

Xenco

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager: Anna Byers		Bill to: (if different)		Jim Raley	
Company Name: Ensolum		Company Name:		WPX	
Address: 3122 National Parks Hwy		Address:		5315 Buena Vista Dr.	
City, State ZIP: Carlsbad, NM 88220		City, State ZIP:		Carlsbad, NM 88220	
Phone: 575-288-6754		Email: abyers@ensolum.com			

Project Name: Norm Brushy Draw 35-24		Turn Around			
Project Number: 03A1987005		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush			
Project Location: Eddy County, NM		Due Date: 5 DAY			
Sampler's Name: Gilbert Moreno		TAT starts the day received by the lab, if received by 4:30pm			
p# AB CC 1061121501					

SAMPLE RECEIPT		Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Wet Ice: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Samples Received Intact: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Thermometer ID: T-100007			
Cooler Custody Seals: Yes No (N/A)		Correction Factor: -0.2			
Sample Custody Seals: Yes No (N/A)		Temperature Reading: 1.4			
Total Containers:		Corrected Temperature: 1.2			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	TPH	BTEX	Chloro	Sample Comments
PH01	S	4/26/22	1410	1'	Grab	1	X	X	X	Incident ID: NAM2014147987
PH01	S	4/26/22	1415	4'	↓	1	X	X	X	
PH02	S	4/26/22	1400	1'		1	X	X	X	
PH02	S	4/26/22	1405	4'	↓	1	X	X	X	
<div style="border: 1px solid black; padding: 5px; display: inline-block;">890-2257 Chain of Custody </div>										
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Incident ID: NAM2014147987</div>										

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1. <i>Anna Byers</i>	<i>Anna Byers</i>	4/26/22 @ 1300	2. <i>Anna Byers</i>	<i>Anna Byers</i>	4/26/22 16:40
3. <i>Anna Byers</i>			4. <i>Anna Byers</i>		
5. <i>Anna Byers</i>			6. <i>Anna Byers</i>		

Revised Date 08/25/2010 Rev. 2002

Eurofins Carlsbad

1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2257-1

SDG Number: 03A1987005

Login Number: 2257

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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: 890-2257-1

SDG Number: 03A1987005

Login Number: 2257

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 04/29/22 10:53 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2255-1

Laboratory Sample Delivery Group: 03A1987005

Client Project/Site: North Brushy Draw 35-2H

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Anna Byers

Authorized for release by:
4/29/2022 7:42:57 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Laboratory Job ID: 890-2255-1
SDG: 03A1987005

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

Definitions/Glossary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

Job ID: 890-2255-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-2255-1**

Receipt

The samples were received on 4/28/2022 10:41 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

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24201 and analytical batch 880-24380 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24267 and analytical batch 880-24469 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

Client Sample ID: FS22

Lab Sample ID: 890-2255-1

Date Collected: 04/27/22 09:15

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 14

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/28/22 17:00	04/29/22 12:13	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/28/22 17:00	04/29/22 12:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/28/22 17:00	04/29/22 12:13	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		04/28/22 17:00	04/29/22 12:13	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/28/22 17:00	04/29/22 12:13	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		04/28/22 17:00	04/29/22 12:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/28/22 17:00	04/29/22 12:13	1
1,4-Difluorobenzene (Surr)	94		70 - 130	04/28/22 17:00	04/29/22 12:13	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			04/29/22 15:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/29/22 20:36	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 11:00	04/29/22 13:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 11:00	04/29/22 13:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 11:00	04/29/22 13:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	04/29/22 11:00	04/29/22 13:46	1
o-Terphenyl	108		70 - 130	04/29/22 11:00	04/29/22 13:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	95.4		5.00		mg/Kg			04/29/22 14:37	1

Client Sample ID: FS21

Lab Sample ID: 890-2255-2

Date Collected: 04/27/22 10:50

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 14 - 15

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		04/28/22 17:00	04/29/22 12:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/28/22 17:00	04/29/22 12:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/28/22 17:00	04/29/22 12:33	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/28/22 17:00	04/29/22 12:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/28/22 17:00	04/29/22 12:33	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/28/22 17:00	04/29/22 12:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	04/28/22 17:00	04/29/22 12:33	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

Client Sample ID: FS21

Lab Sample ID: 890-2255-2

Date Collected: 04/27/22 10:50

Matrix: Solid

Date Received: 04/28/22 10:41

Sample Depth: 14 - 15

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	96		70 - 130	04/28/22 17:00	04/29/22 12:33	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			04/29/22 15:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/29/22 20:36	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		04/29/22 11:00	04/29/22 14:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 11:00	04/29/22 14:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 11:00	04/29/22 14:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130				04/29/22 11:00	04/29/22 14:08	1
o-Terphenyl	86		70 - 130				04/29/22 11:00	04/29/22 14:08	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.7		4.99		mg/Kg			04/29/22 14:46	1

Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2225-A-2-G MS	Matrix Spike	104	99
890-2225-A-2-H MSD	Matrix Spike Duplicate	106	100
890-2255-1	FS22	102	94
890-2255-2	FS21	103	96
LCS 880-24201/1-A	Lab Control Sample	100	98
LCSD 880-24201/2-A	Lab Control Sample Dup	101	99
MB 880-24201/5-A	Method Blank	105	95
MB 880-24268/5-A	Method Blank	90	91
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-14112-A-1-B MS	Matrix Spike	77	71
880-14112-A-1-C MSD	Matrix Spike Duplicate	74	65 S1-
890-2255-1	FS22	101	108
890-2255-2	FS21	82	86
LCS 880-24267/2-A	Lab Control Sample	75	71
LCSD 880-24267/3-A	Lab Control Sample Dup	78	74
MB 880-24267/1-A	Method Blank	95	99
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24201/5-A

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24201

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/25/22 15:01	04/29/22 04:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/25/22 15:01	04/29/22 04:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/25/22 15:01	04/29/22 04:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/25/22 15:01	04/29/22 04:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/25/22 15:01	04/29/22 04:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/25/22 15:01	04/29/22 04:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	04/25/22 15:01	04/29/22 04:40	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/25/22 15:01	04/29/22 04:40	1

Lab Sample ID: LCS 880-24201/1-A

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24201

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08999		mg/Kg		90	70 - 130
Toluene	0.100	0.08943		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.08916		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1811		mg/Kg		91	70 - 130
o-Xylene	0.100	0.09261		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-24201/2-A

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24201

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.09563		mg/Kg		96	70 - 130	6	35
Toluene	0.100	0.09619		mg/Kg		96	70 - 130	7	35
Ethylbenzene	0.100	0.09690		mg/Kg		97	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1976		mg/Kg		99	70 - 130	9	35
o-Xylene	0.100	0.1025		mg/Kg		102	70 - 130	10	35

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

Lab Sample ID: 890-2225-A-2-G MS

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24201

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.0994	0.08037		mg/Kg		81	70 - 130
Toluene	<0.00200	U F1	0.0994	0.08058		mg/Kg		80	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

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

Lab Sample ID: 890-2225-A-2-G MS

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24201

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.0994	0.07780		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1	0.199	0.1398	F1	mg/Kg		69	70 - 130
o-Xylene	<0.00200	U	0.0994	0.08703		mg/Kg		86	70 - 130

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

Lab Sample ID: 890-2225-A-2-H MSD

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24201

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0992	0.06553	F1	mg/Kg		66	70 - 130	20	35
Toluene	<0.00200	U F1	0.0992	0.06660	F1	mg/Kg		66	70 - 130	19	35
Ethylbenzene	<0.00200	U F1	0.0992	0.06453	F1	mg/Kg		65	70 - 130	19	35
m-Xylene & p-Xylene	<0.00401	U F1	0.198	0.1259	F1	mg/Kg		62	70 - 130	10	35
o-Xylene	<0.00200	U	0.0992	0.07286		mg/Kg		71	70 - 130	18	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: MB 880-24268/5-A

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24268

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/26/22 15:59	04/28/22 18:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/26/22 15:59	04/28/22 18:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/26/22 15:59	04/28/22 18:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/26/22 15:59	04/28/22 18:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/26/22 15:59	04/28/22 18:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/26/22 15:59	04/28/22 18:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	04/26/22 15:59	04/28/22 18:04	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/26/22 15:59	04/28/22 18:04	1

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

Lab Sample ID: MB 880-24267/1-A

Matrix: Solid

Analysis Batch: 24469

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24267

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/26/22 15:58	04/29/22 11:34	1

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

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

Lab Sample ID: MB 880-24267/1-A

Matrix: Solid

Analysis Batch: 24469

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24267

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/26/22 15:58	04/29/22 11:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/26/22 15:58	04/29/22 11:34	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130				04/26/22 15:58	04/29/22 11:34	1
o-Terphenyl	99		70 - 130				04/26/22 15:58	04/29/22 11:34	1

Lab Sample ID: LCS 880-24267/2-A

Matrix: Solid

Analysis Batch: 24469

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24267

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	888.9		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	1000	701.4		mg/Kg		70	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	75		70 - 130				
o-Terphenyl	71		70 - 130				

Lab Sample ID: LCSD 880-24267/3-A

Matrix: Solid

Analysis Batch: 24469

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24267

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	923.8		mg/Kg		92	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	765.7		mg/Kg		77	70 - 130	9	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	78		70 - 130						
o-Terphenyl	74		70 - 130						

Lab Sample ID: 880-14112-A-1-B MS

Matrix: Solid

Analysis Batch: 24469

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24267

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	808.7		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	705.1		mg/Kg		71	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	77		70 - 130						
o-Terphenyl	71		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

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

Lab Sample ID: 880-14112-A-1-C MSD

Matrix: Solid

Analysis Batch: 24469

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24267

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	754.3		mg/Kg		76	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	661.6	F1	mg/Kg		66	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	74		70 - 130								
o-Terphenyl	65	S1-	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24335/1-A

Matrix: Solid

Analysis Batch: 24519

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/29/22 13:44	1

Lab Sample ID: LCS 880-24335/2-A

Matrix: Solid

Analysis Batch: 24519

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254.3		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-24335/3-A

Matrix: Solid

Analysis Batch: 24519

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.1		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-2240-A-7-B MS

Matrix: Solid

Analysis Batch: 24519

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	75.9		250	316.7		mg/Kg		96	90 - 110

Lab Sample ID: 890-2240-A-7-C MSD

Matrix: Solid

Analysis Batch: 24519

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	75.9		250	316.2		mg/Kg		96	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

GC VOA

Prep Batch: 24201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2255-1	FS22	Total/NA	Solid	5035	
890-2255-2	FS21	Total/NA	Solid	5035	
MB 880-24201/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24201/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24201/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2225-A-2-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2225-A-2-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 24268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-24268/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 24380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2255-1	FS22	Total/NA	Solid	8021B	24201
890-2255-2	FS21	Total/NA	Solid	8021B	24201
MB 880-24201/5-A	Method Blank	Total/NA	Solid	8021B	24201
MB 880-24268/5-A	Method Blank	Total/NA	Solid	8021B	24268
LCS 880-24201/1-A	Lab Control Sample	Total/NA	Solid	8021B	24201
LCSD 880-24201/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24201
890-2225-A-2-G MS	Matrix Spike	Total/NA	Solid	8021B	24201
890-2225-A-2-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24201

Analysis Batch: 24534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2255-1	FS22	Total/NA	Solid	Total BTEX	
890-2255-2	FS21	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2255-1	FS22	Total/NA	Solid	8015NM Prep	
890-2255-2	FS21	Total/NA	Solid	8015NM Prep	
MB 880-24267/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24267/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24267/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-14112-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-14112-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2255-1	FS22	Total/NA	Solid	8015B NM	24267
890-2255-2	FS21	Total/NA	Solid	8015B NM	24267
MB 880-24267/1-A	Method Blank	Total/NA	Solid	8015B NM	24267
LCS 880-24267/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24267
LCSD 880-24267/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24267
880-14112-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	24267
880-14112-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24267

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

GC Semi VOA

Analysis Batch: 24558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2255-1	FS22	Total/NA	Solid	8015 NM	
890-2255-2	FS21	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 24335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2255-1	FS22	Soluble	Solid	DI Leach	
890-2255-2	FS21	Soluble	Solid	DI Leach	
MB 880-24335/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24335/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24335/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2240-A-7-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2240-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2255-1	FS22	Soluble	Solid	300.0	24335
890-2255-2	FS21	Soluble	Solid	300.0	24335
MB 880-24335/1-A	Method Blank	Soluble	Solid	300.0	24335
LCS 880-24335/2-A	Lab Control Sample	Soluble	Solid	300.0	24335
LCSD 880-24335/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24335
890-2240-A-7-B MS	Matrix Spike	Soluble	Solid	300.0	24335
890-2240-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24335

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

Client Sample ID: FS22

Lab Sample ID: 890-2255-1

Date Collected: 04/27/22 09:15

Matrix: Solid

Date Received: 04/28/22 10:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	24201	04/28/22 17:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24380	04/29/22 12:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24534	04/29/22 15:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24558	04/29/22 20:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24267	04/29/22 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24469	04/29/22 13:46	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24335	04/29/22 10:53	SC	XEN MID
Soluble	Analysis	300.0		1			24519	04/29/22 14:37	SC	XEN MID

Client Sample ID: FS21

Lab Sample ID: 890-2255-2

Date Collected: 04/27/22 10:50

Matrix: Solid

Date Received: 04/28/22 10:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24201	04/28/22 17:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24380	04/29/22 12:33	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24534	04/29/22 15:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24558	04/29/22 20:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24267	04/29/22 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24469	04/29/22 14:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24335	04/29/22 10:53	SC	XEN MID
Soluble	Analysis	300.0		1			24519	04/29/22 14:46	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
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- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

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

Sample Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2255-1
SDG: 03A1987005

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2255-1	FS22	Solid	04/27/22 09:15	04/28/22 10:41	14
890-2255-2	FS21	Solid	04/27/22 10:50	04/28/22 10:41	14 - 15

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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

Environment Testing

Xenco

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	Anna Byers	Bill to: (if different)	Jim Raley
Company Name:	Ensolum	Company Name:	WPX
Address:	3122 National Parks Hwy	Address:	5315 Buena Vista Dr.
City, State ZIP:	Carlsbad, NM 88228	City, State ZIP:	Carlsbad, NM 88228
Phone:	575-288-6754	Email:	abyers@ensolum.com

Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="checkbox"/>

Project Name:		Turn Around		Pres. Code		ANALYSIS REQUEST		Preservative Codes	
Project Number:	North Brushy Draw 35-2H	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Rush					None: NO	DI Water: H ₂ O
Project Location:	Eddy County, NM	Due Date:	24 HR					Cool: Cool	MeOH: Me
Sampler's Name:	Gilbert Moreno	TAT starts the day received by the lab, if received by 4:30pm						HCL: HC	HNO ₃ : HN
PO:	1061121501	Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT		Thermometer ID:	TF-11-00					H ₃ PO ₄ : HP	
Samples Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	-0.7					NaHSO ₄ : NABIS	
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Temperature Reading:	1.21					Na ₂ S ₂ O ₃ : NaSO ₃	
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Corrected Temperature:	1.2					Zn Acetate+NaOH: Zn	
Total Containers:								NaOH+Ascorbic Acid: SAPC	
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont		Sample Comments	
FS22	S	4/27/22	0915	14'	Comp	1		Incident ID	
FS21	S	4/27/22	1050	14-15'	Comp	1		NRM2014147987	

Total 200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Cu	Co	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010 : 8RCRA		Sb		As	Ba	Be	Cd	Ca	Cr	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U	Hg: 1631 / 245.1 / 7470 / 7471											

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>Anna Byers</i>	<i>Anna Byers</i>	4/28/22 @ 0900	2 <i>Anna Byers</i>	<i>Anna Byers</i>	4/28/22 10:00
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2255-1

SDG Number: 03A1987005

Login Number: 2255

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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: 890-2255-1

SDG Number: 03A1987005

Login Number: 2255

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 04/29/22 10:53 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2261-1
Laboratory Sample Delivery Group: 03A1987005
Client Project/Site: North Brushy Draw 35-2H

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Anna Byers

A rectangular box containing a handwritten-style electronic signature in blue ink that reads "Brianna Teel".

Authorized for release by:
5/3/2022 7:53:43 AM
Brianna Teel, Project Manager
(432)704-5440
Brianna.Teel@et.eurofinsus.com
Designee for
Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Laboratory Job ID: 890-2261-1
SDG: 03A1987005

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	15
QC Sample Results	16
QC Association Summary	21
Lab Chronicle	25
Certification Summary	29
Method Summary	30
Sample Summary	31
Chain of Custody	32
Receipt Checklists	37

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
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
SQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Job ID: 890-2261-1

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-2261-1
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Receipt
The samples were received on 4/28/2022 4:18 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 7.8°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 Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW05

Lab Sample ID: 890-2261-1

Date Collected: 04/28/22 09:00

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

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		05/02/22 08:00	05/02/22 13:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:26	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/02/22 08:00	05/02/22 13:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:26	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/02/22 08:00	05/02/22 13:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	05/02/22 08:00	05/02/22 13:26	1
1,4-Difluorobenzene (Surr)	90		70 - 130	05/02/22 08:00	05/02/22 13:26	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	50.0		mg/Kg		05/02/22 08:30	05/02/22 12:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 12:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 12:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	05/02/22 08:30	05/02/22 12:12	1
o-Terphenyl	118		70 - 130	05/02/22 08:30	05/02/22 12:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	267		4.97		mg/Kg			05/02/22 13:34	1

Client Sample ID: SW06

Lab Sample ID: 890-2261-2

Date Collected: 04/28/22 09:05

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

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		05/02/22 08:00	05/02/22 13:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:46	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/02/22 08:00	05/02/22 13:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:46	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/02/22 08:00	05/02/22 13:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	05/02/22 08:00	05/02/22 13:46	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW06

Lab Sample ID: 890-2261-2

Date Collected: 04/28/22 09:05

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	05/02/22 08:00	05/02/22 13:46	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			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 13:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 13:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 13:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				05/02/22 08:30	05/02/22 13:18	1
o-Terphenyl	98		70 - 130				05/02/22 08:30	05/02/22 13:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	223		4.99		mg/Kg			05/02/22 13:40	1

Client Sample ID: SW07

Lab Sample ID: 890-2261-3

Date Collected: 04/28/22 09:15

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

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		05/02/22 08:00	05/02/22 14:07	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/02/22 08:00	05/02/22 14:07	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/02/22 08:00	05/02/22 14:07	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/02/22 08:00	05/02/22 14:07	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/02/22 08:00	05/02/22 14:07	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/02/22 08:00	05/02/22 14:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	05/02/22 08:00	05/02/22 14:07	1
1,4-Difluorobenzene (Surr)	91		70 - 130	05/02/22 08:00	05/02/22 14:07	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			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW07

Lab Sample ID: 890-2261-3

Date Collected: 04/28/22 09:15

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 13:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 13:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 13:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				05/02/22 08:30	05/02/22 13:39	1
o-Terphenyl	108		70 - 130				05/02/22 08:30	05/02/22 13:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	246		5.00		mg/Kg			05/02/22 13:59	1

Client Sample ID: SW08

Lab Sample ID: 890-2261-4

Date Collected: 04/28/22 09:20

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

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		05/02/22 08:00	05/02/22 14:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 14:27	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 14:27	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/02/22 08:00	05/02/22 14:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 14:27	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/02/22 08:00	05/02/22 14:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130				05/02/22 08:00	05/02/22 14:27	1
1,4-Difluorobenzene (Surr)	87		70 - 130				05/02/22 08:00	05/02/22 14:27	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			05/02/22 21:55	1

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		mg/Kg			05/02/22 21:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 14:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 14:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 14:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130				05/02/22 08:30	05/02/22 14:01	1
o-Terphenyl	100		70 - 130				05/02/22 08:30	05/02/22 14:01	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW08

Lab Sample ID: 890-2261-4

Date Collected: 04/28/22 09:20

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	207		4.95		mg/Kg			05/02/22 14:06	1

Client Sample ID: SW09

Lab Sample ID: 890-2261-5

Date Collected: 04/28/22 09:25

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 14:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 14:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 14:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/02/22 08:00	05/02/22 14:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 14:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/02/22 08:00	05/02/22 14:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				05/02/22 08:00	05/02/22 14:48	1
1,4-Difluorobenzene (Surr)	90		70 - 130				05/02/22 08:00	05/02/22 14:48	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 14:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 14:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 14:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				05/02/22 08:30	05/02/22 14:23	1
o-Terphenyl	110		70 - 130				05/02/22 08:30	05/02/22 14:23	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	167		5.00		mg/Kg			05/02/22 14:25	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW10

Lab Sample ID: 890-2261-6

Date Collected: 04/28/22 09:30

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

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		05/02/22 08:00	05/02/22 15:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 15:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 15:08	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/02/22 08:00	05/02/22 15:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 15:08	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/02/22 08:00	05/02/22 15:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	05/02/22 08:00	05/02/22 15:08	1
1,4-Difluorobenzene (Surr)	91		70 - 130	05/02/22 08:00	05/02/22 15:08	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			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 14:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 14:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 14:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	05/02/22 08:30	05/02/22 14:45	1
o-Terphenyl	114		70 - 130	05/02/22 08:30	05/02/22 14:45	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	202		5.05		mg/Kg			05/02/22 14:31	1

Client Sample ID: SW11

Lab Sample ID: 890-2261-7

Date Collected: 04/28/22 09:45

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 15:29	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 15:29	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 15:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/02/22 08:00	05/02/22 15:29	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 15:29	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/02/22 08:00	05/02/22 15:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	05/02/22 08:00	05/02/22 15:29	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW11

Lab Sample ID: 890-2261-7

Date Collected: 04/28/22 09:45

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	85		70 - 130	05/02/22 08:00	05/02/22 15:29	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 15:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 15:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 15:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				05/02/22 08:30	05/02/22 15:07	1
o-Terphenyl	99		70 - 130				05/02/22 08:30	05/02/22 15:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	309		4.99		mg/Kg			05/02/22 14:37	1

Client Sample ID: SW12

Lab Sample ID: 890-2261-8

Date Collected: 04/28/22 09:50

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

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		05/02/22 08:00	05/02/22 15:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 15:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 15:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/02/22 08:00	05/02/22 15:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 15:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/02/22 08:00	05/02/22 15:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	05/02/22 08:00	05/02/22 15:49	1
1,4-Difluorobenzene (Surr)	88		70 - 130	05/02/22 08:00	05/02/22 15:49	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW12

Lab Sample ID: 890-2261-8

Date Collected: 04/28/22 09:50

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 15:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 15:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 15:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				05/02/22 08:30	05/02/22 15:28	1
o-Terphenyl	99		70 - 130				05/02/22 08:30	05/02/22 15:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	308		4.98		mg/Kg			05/02/22 14:44	1

Client Sample ID: SW13

Lab Sample ID: 890-2261-9

Date Collected: 04/28/22 09:55

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

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		05/02/22 08:00	05/02/22 16:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 16:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 16:10	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/02/22 08:00	05/02/22 16:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 16:10	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/02/22 08:00	05/02/22 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				05/02/22 08:00	05/02/22 16:10	1
1,4-Difluorobenzene (Surr)	88		70 - 130				05/02/22 08:00	05/02/22 16:10	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/02/22 21:55	1

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		mg/Kg			05/02/22 21:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 15:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 15:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 15:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130				05/02/22 08:30	05/02/22 15:50	1
o-Terphenyl	110		70 - 130				05/02/22 08:30	05/02/22 15:50	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW13

Lab Sample ID: 890-2261-9

Date Collected: 04/28/22 09:55

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	162		4.99		mg/Kg			05/02/22 14:50	1

Client Sample ID: SW14

Lab Sample ID: 890-2261-10

Date Collected: 04/28/22 10:00

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 0 - 14

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		05/02/22 08:00	05/02/22 16:30	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/02/22 08:00	05/02/22 16:30	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/02/22 08:00	05/02/22 16:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/02/22 08:00	05/02/22 16:30	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/02/22 08:00	05/02/22 16:30	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/02/22 08:00	05/02/22 16:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130				05/02/22 08:00	05/02/22 16:30	1
1,4-Difluorobenzene (Surr)	90		70 - 130				05/02/22 08:00	05/02/22 16:30	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			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 16:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 16:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 16:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130				05/02/22 08:30	05/02/22 16:12	1
o-Terphenyl	109		70 - 130				05/02/22 08:30	05/02/22 16:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	290		4.95		mg/Kg			05/02/22 14:56	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: FS23

Lab Sample ID: 890-2261-11

Date Collected: 04/28/22 09:35

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 3 - 14

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/02/22 08:00	05/02/22 18:09	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/02/22 08:00	05/02/22 18:09	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/02/22 08:00	05/02/22 18:09	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/02/22 08:00	05/02/22 18:09	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/02/22 08:00	05/02/22 18:09	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/02/22 08:00	05/02/22 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	05/02/22 08:00	05/02/22 18:09	1
1,4-Difluorobenzene (Surr)	91		70 - 130	05/02/22 08:00	05/02/22 18:09	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/02/22 21:55	1

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		mg/Kg			05/02/22 21:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 16:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 16:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/02/22 08:30	05/02/22 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	05/02/22 08:30	05/02/22 16:55	1
o-Terphenyl	108		70 - 130	05/02/22 08:30	05/02/22 16:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	87.6		4.95		mg/Kg			05/02/22 15:03	1

Client Sample ID: FS24

Lab Sample ID: 890-2261-12

Date Collected: 04/28/22 09:40

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 3 - 14

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		05/02/22 08:00	05/02/22 18:29	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/02/22 08:00	05/02/22 18:29	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/02/22 08:00	05/02/22 18:29	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/02/22 08:00	05/02/22 18:29	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/02/22 08:00	05/02/22 18:29	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/02/22 08:00	05/02/22 18:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	05/02/22 08:00	05/02/22 18:29	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: FS24

Lab Sample ID: 890-2261-12

Date Collected: 04/28/22 09:40

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 3 - 14

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130	05/02/22 08:00	05/02/22 18:29	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			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 17:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 17:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 17:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130				05/02/22 08:30	05/02/22 17:17	1
o-Terphenyl	106		70 - 130				05/02/22 08:30	05/02/22 17:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	115		4.97		mg/Kg			05/02/22 12:50	1

Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2261-1	SW05	102	90
890-2261-1 MS	SW05	109	96
890-2261-1 MSD	SW05	112	95
890-2261-2	SW06	107	88
890-2261-3	SW07	106	91
890-2261-4	SW08	105	87
890-2261-5	SW09	106	90
890-2261-6	SW10	104	91
890-2261-7	SW11	101	85
890-2261-8	SW12	100	88
890-2261-9	SW13	106	88
890-2261-10	SW14	102	90
890-2261-11	FS23	108	91
890-2261-12	FS24	104	91
LCS 880-24437/1-A	Lab Control Sample	110	98
LCSD 880-24437/2-A	Lab Control Sample Dup	109	96
MB 880-24437/5-B	Method Blank	99	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2261-1	SW05	116	118
890-2261-1 MS	SW05	102	91
890-2261-1 MSD	SW05	100	90
890-2261-2	SW06	99	98
890-2261-3	SW07	108	108
890-2261-4	SW08	100	100
890-2261-5	SW09	108	110
890-2261-6	SW10	112	114
890-2261-7	SW11	99	99
890-2261-8	SW12	99	99
890-2261-9	SW13	107	110
890-2261-10	SW14	109	109
890-2261-11	FS23	108	108
890-2261-12	FS24	105	106
LCS 880-24605/2-A	Lab Control Sample	104	96
LCSD 880-24605/3-A	Lab Control Sample Dup	99	93
MB 880-24605/1-A	Method Blank	93	94
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24437/5-B

Matrix: Solid

Analysis Batch: 24636

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24437

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/02/22 08:00	05/02/22 13:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/02/22 08:00	05/02/22 13:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	05/02/22 08:00	05/02/22 13:04	1
1,4-Difluorobenzene (Surr)	90		70 - 130	05/02/22 08:00	05/02/22 13:04	1

Lab Sample ID: LCS 880-24437/1-A

Matrix: Solid

Analysis Batch: 24636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24437

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08579		mg/Kg		86	70 - 130
Toluene	0.100	0.09000		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.09801		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	0.200	0.1980		mg/Kg		99	70 - 130
o-Xylene	0.100	0.1002		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-24437/2-A

Matrix: Solid

Analysis Batch: 24636

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24437

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.08259		mg/Kg		83	70 - 130	4	35
Toluene	0.100	0.08659		mg/Kg		87	70 - 130	4	35
Ethylbenzene	0.100	0.09481		mg/Kg		95	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1917		mg/Kg		96	70 - 130	3	35
o-Xylene	0.100	0.09736		mg/Kg		97	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-2261-1 MS

Matrix: Solid

Analysis Batch: 24636

Client Sample ID: SW05

Prep Type: Total/NA

Prep Batch: 24437

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0998	0.07878		mg/Kg		79	70 - 130
Toluene	<0.00200	U	0.0998	0.08341		mg/Kg		84	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

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

Lab Sample ID: 890-2261-1 MS

Matrix: Solid

Analysis Batch: 24636

Client Sample ID: SW05

Prep Type: Total/NA

Prep Batch: 24437

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0998	0.09128		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1841		mg/Kg		92	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09273		mg/Kg		93	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-2261-1 MSD

Matrix: Solid

Analysis Batch: 24636

Client Sample ID: SW05

Prep Type: Total/NA

Prep Batch: 24437

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.07642		mg/Kg		77	70 - 130	3	35
Toluene	<0.00200	U	0.0996	0.08325		mg/Kg		84	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.0996	0.09260		mg/Kg		93	70 - 130	1	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1875		mg/Kg		94	70 - 130	2	35
o-Xylene	<0.00200	U	0.0996	0.09430		mg/Kg		95	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

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

Lab Sample ID: MB 880-24605/1-A

Matrix: Solid

Analysis Batch: 24615

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24605

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 11:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 11:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 11:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	05/02/22 08:30	05/02/22 11:06	1
o-Terphenyl	94		70 - 130	05/02/22 08:30	05/02/22 11:06	1

Lab Sample ID: LCS 880-24605/2-A

Matrix: Solid

Analysis Batch: 24615

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24605

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1078		mg/Kg		108	70 - 130
Diesel Range Organics (Over C10-C28)	1000	895.7		mg/Kg		90	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

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

Lab Sample ID: LCS 880-24605/2-A
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24605

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-24605/3-A
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24605

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1013		mg/Kg		101	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	840.3		mg/Kg		84	70 - 130	6	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-2261-1 MS
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: SW05
Prep Type: Total/NA
Prep Batch: 24605

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1411	F1	mg/Kg		141	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1028		mg/Kg		103	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 890-2261-1 MSD
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: SW05
Prep Type: Total/NA
Prep Batch: 24605

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1401	F1	mg/Kg		140	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1000		mg/Kg		100	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	90		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24340/1-A

Matrix: Solid

Analysis Batch: 24622

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/02/22 08:33	1

Lab Sample ID: LCS 880-24340/2-A

Matrix: Solid

Analysis Batch: 24622

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	237.4		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-24340/3-A

Matrix: Solid

Analysis Batch: 24622

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	236.2		mg/Kg		94	90 - 110	1	20

Lab Sample ID: 880-14140-B-13-B MS

Matrix: Solid

Analysis Batch: 24622

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	3510		1250	4799		mg/Kg		103	90 - 110

Lab Sample ID: 880-14140-B-13-C MSD

Matrix: Solid

Analysis Batch: 24622

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3510		1250	4786		mg/Kg		102	90 - 110	0	20

Lab Sample ID: MB 880-24626/1-A

Matrix: Solid

Analysis Batch: 24637

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/02/22 11:52	1

Lab Sample ID: LCS 880-24626/2-A

Matrix: Solid

Analysis Batch: 24637

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	232.5		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-24626/3-A

Matrix: Solid

Analysis Batch: 24637

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	251.6		mg/Kg		101	90 - 110	8	20

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-2261-2 MS										Client Sample ID: SW06		
Matrix: Solid										Prep Type: Soluble		
Analysis Batch: 24637												
	Sample	Sample	Spike	MS	MS				%Rec			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chloride	223		250	494.5		mg/Kg		109	90 - 110			

Lab Sample ID: 890-2261-2 MSD										Client Sample ID: SW06		
Matrix: Solid										Prep Type: Soluble		
Analysis Batch: 24637												
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	223		250	477.2		mg/Kg		102	90 - 110	4	20	

QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

GC VOA

Prep Batch: 24437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-1	SW05	Total/NA	Solid	5035	
890-2261-2	SW06	Total/NA	Solid	5035	
890-2261-3	SW07	Total/NA	Solid	5035	
890-2261-4	SW08	Total/NA	Solid	5035	
890-2261-5	SW09	Total/NA	Solid	5035	
890-2261-6	SW10	Total/NA	Solid	5035	
890-2261-7	SW11	Total/NA	Solid	5035	
890-2261-8	SW12	Total/NA	Solid	5035	
890-2261-9	SW13	Total/NA	Solid	5035	
890-2261-10	SW14	Total/NA	Solid	5035	
890-2261-11	FS23	Total/NA	Solid	5035	
890-2261-12	FS24	Total/NA	Solid	5035	
MB 880-24437/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-24437/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24437/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2261-1 MS	SW05	Total/NA	Solid	5035	
890-2261-1 MSD	SW05	Total/NA	Solid	5035	

Analysis Batch: 24636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-1	SW05	Total/NA	Solid	8021B	24437
890-2261-2	SW06	Total/NA	Solid	8021B	24437
890-2261-3	SW07	Total/NA	Solid	8021B	24437
890-2261-4	SW08	Total/NA	Solid	8021B	24437
890-2261-5	SW09	Total/NA	Solid	8021B	24437
890-2261-6	SW10	Total/NA	Solid	8021B	24437
890-2261-7	SW11	Total/NA	Solid	8021B	24437
890-2261-8	SW12	Total/NA	Solid	8021B	24437
890-2261-9	SW13	Total/NA	Solid	8021B	24437
890-2261-10	SW14	Total/NA	Solid	8021B	24437
890-2261-11	FS23	Total/NA	Solid	8021B	24437
890-2261-12	FS24	Total/NA	Solid	8021B	24437
MB 880-24437/5-B	Method Blank	Total/NA	Solid	8021B	24437
LCS 880-24437/1-A	Lab Control Sample	Total/NA	Solid	8021B	24437
LCSD 880-24437/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24437
890-2261-1 MS	SW05	Total/NA	Solid	8021B	24437
890-2261-1 MSD	SW05	Total/NA	Solid	8021B	24437

Analysis Batch: 24693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-1	SW05	Total/NA	Solid	Total BTEX	
890-2261-2	SW06	Total/NA	Solid	Total BTEX	
890-2261-3	SW07	Total/NA	Solid	Total BTEX	
890-2261-4	SW08	Total/NA	Solid	Total BTEX	
890-2261-5	SW09	Total/NA	Solid	Total BTEX	
890-2261-6	SW10	Total/NA	Solid	Total BTEX	
890-2261-7	SW11	Total/NA	Solid	Total BTEX	
890-2261-8	SW12	Total/NA	Solid	Total BTEX	
890-2261-9	SW13	Total/NA	Solid	Total BTEX	
890-2261-10	SW14	Total/NA	Solid	Total BTEX	
890-2261-11	FS23	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

GC VOA (Continued)

Analysis Batch: 24693 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-12	FS24	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-1	SW05	Total/NA	Solid	8015NM Prep	
890-2261-2	SW06	Total/NA	Solid	8015NM Prep	
890-2261-3	SW07	Total/NA	Solid	8015NM Prep	
890-2261-4	SW08	Total/NA	Solid	8015NM Prep	
890-2261-5	SW09	Total/NA	Solid	8015NM Prep	
890-2261-6	SW10	Total/NA	Solid	8015NM Prep	
890-2261-7	SW11	Total/NA	Solid	8015NM Prep	
890-2261-8	SW12	Total/NA	Solid	8015NM Prep	
890-2261-9	SW13	Total/NA	Solid	8015NM Prep	
890-2261-10	SW14	Total/NA	Solid	8015NM Prep	
890-2261-11	FS23	Total/NA	Solid	8015NM Prep	
890-2261-12	FS24	Total/NA	Solid	8015NM Prep	
MB 880-24605/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24605/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24605/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2261-1 MS	SW05	Total/NA	Solid	8015NM Prep	
890-2261-1 MSD	SW05	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-1	SW05	Total/NA	Solid	8015B NM	24605
890-2261-2	SW06	Total/NA	Solid	8015B NM	24605
890-2261-3	SW07	Total/NA	Solid	8015B NM	24605
890-2261-4	SW08	Total/NA	Solid	8015B NM	24605
890-2261-5	SW09	Total/NA	Solid	8015B NM	24605
890-2261-6	SW10	Total/NA	Solid	8015B NM	24605
890-2261-7	SW11	Total/NA	Solid	8015B NM	24605
890-2261-8	SW12	Total/NA	Solid	8015B NM	24605
890-2261-9	SW13	Total/NA	Solid	8015B NM	24605
890-2261-10	SW14	Total/NA	Solid	8015B NM	24605
890-2261-11	FS23	Total/NA	Solid	8015B NM	24605
890-2261-12	FS24	Total/NA	Solid	8015B NM	24605
MB 880-24605/1-A	Method Blank	Total/NA	Solid	8015B NM	24605
LCS 880-24605/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24605
LCSD 880-24605/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24605
890-2261-1 MS	SW05	Total/NA	Solid	8015B NM	24605
890-2261-1 MSD	SW05	Total/NA	Solid	8015B NM	24605

Analysis Batch: 24695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-1	SW05	Total/NA	Solid	8015 NM	
890-2261-2	SW06	Total/NA	Solid	8015 NM	
890-2261-3	SW07	Total/NA	Solid	8015 NM	
890-2261-4	SW08	Total/NA	Solid	8015 NM	
890-2261-5	SW09	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

GC Semi VOA (Continued)

Analysis Batch: 24695 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-6	SW10	Total/NA	Solid	8015 NM	
890-2261-7	SW11	Total/NA	Solid	8015 NM	
890-2261-8	SW12	Total/NA	Solid	8015 NM	
890-2261-9	SW13	Total/NA	Solid	8015 NM	
890-2261-10	SW14	Total/NA	Solid	8015 NM	
890-2261-11	FS23	Total/NA	Solid	8015 NM	
890-2261-12	FS24	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 24340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-12	FS24	Soluble	Solid	DI Leach	
MB 880-24340/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24340/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24340/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-14140-B-13-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-14140-B-13-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-12	FS24	Soluble	Solid	300.0	24340
MB 880-24340/1-A	Method Blank	Soluble	Solid	300.0	24340
LCS 880-24340/2-A	Lab Control Sample	Soluble	Solid	300.0	24340
LCSD 880-24340/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24340
880-14140-B-13-B MS	Matrix Spike	Soluble	Solid	300.0	24340
880-14140-B-13-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24340

Leach Batch: 24626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-1	SW05	Soluble	Solid	DI Leach	
890-2261-2	SW06	Soluble	Solid	DI Leach	
890-2261-3	SW07	Soluble	Solid	DI Leach	
890-2261-4	SW08	Soluble	Solid	DI Leach	
890-2261-5	SW09	Soluble	Solid	DI Leach	
890-2261-6	SW10	Soluble	Solid	DI Leach	
890-2261-7	SW11	Soluble	Solid	DI Leach	
890-2261-8	SW12	Soluble	Solid	DI Leach	
890-2261-9	SW13	Soluble	Solid	DI Leach	
890-2261-10	SW14	Soluble	Solid	DI Leach	
890-2261-11	FS23	Soluble	Solid	DI Leach	
MB 880-24626/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24626/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24626/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2261-2 MS	SW06	Soluble	Solid	DI Leach	
890-2261-2 MSD	SW06	Soluble	Solid	DI Leach	

Analysis Batch: 24637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-1	SW05	Soluble	Solid	300.0	24626
890-2261-2	SW06	Soluble	Solid	300.0	24626

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

HPLC/IC (Continued)

Analysis Batch: 24637 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-3	SW07	Soluble	Solid	300.0	24626
890-2261-4	SW08	Soluble	Solid	300.0	24626
890-2261-5	SW09	Soluble	Solid	300.0	24626
890-2261-6	SW10	Soluble	Solid	300.0	24626
890-2261-7	SW11	Soluble	Solid	300.0	24626
890-2261-8	SW12	Soluble	Solid	300.0	24626
890-2261-9	SW13	Soluble	Solid	300.0	24626
890-2261-10	SW14	Soluble	Solid	300.0	24626
890-2261-11	FS23	Soluble	Solid	300.0	24626
MB 880-24626/1-A	Method Blank	Soluble	Solid	300.0	24626
LCS 880-24626/2-A	Lab Control Sample	Soluble	Solid	300.0	24626
LCSD 880-24626/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24626
890-2261-2 MS	SW06	Soluble	Solid	300.0	24626
890-2261-2 MSD	SW06	Soluble	Solid	300.0	24626

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW05

Lab Sample ID: 890-2261-1

Date Collected: 04/28/22 09:00

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 13:26	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 12:12	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 13:34	CH	XEN MID

Client Sample ID: SW06

Lab Sample ID: 890-2261-2

Date Collected: 04/28/22 09:05

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 13:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 13:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 13:40	CH	XEN MID

Client Sample ID: SW07

Lab Sample ID: 890-2261-3

Date Collected: 04/28/22 09:15

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 14:07	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 13:39	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 13:59	CH	XEN MID

Client Sample ID: SW08

Lab Sample ID: 890-2261-4

Date Collected: 04/28/22 09:20

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 14:27	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID

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Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW08

Lab Sample ID: 890-2261-4

Date Collected: 04/28/22 09:20

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 14:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 14:06	CH	XEN MID

Client Sample ID: SW09

Lab Sample ID: 890-2261-5

Date Collected: 04/28/22 09:25

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 14:48	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 14:23	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 14:25	CH	XEN MID

Client Sample ID: SW10

Lab Sample ID: 890-2261-6

Date Collected: 04/28/22 09:30

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 15:08	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 14:45	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 14:31	CH	XEN MID

Client Sample ID: SW11

Lab Sample ID: 890-2261-7

Date Collected: 04/28/22 09:45

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 15:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 15:07	AJ	XEN MID

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Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: SW11

Lab Sample ID: 890-2261-7

Date Collected: 04/28/22 09:45

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 14:37	CH	XEN MID

Client Sample ID: SW12

Lab Sample ID: 890-2261-8

Date Collected: 04/28/22 09:50

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 15:49	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 15:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 14:44	CH	XEN MID

Client Sample ID: SW13

Lab Sample ID: 890-2261-9

Date Collected: 04/28/22 09:55

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 16:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 15:50	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 14:50	CH	XEN MID

Client Sample ID: SW14

Lab Sample ID: 890-2261-10

Date Collected: 04/28/22 10:00

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 16:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 16:12	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 14:56	CH	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Client Sample ID: FS23

Lab Sample ID: 890-2261-11

Date Collected: 04/28/22 09:35

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 18:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 16:55	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24626	05/02/22 09:25	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	24637	05/02/22 15:03	CH	XEN MID

Client Sample ID: FS24

Lab Sample ID: 890-2261-12

Date Collected: 04/28/22 09:40

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 18:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24693	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24695	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 17:17	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24340	05/02/22 09:23	SC	XEN MID
Soluble	Analysis	300.0		1			24622	05/02/22 12:50	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
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

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

Sample Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-1
SDG: 03A1987005

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2261-1	SW05	Solid	04/28/22 09:00	04/28/22 16:18	0 - 14
890-2261-2	SW06	Solid	04/28/22 09:05	04/28/22 16:18	0 - 14
890-2261-3	SW07	Solid	04/28/22 09:15	04/28/22 16:18	0 - 14
890-2261-4	SW08	Solid	04/28/22 09:20	04/28/22 16:18	0 - 14
890-2261-5	SW09	Solid	04/28/22 09:25	04/28/22 16:18	0 - 14
890-2261-6	SW10	Solid	04/28/22 09:30	04/28/22 16:18	0 - 14
890-2261-7	SW11	Solid	04/28/22 09:45	04/28/22 16:18	0 - 14
890-2261-8	SW12	Solid	04/28/22 09:50	04/28/22 16:18	0 - 14
890-2261-9	SW13	Solid	04/28/22 09:55	04/28/22 16:18	0 - 14
890-2261-10	SW14	Solid	04/28/22 10:00	04/28/22 16:18	0 - 14
890-2261-11	FS23	Solid	04/28/22 09:35	04/28/22 16:18	3 - 14
890-2261-12	FS24	Solid	04/28/22 09:40	04/28/22 16:18	3 - 14

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

Environment Testing

Xenco

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	ANNA BYERS	Bill to: (if different)	JIM RABY
Company Name:	ENSOLUM	Company Name:	WPC
Address:	3122 NATIONAL PARKS HWY	Address:	5315 BUENA VISTA DR.
City, State ZIP:	CARLSBAD, NM 88220	City, State ZIP:	CARLSBAD, NM 88220
Phone:	575-200-6754	Email:	ABYERS@ENSOLUM.COM

Project Name:	NORTH BEUSHY DRW 35-2H	Turn Around	
Project Number:	03A1987 005	<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush	2HRS
Project Location:	EDDY COUNTY, NM	Due Date:	
Sampler's Name:	GILBERT MORENO	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	1061121501		

SAMPLE RECEIPT		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Samples Received Intact:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID:	WIM-007	
Cooler Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	-0.2	
Sample Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading:	8.0	
Total Containers:			Corrected Temperature:	7.8	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (FEET)	Grab/Comp	# of Cont
SW 05	S	4-20-22	09:00	0-14"	Comp	1
SW 06			09:05			
SW 07			09:15			
SW 08			09:20			
SW 09			09:25			
SW 10			09:30			
SW 11			09:45			
SW 12			09:50			
SW 13			09:55			
SW 14			10:00			

ANALYSIS REQUEST	Pres. Code
TPH (EPA 8015 MOD)	
BTEX (EPA 8021 B)	
CHLORIDE (EPA 300.0)	

ANALYSIS REQUEST	Preservative Codes
	None: NO
	DI Water: H ₂ O
	Cool: Cool
	MeOH: Me
	HCL: HC
	HNO ₃ : HN
	H ₂ SO ₄ : H ₂
	H ₃ PO ₄ : HP
	NaHSO ₄ : NABIS
	Na ₂ S ₂ O ₃ : NaSO ₃
	Zn Acetate+NaOH: Zn
	NaOH+Ascorbic Acid: SAPC

Sample Comments	Sample Comments
INCIDENT ID	
NRM 2014147987	

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471	

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Anna Byers</i>	<i>Jim Raby</i>	4-28-22 14:18			

Revised Date: 08/25/2020 Rev. 2020.2

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



Environment Testing

Xenco

Work Order No:

22042021
www.xenco.com Page 10

Work Order Comments

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

State of Project: ☐ Level II ☐ Level III ☐ Level IV ☐

Reporting: ☐ Level II ☐ Level III ☐ TRRP ☐ Level IV ☐

Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

Project Manager: ANITA BYERS

Company Name: ENSOLVM

Address: 3122 NATIONAL PARKS HWY

City, State ZIP: CARLSBAD, NM 88220

Phone: 575 206-6754

Bill to: (if different) JIM RALEY

Company Name: WPK

Address: 5315 BUENA VISTA DR.

City, State ZIP: CARLSBAD, NM 88220

Email: ABYERS@ENSOLVM.COM

Project Name: NORTH BRUSHY DRAW 35-2H

Project Number: 03A 1987 005

Project Location: EDDY COUNTY, NM

Sampler's Name: GILBERT MORENO

P.O. #: 1061121501

Turn Around: ☐ Routine ☒ Rush 24HR

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

Temp Blank: Yes No

Thermometer: Yes No

Correction Factor: Yes No

Temperature Reading: Yes No

Corrected Temperature: Yes No

Wet Ice: Yes No

Parameters: TPH (EPA 801.1), GTEX (EPA 801.2), CHLORIDE (EPA 300.0)

Sample Identification: FS 23, FS 24, FS 25, FS 26

Matrix: S, S, S, S

Date Sampled: 4-28-22, 4-28-22, 4-28-22, 4-28-22

Time Sampled: 09:35, 09:40, 12:00, 14:00

Depth: 0-14", 3-14"

Grab/Comp: C, C, C, C

of Cont: 1, 1, 1, 1

Preservative Codes: None: NO, DI Water: H₂O, Cool: Cool, MeOH: Me, HCL: HC, HNO₃: HN, H₂SO₄: H₂, NaOH: Na, H₃PO₄: HP, NaHSO₄: NABIS, Na₂S₂O₅: NaSO₃, Zn Acetate+NaOH: Zn, NaOH+Ascorbic Acid: SACP

Sample Comments: INVENT ID, NRM2014147987

Total 2007 / 6010 2008 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

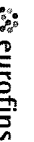
Date/Time: 4-28-22 10:18

Revised Date 08/25/2020 Rev. 20202

Eurofins Carlsbad

1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing

[illegible]

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- 13
- 14

Eurofins Carlsbad

1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing
America

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No
Client Contact		Phone:	Kramer, Jessica		890-736-1
Shipping/Receiving			E-Mail: Jessica.Kramer@el.eurofins.com	State of Origin: New Mexico	Page: 1 of 2
Company		Eurofins Environment Testing South Center		Job #:	
Address		1211 W. Florida Ave.	Due Date Requested	890-2261-1	
City		Midland	TAT Requested (days):	Preservation Codes	
State Zip:		TX, 79701		A. HCL B. NaOH C. Zn Acetate D. Nitric Acid E. NaHSO4 F. MeOH G. Anchor H. Ascorbic Acid I. Ice J. DI Water K. EDTA L. EDA M. Hexane N. None O. AsNaO2 P. Na2O4S Q. Na2SO3 R. Na2S2O3 S. H2SO4 T. TSP Dodecylate U. Acetone V. MCAA W. pH 4.5 Z. other (specify)	
Phone		432-704-5440 (Tel)	PO #:		
Email			WO #:		
Project Name		North Brushy Draw 35-2H	Project #:		
Site			SSOW#:		
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=washbottle, BT=Tissue, A=Air)
SW05 (890-2261-1)		4/28/22	09 00		Solid
SW06 (890-2261-2)		4/28/22	09 05		Solid
SW07 (890-2261-3)		4/28/22	09 15		Solid
SW08 (890-2261-4)		4/28/22	09 20		Solid
SW09 (890-2261-5)		4/28/22	09 25		Solid
SW10 (890-2261-6)		4/28/22	09 30		Solid
SW11 (890-2261-7)		4/28/22	09 45		Solid
SW12 (890-2261-8)		4/28/22	09 50		Solid
SW13 (890-2261-9)		4/28/22	09 55		Solid
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Center, LLC places the ownership of method, analyte & accreditation compliance upon our subcontracted laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/assessments, being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Center, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Center, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to Eurofins Environment Testing South Center, LLC.					
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Unconfirmed		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months			
Deliverable Requested I II III IV, Other (specify)		Primary Deliverable Rank 2		Special Instructions/QC Requirements	
Empty Kit Relinquished by:		Date	Time	Method of Shipment:	
Relinquished by: <i>Qua by 4-29-22</i>		Date/Time	Company	Received by: <i>[Signature]</i>	Date/Time
Relinquished by:		Date/Time	Company	Received by:	Date/Time
Relinquished by:		Date/Time	Company	Received by:	Date/Time
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:	

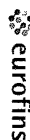
Eurofins Carlsbad

1089 N Canal St.

Carlsbad NM 88220

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

Chain of Custody Record



**Environment Testing
America**

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2261-1

SDG Number: 03A1987005

Login Number: 2261

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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: 890-2261-1

SDG Number: 03A1987005

Login Number: 2261

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 05/02/22 08:06 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2261-2

Laboratory Sample Delivery Group: 03A1987005

Client Project/Site: North Brushy Draw 35-2H

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Anna Byers

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
5/10/2022 6:28:08 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

LINKS

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results through

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

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

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Laboratory Job ID: 890-2261-2
SDG: 03A1987005

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	23

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

Job ID: 890-2261-2

Laboratory: Eurofins Carlsbad

Narrative	
	Job Narrative 890-2261-2

Receipt

The samples were received on 4/28/2022 4:18 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 7.8°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 880-24652 and analytical batch 880-24754 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

Client Sample ID: FS25

Lab Sample ID: 890-2261-13

Date Collected: 04/28/22 12:00

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/09/22 11:44	05/10/22 16:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/09/22 11:44	05/10/22 16:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/09/22 11:44	05/10/22 16:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/09/22 11:44	05/10/22 16:35	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/09/22 11:44	05/10/22 16:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/09/22 11:44	05/10/22 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130	05/09/22 11:44	05/10/22 16:35	1
1,4-Difluorobenzene (Surr)	87		70 - 130	05/09/22 11:44	05/10/22 16:35	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/10/22 19:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 17:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 17:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	05/02/22 08:30	05/02/22 17:39	1
o-Terphenyl	112		70 - 130	05/02/22 08:30	05/02/22 17:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	458		4.97		mg/Kg			05/05/22 13:40	1

Client Sample ID: FS26

Lab Sample ID: 890-2261-14

Date Collected: 04/28/22 14:00

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/09/22 11:44	05/10/22 17:00	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/09/22 11:44	05/10/22 17:00	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/09/22 11:44	05/10/22 17:00	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/09/22 11:44	05/10/22 17:00	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/09/22 11:44	05/10/22 17:00	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/09/22 11:44	05/10/22 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130	05/09/22 11:44	05/10/22 17:00	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

Client Sample ID: FS26

Lab Sample ID: 890-2261-14

Date Collected: 04/28/22 14:00

Matrix: Solid

Date Received: 04/28/22 16:18

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	89		70 - 130	05/09/22 11:44	05/10/22 17:00	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/10/22 19:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 21:57	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/02/22 08:30	05/02/22 18:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 18:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				05/02/22 08:30	05/02/22 18:01	1
o-Terphenyl	107		70 - 130				05/02/22 08:30	05/02/22 18:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.3		4.95		mg/Kg			05/05/22 13:46	1

Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-14234-A-5-C MS	Matrix Spike	127	92
880-14234-A-5-D MSD	Matrix Spike Duplicate	124	93
890-2261-13	FS25	130	87
890-2261-14	FS26	136 S1+	89
LCS 880-25085/1-A	Lab Control Sample	117	91
LCSD 880-25085/2-A	Lab Control Sample Dup	121	95
MB 880-25085/5-A	Method Blank	86	78
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2261-13	FS25	110	112
890-2261-14	FS26	106	107
890-2261-A-1-F MS	Matrix Spike	102	91
890-2261-A-1-G MSD	Matrix Spike Duplicate	100	90
LCS 880-24605/2-A	Lab Control Sample	104	96
LCSD 880-24605/3-A	Lab Control Sample Dup	99	93
MB 880-24605/1-A	Method Blank	93	94
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-25085/5-A

Matrix: Solid

Analysis Batch: 25223

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 25085

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:44	05/10/22 14:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:44	05/10/22 14:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:44	05/10/22 14:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/09/22 11:44	05/10/22 14:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:44	05/10/22 14:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/09/22 11:44	05/10/22 14:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	05/09/22 11:44	05/10/22 14:03	1
1,4-Difluorobenzene (Surr)	78		70 - 130	05/09/22 11:44	05/10/22 14:03	1

Lab Sample ID: LCS 880-25085/1-A

Matrix: Solid

Analysis Batch: 25223

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 25085

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1106		mg/Kg		111	70 - 130
Toluene	0.100	0.1079		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1173		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	0.200	0.2409		mg/Kg		120	70 - 130
o-Xylene	0.100	0.1158		mg/Kg		116	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: LCSD 880-25085/2-A

Matrix: Solid

Analysis Batch: 25223

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 25085

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1100		mg/Kg		110	70 - 130	1	35
Toluene	0.100	0.1068		mg/Kg		107	70 - 130	1	35
Ethylbenzene	0.100	0.1202		mg/Kg		120	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2426		mg/Kg		121	70 - 130	1	35
o-Xylene	0.100	0.1208		mg/Kg		121	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-14234-A-5-C MS

Matrix: Solid

Analysis Batch: 25223

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 25085

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0996	0.09251		mg/Kg		93	70 - 130
Toluene	<0.00200	U	0.0996	0.09500		mg/Kg		95	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

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

Lab Sample ID: 880-14234-A-5-C MS

Matrix: Solid

Analysis Batch: 25223

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 25085

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0996	0.1036		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.2125		mg/Kg		107	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1063		mg/Kg		107	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	127		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 880-14234-A-5-D MSD

Matrix: Solid

Analysis Batch: 25223

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 25085

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0994	0.08813		mg/Kg		89	70 - 130	5	35
Toluene	<0.00200	U	0.0994	0.08995		mg/Kg		90	70 - 130	5	35
Ethylbenzene	<0.00200	U	0.0994	0.09674		mg/Kg		97	70 - 130	7	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1987		mg/Kg		100	70 - 130	7	35
o-Xylene	<0.00200	U	0.0994	0.1001		mg/Kg		101	70 - 130	6	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

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

Lab Sample ID: MB 880-24605/1-A

Matrix: Solid

Analysis Batch: 24615

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24605

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 11:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 11:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/22 08:30	05/02/22 11:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	05/02/22 08:30	05/02/22 11:06	1
o-Terphenyl	94		70 - 130	05/02/22 08:30	05/02/22 11:06	1

Lab Sample ID: LCS 880-24605/2-A

Matrix: Solid

Analysis Batch: 24615

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24605

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1078		mg/Kg		108	70 - 130
Diesel Range Organics (Over C10-C28)	1000	895.7		mg/Kg		90	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

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

Lab Sample ID: LCS 880-24605/2-A
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24605

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-24605/3-A
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24605

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1013		mg/Kg		101	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	840.3		mg/Kg		84	70 - 130	6	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-2261-A-1-F MS
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24605

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1411	F1	mg/Kg		141	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1028		mg/Kg		103	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 890-2261-A-1-G MSD
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24605

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1401	F1	mg/Kg		140	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1000		mg/Kg		100	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	90		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24652/1-A

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/04/22 15:29	1

Lab Sample ID: LCS 880-24652/2-A

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	272.5		mg/Kg		109	90 - 110

Lab Sample ID: LCSD 880-24652/3-A

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	253.2		mg/Kg		101	90 - 110	7	20

Lab Sample ID: 890-2256-A-6-B MS

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	606	F1	250	816.9	F1	mg/Kg		85	90 - 110

Lab Sample ID: 890-2256-A-6-C MSD

Matrix: Solid

Analysis Batch: 24754

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	606	F1	250	836.0		mg/Kg		92	90 - 110	2	20

QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

GC VOA

Prep Batch: 25085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-13	FS25	Total/NA	Solid	5035	
890-2261-14	FS26	Total/NA	Solid	5035	
MB 880-25085/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25085/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25085/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-14234-A-5-C MS	Matrix Spike	Total/NA	Solid	5035	
880-14234-A-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 25223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-13	FS25	Total/NA	Solid	8021B	25085
890-2261-14	FS26	Total/NA	Solid	8021B	25085
MB 880-25085/5-A	Method Blank	Total/NA	Solid	8021B	25085
LCS 880-25085/1-A	Lab Control Sample	Total/NA	Solid	8021B	25085
LCSD 880-25085/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25085
880-14234-A-5-C MS	Matrix Spike	Total/NA	Solid	8021B	25085
880-14234-A-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	25085

Analysis Batch: 25294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-13	FS25	Total/NA	Solid	Total BTEX	
890-2261-14	FS26	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-13	FS25	Total/NA	Solid	8015NM Prep	
890-2261-14	FS26	Total/NA	Solid	8015NM Prep	
MB 880-24605/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24605/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24605/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2261-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2261-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-13	FS25	Total/NA	Solid	8015B NM	24605
890-2261-14	FS26	Total/NA	Solid	8015B NM	24605
MB 880-24605/1-A	Method Blank	Total/NA	Solid	8015B NM	24605
LCS 880-24605/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24605
LCSD 880-24605/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24605
890-2261-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	24605
890-2261-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24605

Analysis Batch: 24696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-13	FS25	Total/NA	Solid	8015 NM	
890-2261-14	FS26	Total/NA	Solid	8015 NM	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

HPLC/IC

Leach Batch: 24652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-13	FS25	Soluble	Solid	DI Leach	
890-2261-14	FS26	Soluble	Solid	DI Leach	
MB 880-24652/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24652/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24652/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2256-A-6-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2256-A-6-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2261-13	FS25	Soluble	Solid	300.0	24652
890-2261-14	FS26	Soluble	Solid	300.0	24652
MB 880-24652/1-A	Method Blank	Soluble	Solid	300.0	24652
LCS 880-24652/2-A	Lab Control Sample	Soluble	Solid	300.0	24652
LCSD 880-24652/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24652
890-2256-A-6-B MS	Matrix Spike	Soluble	Solid	300.0	24652
890-2256-A-6-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24652

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

Client Sample ID: FS25

Lab Sample ID: 890-2261-13

Date Collected: 04/28/22 12:00

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	25085	05/09/22 11:44	MR	XEN MID
Total/NA	Analysis	8021B		1			25223	05/10/22 16:35	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25294	05/10/22 19:13	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24696	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 17:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24652	05/02/22 11:50	SC	XEN MID
Soluble	Analysis	300.0		1			24754	05/05/22 13:40	CH	XEN MID

Client Sample ID: FS26

Lab Sample ID: 890-2261-14

Date Collected: 04/28/22 14:00

Matrix: Solid

Date Received: 04/28/22 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	25085	05/09/22 11:44	MR	XEN MID
Total/NA	Analysis	8021B		1			25223	05/10/22 17:00	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25294	05/10/22 19:13	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24696	05/02/22 21:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24605	05/02/22 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 18:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24652	05/02/22 11:51	SC	XEN MID
Soluble	Analysis	300.0		1			24754	05/05/22 13:46	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
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

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

Sample Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2261-2
SDG: 03A1987005

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2261-13	FS25	Solid	04/28/22 12:00	04/28/22 16:18	1
890-2261-14	FS26	Solid	04/28/22 14:00	04/28/22 16:18	3

- 1
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- 7
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- 11
- 12
- 13
- 14

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

Environment Testing

Xenco

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	ANNA BYERS	Bill to: (if different)	JIM RABY
Company Name:	ENSOLUM	Company Name:	WPC
Address:	3122 NATIONAL PARKS HWY	Address:	5315 BUENA VISTA DR.
City, State ZIP:	CARLSBAD, NM 88220	City, State ZIP:	CARLSBAD, NM 88220
Phone:	575-200-6754	Email:	ABYERS@ENSOLUM.COM

Project Name:	NORTH BEUSHY DRW 35-2H	Turn Around	
Project Number:	03A1987 005	<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush	2HRS
Project Location:	EDDY COUNTY, NM	Due Date:	
Sampler's Name:	GILBERT MORENO	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	1061121501		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (FEET)	Grab/Comp	# of Cont
SW 05	S	4-20-22	09:00	0-14"	Comp	1
SW 06			09:05			
SW 07			09:15			
SW 08			09:20			
SW 09			09:25			
SW 10			09:30			
SW 11			09:45			
SW 12			09:50			
SW 13			09:55			
SW 14			10:00			

Total	200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471			

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Anna Byers</i>	<i>Jim Raby</i>	4.28.22 14:18

Revised Date: 08/25/2020 Rev. 2020.2



eurofins

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

Work Order No:

Page 2

Project Manager: ANITA BYERS		Bill to: (if different) JIM RALEY	
Company Name: ENSOLUN		Company Name: WPX	
Address: 3122 NATIONAL PARKS HWY		Address: 5315 BUENA VISTA DR.	
City, State ZIP: CARLSBAD NM 88220		City, State ZIP: CARLSBAD NM 88220	
Phone: 575 200-6954		Email: A.BYERS@ENSOLUN.COM	

Project Name: NORTH BRUSH DAM 35-2H		Turn Around	
Project Number: 034 1987 005		<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush 24HR Code	
Project Location: EDDY COUNTY, NM		Due Date:	
Sampler's Name: GILBERT MORENO		TAT starts the day received by the lab, if received by 4:30pm	
P.O. #: 1061121501			

SAMPLE RECEIPT		Temp Blank: Yes No		Wet Ice: Yes No	
Samples Received Intact:		Yes No		Thermometer:	
Cooler Custody Seals:		Yes No N/A		Correction Factor:	
Sample Custody Seals:		Yes No N/A		Temperature Reading:	
Total Containers:		Corrected Temperature:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont
FS23	S	4-28-22	09:35	0-14"	C	1
FS24	S	4-28-22	09:40	3-14"	C	1
FS25	S	4-28-22	12:00		C	1
FS26	S	4-28-22	14:00		C	1

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hg: 1631 / 245.1 / 7470 / 7471	

Relinquished by: (Signature) <i>Carly</i>		Received by: (Signature) <i>Jim Raley</i>		Date/Time 4-28-22 1618	
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Relinquished by: (Signature) <i>Carly</i>		Received by: (Signature)		Date/Time	
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Project Manager: ANITA BYERS		Bill to: (if different) JIM RALEY	
Company Name: ENSOLUN		Company Name: WPX	
Address: 3122 NATIONAL PARKS HWY		Address: 5315 BUENA VISTA DR.	
City, State ZIP: CARLSBAD NM 88220		City, State ZIP: CARLSBAD NM 88220	
Phone: 575 200-6954		Email: A.BYERS@ENSOLUN.COM	

Project Name: NORTH BRUSH DAM 35-2H		Turn Around	
Project Number: 034 1987 005		<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush 24HR Code	
Project Location: EDDY COUNTY, NM		Due Date:	
Sampler's Name: GILBERT MORENO		TAT starts the day received by the lab, if received by 4:30pm	
P.O. #: 1061121501			

SAMPLE RECEIPT		Temp Blank: Yes No		Wet Ice: Yes No	
Samples Received Intact:		Yes No		Thermometer:	
Cooler Custody Seals:		Yes No N/A		Correction Factor:	
Sample Custody Seals:		Yes No N/A		Temperature Reading:	
Total Containers:		Corrected Temperature:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont
FS23	S	4-28-22	09:35	0-14"	C	1
FS24	S	4-28-22	09:40	3-14"	C	1
FS25	S	4-28-22	12:00		C	1
FS26	S	4-28-22	14:00		C	1

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hg: 1631 / 245.1 / 7470 / 7471	

Relinquished by: (Signature) <i>Carly</i>		Received by: (Signature)		Date/Time	
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Relinquished by: (Signature)		Received by: (Signature)		Date/Time	
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Project Manager: ANITA BYERS		Bill to: (if different) JIM RALEY	
Company Name: ENSOLUN		Company Name: WPX	
Address: 3122 NATIONAL PARKS HWY		Address: 5315 BUENA VISTA DR.	
City, State ZIP: CARLSBAD NM 88220		City, State ZIP: CARLSBAD NM 88220	
Phone: 575 200-6954		Email: A.BYERS@ENSOLUN.COM	

Project Name: NORTH BRUSH DAM 35-2H		Turn Around	
Project Number: 034 1987 005		<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush 24HR Code	
Project Location: EDDY COUNTY, NM		Due Date:	
Sampler's Name: GILBERT MORENO		TAT starts the day received by the lab, if received by 4:30pm	
P.O. #: 1061121501			

SAMPLE RECEIPT		Temp Blank: Yes No		Wet Ice: Yes No	
Samples Received Intact:		Yes No		Thermometer:	
Cooler Custody Seals:		Yes No N/A		Correction Factor:	
Sample Custody Seals:		Yes No N/A		Temperature Reading:	
Total Containers:		Corrected Temperature:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont
FS23	S	4-28-22	09:35	0-14"	C	1
FS24	S	4-28-22	09:40	3-14"	C	1
FS25	S	4-28-22	12:00		C	1
FS26	S	4-28-22	14:00		C	1

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hg: 1631 / 245.1 / 7470 / 7471	

Relinquished by: (Signature) <i>Carly</i>		Received by: (Signature)		Date/Time	
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Relinquished by: (Signature)		Received by: (Signature)		Date/Time	
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Project Manager: ANITA BYERS		Bill to: (if different) JIM RALEY	
Company Name: ENSOLUN		Company Name: WPX	
Address: 3122 NATIONAL PARKS HWY		Address: 5315 BUENA VISTA DR.	
City, State ZIP: CARLSBAD NM 88220		City, State ZIP: CARLSBAD NM 88220	
Phone: 575 200-6954		Email: A.BYERS@ENSOLUN.COM	

Project Name: NORTH BRUSH DAM 35-2H		Turn Around	
Project Number: 034 1987 005		<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush 24HR Code	
Project Location: EDDY COUNTY, NM		Due Date:	
Sampler's Name: GILBERT MORENO		TAT starts the day received by the lab, if received by 4:30pm	

Eurofine Carlebad

1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



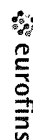
Environment Testing

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Eurofins Carlsbad

1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing America

Client Information (Sub Contract Lab)						Sampler	Lab PM	COC No		
Client Contact:						Kramer, Jessica	E-Mail	Page 736 1		
Shipping/Receiving						Jessica Kramer@et.eurofins.com	State of Origin:	Page 1 of 2		
Eurofins Environment Testing South Cent						NE/LAP - Texas	Accreditations Required (See note):	Job #.		
Address						Due Date Requested	Analysis Requested	Preservation Codes		
City						TAT Requested (days):	A HCL	M Hexane		
Midland						PO #	B NaOH	N - None		
State Zip:						WQ #	C Zn Acetate	O AsNaO2		
TX, 79701							D Nitric Acid	P Na2OAS		
Phone							E NaHSO4	Q Na2SO3		
432-704-5440(Tel)							F MeOH	R Na2S2O3		
Email							G Amchlor	S H2SO4		
							H Ascorbic Acid	T - TSP Dodecylhydrate		
Project Name						Project #	I Ice	U Acetone		
North Brushy Draw 35-2H						89000084	J DI Water	V - MCAA		
Site						SSOW#:	K EDTA	W pH 4-5		
							L EDA	Z other (specify)		
								Other		
Sample Identification - Client ID (Lab ID)						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:	
SW05 (890-2261-1)						X	X	X	1	
SW06 (890-2261-2)						X	X	X	1	
SW07 (890-2261-3)						X	X	X	1	
SW08 (890-2261-4)						X	X	X	1	
SW09 (890-2261-5)						X	X	X	1	
SW10 (890-2261-6)						X	X	X	1	
SW11 (890-2261-7)						X	X	X	1	
SW12 (890-2261-8)						X	X	X	1	
SW13 (890-2261-9)						X	X	X	1	
Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test methods being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current at date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC.										
Possible Hazard Identification										
Unconfirmed										
Deliverable Requested I II III IV, Other (Specify) Primary Deliverable Rank 2										
Empty Kit Relinquished by: Date Time Method of Shipment:										
Relinquished by: Received by: Date Time Company										
Relinquished by: Received by: Date Time Company										
Custody Seals Intact: Custody Seal No Cooler Temperature(s) °C and Other Remarks.										
Δ Yes Δ No										

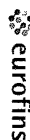
Eurofins Carlsbad

1089 N Canal St.

Carlsbad NM 88220

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

Chain of Custody Record



**Environment Testing
America**

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2261-2

SDG Number: 03A1987005

Login Number: 2261

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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: 890-2261-2

SDG Number: 03A1987005

Login Number: 2261

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 05/02/22 08:06 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2263-1

Laboratory Sample Delivery Group: 03a1987005

Client Project/Site: North Brushy Draw 35-2H

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Joseph Hernandez

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
5/9/2022 8:58:02 AM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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results through

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

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

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Laboratory Job ID: 890-2263-1
SDG: 03a1987005

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	20

Definitions/Glossary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

Job ID: 890-2263-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-2263-1****Receipt**

The samples were received on 4/29/2022 3:34 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24319 and analytical batch 880-24740 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24742 and analytical batch 880-24769 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW15 (890-2263-1) and SW16 (890-2263-2). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

Client Sample ID: SW15

Lab Sample ID: 890-2263-1

Date Collected: 04/29/22 10:30

Matrix: Solid

Date Received: 04/29/22 15:34

Sample Depth: 0 - 3

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		05/03/22 14:30	05/04/22 01:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/03/22 14:30	05/04/22 01:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/03/22 14:30	05/04/22 01:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/03/22 14:30	05/04/22 01:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/03/22 14:30	05/04/22 01:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/03/22 14:30	05/04/22 01:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	05/03/22 14:30	05/04/22 01:09	1
1,4-Difluorobenzene (Surr)	100		70 - 130	05/03/22 14:30	05/04/22 01:09	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/04/22 12:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/05/22 12:45	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/03/22 14:16	05/04/22 17:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/03/22 14:16	05/04/22 17:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/03/22 14:16	05/04/22 17:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	52	S1-	70 - 130	05/03/22 14:16	05/04/22 17:31	1
o-Terphenyl	52	S1-	70 - 130	05/03/22 14:16	05/04/22 17:31	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1310		4.97		mg/Kg			05/06/22 17:03	1

Client Sample ID: SW16

Lab Sample ID: 890-2263-2

Date Collected: 04/29/22 11:00

Matrix: Solid

Date Received: 04/29/22 15:34

Sample Depth: 0 - 3

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		05/03/22 14:30	05/04/22 01:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/03/22 14:30	05/04/22 01:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/03/22 14:30	05/04/22 01:30	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/03/22 14:30	05/04/22 01:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/03/22 14:30	05/04/22 01:30	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/03/22 14:30	05/04/22 01:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	05/03/22 14:30	05/04/22 01:30	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

Client Sample ID: SW16

Lab Sample ID: 890-2263-2

Date Collected: 04/29/22 11:00

Matrix: Solid

Date Received: 04/29/22 15:34

Sample Depth: 0 - 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103		70 - 130	05/03/22 14:30	05/04/22 01:30	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			05/04/22 12:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/05/22 12:45	1

Method: 8015B NM - Diesel Range Organics (DRO) (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		05/03/22 14:16	05/04/22 17:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/03/22 14:16	05/04/22 17:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/03/22 14:16	05/04/22 17:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	40	S1-	70 - 130				05/03/22 14:16	05/04/22 17:52	1
o-Terphenyl	38	S1-	70 - 130				05/03/22 14:16	05/04/22 17:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	209		4.98		mg/Kg			05/06/22 17:11	1

Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-14276-A-11-C MS	Matrix Spike	112	99
880-14276-A-11-D MSD	Matrix Spike Duplicate	106	101
890-2263-1	SW15	106	100
890-2263-2	SW16	109	103
LCS 880-24319/1-A	Lab Control Sample	101	101
LCSD 880-24319/2-A	Lab Control Sample Dup	104	101
MB 880-24319/5-A	Method Blank	98	96
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-14234-A-1-E MS	Matrix Spike	33 S1-	29 S1-
880-14234-A-1-F MSD	Matrix Spike Duplicate	43 S1-	34 S1-
890-2263-1	SW15	52 S1-	52 S1-
890-2263-2	SW16	40 S1-	38 S1-
LCS 880-24742/2-A	Lab Control Sample	105	104
LCSD 880-24742/3-A	Lab Control Sample Dup	113	110
MB 880-24742/1-A	Method Blank	86	97
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24319/5-A

Matrix: Solid

Analysis Batch: 24740

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24319

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/27/22 11:49	05/03/22 17:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/27/22 11:49	05/03/22 17:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/27/22 11:49	05/03/22 17:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/27/22 11:49	05/03/22 17:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/27/22 11:49	05/03/22 17:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/27/22 11:49	05/03/22 17:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	04/27/22 11:49	05/03/22 17:02	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/27/22 11:49	05/03/22 17:02	1

Lab Sample ID: LCS 880-24319/1-A

Matrix: Solid

Analysis Batch: 24740

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24319

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08370		mg/Kg		84	70 - 130
Toluene	0.100	0.08340		mg/Kg		83	70 - 130
Ethylbenzene	0.100	0.08448		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	0.200	0.1757		mg/Kg		88	70 - 130
o-Xylene	0.100	0.09531		mg/Kg		95	70 - 130

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

Lab Sample ID: LCSD 880-24319/2-A

Matrix: Solid

Analysis Batch: 24740

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24319

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09599		mg/Kg		96	70 - 130	14	35
Toluene	0.100	0.09590		mg/Kg		96	70 - 130	14	35
Ethylbenzene	0.100	0.09740		mg/Kg		97	70 - 130	14	35
m-Xylene & p-Xylene	0.200	0.2020		mg/Kg		101	70 - 130	14	35
o-Xylene	0.100	0.1096		mg/Kg		110	70 - 130	14	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-14276-A-11-C MS

Matrix: Solid

Analysis Batch: 24740

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24319

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0996	0.07957		mg/Kg		80	70 - 130
Toluene	<0.00201	U	0.0996	0.08446		mg/Kg		85	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

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

Lab Sample ID: 880-14276-A-11-C MS

Matrix: Solid

Analysis Batch: 24740

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24319

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.0996	0.08536		mg/Kg		86	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1786		mg/Kg		90	70 - 130
o-Xylene	<0.00201	U	0.0996	0.09618		mg/Kg		97	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 880-14276-A-11-D MSD

Matrix: Solid

Analysis Batch: 24740

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24319

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0994	0.07637		mg/Kg		77	70 - 130	4	35
Toluene	<0.00201	U	0.0994	0.07520		mg/Kg		76	70 - 130	12	35
Ethylbenzene	<0.00201	U	0.0994	0.07637		mg/Kg		77	70 - 130	11	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1593		mg/Kg		80	70 - 130	11	35
o-Xylene	<0.00201	U	0.0994	0.08674		mg/Kg		87	70 - 130	10	35

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

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

Lab Sample ID: MB 880-24742/1-A

Matrix: Solid

Analysis Batch: 24769

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24742

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/03/22 14:16	05/04/22 10:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/03/22 14:16	05/04/22 10:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/03/22 14:16	05/04/22 10:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	05/03/22 14:16	05/04/22 10:58	1
o-Terphenyl	97		70 - 130	05/03/22 14:16	05/04/22 10:58	1

Lab Sample ID: LCS 880-24742/2-A

Matrix: Solid

Analysis Batch: 24769

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24742

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	935.0		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	1000	967.7		mg/Kg		97	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

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

Lab Sample ID: LCS 880-24742/2-A

Matrix: Solid

Analysis Batch: 24769

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24742

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: LCSD 880-24742/3-A

Matrix: Solid

Analysis Batch: 24769

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24742

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1022		mg/Kg		102	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1040		mg/Kg		104	70 - 130	7	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 880-14234-A-1-E MS

Matrix: Solid

Analysis Batch: 24769

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24742

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	331.2	F1	mg/Kg		33	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F1 F2	1000	292.2	F1	mg/Kg		28	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	33	S1-	70 - 130
o-Terphenyl	29	S1-	70 - 130

Lab Sample ID: 880-14234-A-1-F MSD

Matrix: Solid

Analysis Batch: 24769

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24742

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	374.5	F1	mg/Kg		38	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1 F2	998	363.9	F1 F2	mg/Kg		35	70 - 130	22	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	43	S1-	70 - 130
o-Terphenyl	34	S1-	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24812/1-A

Matrix: Solid

Analysis Batch: 24863

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/05/22 18:59	1

Lab Sample ID: LCS 880-24812/2-A

Matrix: Solid

Analysis Batch: 24863

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	261.5		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-24812/3-A

Matrix: Solid

Analysis Batch: 24863

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	251.5		mg/Kg		101	90 - 110	4	20

Lab Sample ID: 880-14390-A-4-B MS

Matrix: Solid

Analysis Batch: 24863

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	543		250	778.4		mg/Kg		94	90 - 110

Lab Sample ID: 880-14390-A-4-C MSD

Matrix: Solid

Analysis Batch: 24863

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	543		250	784.9		mg/Kg		97	90 - 110	1	20

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

GC VOA

Prep Batch: 24319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2263-1	SW15	Total/NA	Solid	5035	
890-2263-2	SW16	Total/NA	Solid	5035	
MB 880-24319/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24319/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24319/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-14276-A-11-C MS	Matrix Spike	Total/NA	Solid	5035	
880-14276-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 24740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2263-1	SW15	Total/NA	Solid	8021B	24319
890-2263-2	SW16	Total/NA	Solid	8021B	24319
MB 880-24319/5-A	Method Blank	Total/NA	Solid	8021B	24319
LCS 880-24319/1-A	Lab Control Sample	Total/NA	Solid	8021B	24319
LCSD 880-24319/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24319
880-14276-A-11-C MS	Matrix Spike	Total/NA	Solid	8021B	24319
880-14276-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24319

Analysis Batch: 24819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2263-1	SW15	Total/NA	Solid	Total BTEX	
890-2263-2	SW16	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2263-1	SW15	Total/NA	Solid	8015NM Prep	
890-2263-2	SW16	Total/NA	Solid	8015NM Prep	
MB 880-24742/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24742/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24742/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-14234-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-14234-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2263-1	SW15	Total/NA	Solid	8015B NM	24742
890-2263-2	SW16	Total/NA	Solid	8015B NM	24742
MB 880-24742/1-A	Method Blank	Total/NA	Solid	8015B NM	24742
LCS 880-24742/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24742
LCSD 880-24742/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24742
880-14234-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	24742
880-14234-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24742

Analysis Batch: 24892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2263-1	SW15	Total/NA	Solid	8015 NM	
890-2263-2	SW16	Total/NA	Solid	8015 NM	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

HPLC/IC

Leach Batch: 24812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2263-1	SW15	Soluble	Solid	DI Leach	
890-2263-2	SW16	Soluble	Solid	DI Leach	
MB 880-24812/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24812/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24812/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-14390-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-14390-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2263-1	SW15	Soluble	Solid	300.0	24812
890-2263-2	SW16	Soluble	Solid	300.0	24812
MB 880-24812/1-A	Method Blank	Soluble	Solid	300.0	24812
LCS 880-24812/2-A	Lab Control Sample	Soluble	Solid	300.0	24812
LCSD 880-24812/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24812
880-14390-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	24812
880-14390-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24812

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

Client Sample ID: SW15
Date Collected: 04/29/22 10:30
Date Received: 04/29/22 15:34

Lab Sample ID: 890-2263-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	24319	05/03/22 14:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24740	05/04/22 01:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24819	05/04/22 12:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24892	05/05/22 12:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24742	05/03/22 14:16	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24769	05/04/22 17:31	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24812	05/04/22 12:02	SC	XEN MID
Soluble	Analysis	300.0		1			24863	05/06/22 17:03	SC	XEN MID

Client Sample ID: SW16
Date Collected: 04/29/22 11:00
Date Received: 04/29/22 15:34

Lab Sample ID: 890-2263-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24319	05/03/22 14:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24740	05/04/22 01:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24819	05/04/22 12:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24892	05/05/22 12:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24742	05/03/22 14:16	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24769	05/04/22 17:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24812	05/04/22 12:02	SC	XEN MID
Soluble	Analysis	300.0		1			24863	05/06/22 17:11	SC	XEN MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

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

Sample Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2263-1
SDG: 03a1987005

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2263-1	SW15	Solid	04/29/22 10:30	04/29/22 15:34	0 - 3
890-2263-2	SW16	Solid	04/29/22 11:00	04/29/22 15:34	0 - 3

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing

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


Chain of Custody

Work Order No:



www.xenco.com Page 1 of 1

Project Manager:	Anna Byers	Bill to: (if different)	Jim Raley
Company Name:	Ensolium	Company Name:	WPX
Address:	3122 National Parks HWY	Address:	5315 Buena Vista Dr.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	575-200-6754	Email:	Abyers@Ensolium.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

ANALYSIS REQUEST										Preservative Codes		
Project Name:	North Brushy Draw 35-2H			Turn Around		Pres. Code					None: NO	DI Water: H ₂ O
Project Number:	03A1987005			<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush						Cool: Cool	MeOH: Me
Project Location:	Eddy County, NM			Due Date:	5 day TAT						HCL: HC	HNO ₃ : HN
Sampler's Name:	Gilbert Moreno			TAT starts the day received by the lab, if received by 4:30pm							H ₂ SO ₄ : H ₂	NaOH: Na
CC #:	1061121501										H ₃ PO ₄ : HP	
SAMPLE RECEIPT				Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				NaHSO ₄ : NABIS	
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID:	T _{thermo} 07							Na ₂ S ₂ O ₃ : NASO ₃	
Cooler Custody Seals:	Yes	No	M/A	Correction Factor:	-0.2						Zn Acetate+NaOH: Zn	
Sample Custody Seals:	Yes	No	N/A	Temperature Reading:	1.3						NaOH+Ascorbic Acid: SASC	
Total Containers:			Corrected Temperature:	1.1		Parameters						
RIDES (EPA: 300.0)												
015)												
8021												
 890-2263 Chain of Custody												

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLOR	TPH (8)	BTEX (6)	Sample Comments										
SW15	S	4.29.22	10:30	0-3'	Comp	1	X	X	X											
SW16	S	4.29.22	11:00	0-3'	Comp	1	X	X	X											
											Incident ID									
											NRM2014147987									

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11		Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hg: 1631 / 245.1 / 7470 / 7471			
<p>Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.</p>							
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		
		4/29/22 5:32h					
1							
3							
5							

Eurofins Carlsbad

1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2263-1

SDG Number: 03a1987005

Login Number: 2263

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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: 890-2263-1

SDG Number: 03a1987005

Login Number: 2263

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 05/03/22 01:30 PM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2270-1

Laboratory Sample Delivery Group: Eddy County, NM
Client Project/Site: North Brushy Draw 35-2H

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Joseph Hernandez

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
5/12/2022 2:18:10 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Laboratory Job ID: 890-2270-1
SDG: Eddy County,NM

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

Job ID: 890-2270-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2270-1

Receipt

The samples were received on 5/3/2022 8:13 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 2.0°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-25088 and analytical batch 880-25306 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside of acceptance limits: BH01 (890-2270-2) and (CCV 880-25306/20). There was insufficient sample to perform a re-extraction; therefore, the data have been reported.

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

Client Sample ID: BH01

Lab Sample ID: 890-2270-1

Date Collected: 04/29/22 11:25

Matrix: Solid

Date Received: 05/03/22 08:13

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U F1	0.00202		mg/Kg		05/09/22 11:53	05/11/22 15:19	1
Toluene	<0.00202	U F2 F1	0.00202		mg/Kg		05/09/22 11:53	05/11/22 15:19	1
Ethylbenzene	<0.00202	U F2 F1	0.00202		mg/Kg		05/09/22 11:53	05/11/22 15:19	1
m-Xylene & p-Xylene	<0.00404	U F2 F1	0.00404		mg/Kg		05/09/22 11:53	05/11/22 15:19	1
o-Xylene	<0.00202	U F2 F1	0.00202		mg/Kg		05/09/22 11:53	05/11/22 15:19	1
Xylenes, Total	<0.00404	U F2 F1	0.00404		mg/Kg		05/09/22 11:53	05/11/22 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	05/09/22 11:53	05/11/22 15:19	1
1,4-Difluorobenzene (Surr)	71		70 - 130	05/09/22 11:53	05/11/22 15:19	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			05/12/22 13:53	1

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		mg/Kg			05/06/22 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *. *1	49.9		mg/Kg		05/05/22 11:19	05/06/22 04:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/05/22 11:19	05/06/22 04:53	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/05/22 11:19	05/06/22 04:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	05/05/22 11:19	05/06/22 04:53	1
o-Terphenyl	99		70 - 130	05/05/22 11:19	05/06/22 04:53	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/05/22 21:47	1

Client Sample ID: BH01

Lab Sample ID: 890-2270-2

Date Collected: 04/29/22 11:30

Matrix: Solid

Date Received: 05/03/22 08:13

Sample Depth: 4'

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		05/09/22 11:53	05/11/22 15:47	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/09/22 11:53	05/11/22 15:47	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/09/22 11:53	05/11/22 15:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/09/22 11:53	05/11/22 15:47	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/09/22 11:53	05/11/22 15:47	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/09/22 11:53	05/11/22 15:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	149	S1+	70 - 130	05/09/22 11:53	05/11/22 15:47	1

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Client Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

Client Sample ID: BH01

Lab Sample ID: 890-2270-2

Date Collected: 04/29/22 11:30

Matrix: Solid

Date Received: 05/03/22 08:13

Sample Depth: 4'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	75		70 - 130	05/09/22 11:53	05/11/22 15:47	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			05/12/22 13:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/06/22 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *- *1	50.0		mg/Kg		05/05/22 11:19	05/06/22 05:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/05/22 11:19	05/06/22 05:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/05/22 11:19	05/06/22 05:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				05/05/22 11:19	05/06/22 05:14	1
o-Terphenyl	106		70 - 130				05/05/22 11:19	05/06/22 05:14	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.0		4.98		mg/Kg			05/05/22 21:57	1

Surrogate Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2270-1	BH01	109	71
890-2270-1 MS	BH01	154 S1+	89
890-2270-1 MSD	BH01	129	97
890-2270-2	BH01	149 S1+	75
LCS 880-25088/1-A	Lab Control Sample	150 S1+	94
LCSD 880-25088/2-A	Lab Control Sample Dup	137 S1+	85
MB 880-25088/5-A	Method Blank	107	76
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2268-A-2-C MS	Matrix Spike	88	89
890-2268-A-2-D MSD	Matrix Spike Duplicate	86	85
890-2270-1	BH01	94	99
890-2270-2	BH01	101	106
LCS 880-24872/2-A	Lab Control Sample	101	104
LCSD 880-24872/3-A	Lab Control Sample Dup	113	117
MB 880-24872/1-A	Method Blank	90	99
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-25088/5-A

Matrix: Solid

Analysis Batch: 25306

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 25088

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:53	05/11/22 14:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:53	05/11/22 14:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:53	05/11/22 14:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/09/22 11:53	05/11/22 14:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:53	05/11/22 14:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/09/22 11:53	05/11/22 14:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	05/09/22 11:53	05/11/22 14:53	1
1,4-Difluorobenzene (Surr)	76		70 - 130	05/09/22 11:53	05/11/22 14:53	1

Lab Sample ID: LCS 880-25088/1-A

Matrix: Solid

Analysis Batch: 25306

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 25088

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1130		mg/Kg		113	70 - 130
Toluene	0.100	0.1120		mg/Kg		112	70 - 130
Ethylbenzene	0.100	0.1247		mg/Kg		125	70 - 130
m-Xylene & p-Xylene	0.200	0.2529		mg/Kg		126	70 - 130
o-Xylene	0.100	0.1257		mg/Kg		126	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-25088/2-A

Matrix: Solid

Analysis Batch: 25306

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 25088

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1079		mg/Kg		108	70 - 130	5	35
Toluene	0.100	0.1095		mg/Kg		109	70 - 130	2	35
Ethylbenzene	0.100	0.1195		mg/Kg		120	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2415		mg/Kg		121	70 - 130	5	35
o-Xylene	0.100	0.1191		mg/Kg		119	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 890-2270-1 MS

Matrix: Solid

Analysis Batch: 25306

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 25088

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1	0.0996	<0.00199	U F1	mg/Kg		0	70 - 130
Toluene	<0.00202	U F2 F1	0.0996	<0.00199	U F1	mg/Kg		2	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

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

Lab Sample ID: 890-2270-1 MS

Matrix: Solid

Analysis Batch: 25306

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 25088

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U F2 F1	0.0996	<0.00199	U F1	mg/Kg		2	70 - 130
m-Xylene & p-Xylene	<0.00404	U F2 F1	0.199	0.004587	F1	mg/Kg		2	70 - 130
o-Xylene	<0.00202	U F2 F1	0.0996	0.002450	F1	mg/Kg		2	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	154	S1+	70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 890-2270-1 MSD

Matrix: Solid

Analysis Batch: 25306

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 25088

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1	0.0992	0.08006		mg/Kg		81	70 - 130	NC	35
Toluene	<0.00202	U F2 F1	0.0992	0.06652	F2 F1	mg/Kg		67	70 - 130	189	35
Ethylbenzene	<0.00202	U F2 F1	0.0992	0.06049	F2 F1	mg/Kg		61	70 - 130	190	35
m-Xylene & p-Xylene	<0.00404	U F2 F1	0.198	0.1214	F2 F1	mg/Kg		61	70 - 130	185	35
o-Xylene	<0.00202	U F2 F1	0.0992	0.06340	F2 F1	mg/Kg		64	70 - 130	185	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

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

Lab Sample ID: MB 880-24872/1-A

Matrix: Solid

Analysis Batch: 24856

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24872

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/05/22 11:19	05/05/22 21:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/05/22 11:19	05/05/22 21:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/05/22 11:19	05/05/22 21:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	05/05/22 11:19	05/05/22 21:06	1
o-Terphenyl	99		70 - 130	05/05/22 11:19	05/05/22 21:06	1

Lab Sample ID: LCS 880-24872/2-A

Matrix: Solid

Analysis Batch: 24856

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	973.5		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1047		mg/Kg		105	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

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

Lab Sample ID: LCS 880-24872/2-A
Matrix: Solid
Analysis Batch: 24856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24872

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: LCSD 880-24872/3-A
Matrix: Solid
Analysis Batch: 24856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24872

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	609.9	*- *1	mg/Kg		61	70 - 130	46	20
Diesel Range Organics (Over C10-C28)	1000	1073		mg/Kg		107	70 - 130	2	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	117		70 - 130

Lab Sample ID: 890-2268-A-2-C MS
Matrix: Solid
Analysis Batch: 24856

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24872

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *- *1	1000	823.4		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	878.5		mg/Kg		86	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 890-2268-A-2-D MSD
Matrix: Solid
Analysis Batch: 24856

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24872

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *- *1	998	808.2		mg/Kg		78	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	843.1		mg/Kg		83	70 - 130	4	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	85		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24816/1-A
Matrix: Solid
Analysis Batch: 24926

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/05/22 17:39	1

Lab Sample ID: LCS 880-24816/2-A
Matrix: Solid
Analysis Batch: 24926

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	266.6		mg/Kg		107	90 - 110

Lab Sample ID: LCSD 880-24816/3-A
Matrix: Solid
Analysis Batch: 24926

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	256.8		mg/Kg		103	90 - 110	4	20

Lab Sample ID: 890-2269-A-7-B MS
Matrix: Solid
Analysis Batch: 24926

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	147		253	384.4		mg/Kg		94	90 - 110

Lab Sample ID: 890-2269-A-7-C MSD
Matrix: Solid
Analysis Batch: 24926

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	147		253	393.1		mg/Kg		97	90 - 110	2	20

QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

GC VOA

Prep Batch: 25088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2270-1	BH01	Total/NA	Solid	5035	
890-2270-2	BH01	Total/NA	Solid	5035	
MB 880-25088/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25088/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25088/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2270-1 MS	BH01	Total/NA	Solid	5035	
890-2270-1 MSD	BH01	Total/NA	Solid	5035	

Analysis Batch: 25306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2270-1	BH01	Total/NA	Solid	8021B	25088
890-2270-2	BH01	Total/NA	Solid	8021B	25088
MB 880-25088/5-A	Method Blank	Total/NA	Solid	8021B	25088
LCS 880-25088/1-A	Lab Control Sample	Total/NA	Solid	8021B	25088
LCSD 880-25088/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25088
890-2270-1 MS	BH01	Total/NA	Solid	8021B	25088
890-2270-1 MSD	BH01	Total/NA	Solid	8021B	25088

Analysis Batch: 25434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2270-1	BH01	Total/NA	Solid	Total BTEX	
890-2270-2	BH01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 24856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2270-1	BH01	Total/NA	Solid	8015B NM	24872
890-2270-2	BH01	Total/NA	Solid	8015B NM	24872
MB 880-24872/1-A	Method Blank	Total/NA	Solid	8015B NM	24872
LCS 880-24872/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24872
LCSD 880-24872/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24872
890-2268-A-2-C MS	Matrix Spike	Total/NA	Solid	8015B NM	24872
890-2268-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24872

Prep Batch: 24872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2270-1	BH01	Total/NA	Solid	8015NM Prep	
890-2270-2	BH01	Total/NA	Solid	8015NM Prep	
MB 880-24872/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24872/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24872/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2268-A-2-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2268-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2270-1	BH01	Total/NA	Solid	8015 NM	
890-2270-2	BH01	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

HPLC/IC

Leach Batch: 24816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2270-1	BH01	Soluble	Solid	DI Leach	
890-2270-2	BH01	Soluble	Solid	DI Leach	
MB 880-24816/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24816/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24816/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2269-A-7-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2269-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2270-1	BH01	Soluble	Solid	300.0	24816
890-2270-2	BH01	Soluble	Solid	300.0	24816
MB 880-24816/1-A	Method Blank	Soluble	Solid	300.0	24816
LCS 880-24816/2-A	Lab Control Sample	Soluble	Solid	300.0	24816
LCSD 880-24816/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24816
890-2269-A-7-B MS	Matrix Spike	Soluble	Solid	300.0	24816
890-2269-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24816

Lab Chronicle

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

Client Sample ID: BH01

Lab Sample ID: 890-2270-1

Date Collected: 04/29/22 11:25

Matrix: Solid

Date Received: 05/03/22 08:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	25088	05/09/22 11:53	MR	XEN MID
Total/NA	Analysis	8021B		1			25306	05/11/22 15:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25434	05/12/22 13:53	SM	XEN MID
Total/NA	Analysis	8015 NM		1			24960	05/06/22 11:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24872	05/05/22 11:19	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24856	05/06/22 04:53	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24816	05/04/22 12:12	SC	XEN MID
Soluble	Analysis	300.0		1			24926	05/05/22 21:47	CH	XEN MID

Client Sample ID: BH01

Lab Sample ID: 890-2270-2

Date Collected: 04/29/22 11:30

Matrix: Solid

Date Received: 05/03/22 08:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	25088	05/09/22 11:53	MR	XEN MID
Total/NA	Analysis	8021B		1			25306	05/11/22 15:47	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25434	05/12/22 13:53	SM	XEN MID
Total/NA	Analysis	8015 NM		1			24960	05/06/22 11:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24872	05/05/22 11:19	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24856	05/06/22 05:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24816	05/04/22 12:12	SC	XEN MID
Soluble	Analysis	300.0		1			24926	05/05/22 21:57	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
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

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

Sample Summary

Client: Ensolum
Project/Site: North Brushy Draw 35-2H

Job ID: 890-2270-1
SDG: Eddy County,NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2270-1	BH01	Solid	04/29/22 11:25	05/03/22 08:13	0.5'
890-2270-2	BH01	Solid	04/29/22 11:30	05/03/22 08:13	4'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing

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

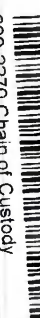
Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Anna Byers	Bill to: (if different)	Jim Raley
Company Name:	Ensolum	Company Name:	WPX
Address:	3122 National Parks HWY	Address:	5315 Buena Vista Dr.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	575-200-6754	Email:	AByers@Ensolum.com



Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:		North Brushy Draw 35-2H		Turn Around		Pres. Code	ANALYSIS REQUEST										Preservative Codes	
Project Number:	03A1987005		<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush													None: NO	DI Water: H ₂ O
Project Location:	Eddy County, NM		Due Date:		5 Day TAT											Cool: Cool	MeOH: Me	
Sampler's Name:	Gilbert Moreno		TAT starts the day received by the lab. If received by 4:30pm													HCL: HC	HNO ₃ : HN	
CC #:	1061121501															H ₂ SO ₄ : H ₂	NaOH: Na	
SAMPLE RECEIPT			Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											H ₃ PO ₄ : HP	
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:															NaHSO ₄ : NABIS	
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	N/A	Correction Factor:														Na ₂ S ₂ O ₃ : NBSO ₃	
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	N/A	Temperature Reading:		2.2												Zn Acetate+NaOH: Zn	
Total Containers:			Corrected Temperature:		2.0												NaOH+Ascorbic Acid: SACP	
Parameters							890-2270 Chain of Custody											
																		
RIDES (EPA: 300.0)							<div>015</div> <div>8021</div>											

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed			TCLP / SPLP 6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U					Hg: 1631 / 245.1 / 7470 / 7471								

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xanco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xanco 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 Xanco. A minimum charge of \$65.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xanco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		5.3.22 0813			

0-14-4 Date: 08/05/2020 Baw 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2270-1

SDG Number: Eddy County, NM

Login Number: 2270

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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: 890-2270-1

SDG Number: Eddy County,NM

Login Number: 2270

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 05/04/22 10:56 AM

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



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2329-1

Laboratory Sample Delivery Group: 03A1987005

Client Project/Site: NORTH BRUSHY 35-2H

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Anna Byers

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

5/26/2022 11:57:47 AM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Laboratory Job ID: 890-2329-1
SDG: 03A1987005

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	9
QC Sample Results	10
QC Association Summary	14
Lab Chronicle	16
Certification Summary	18
Method Summary	19
Sample Summary	20
Chain of Custody	21
Receipt Checklists	23

Definitions/Glossary

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD 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

Case Narrative

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Job ID: 890-2329-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-2329-1****Receipt**

The samples were received on 5/20/2022 11:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-25990/1-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-2327-A-1-H). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS03 (890-2329-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-2327-A-21-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-26030 and analytical batch 880-26020 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10. The MS/MSD RPD passes therefore shows recovery for the batch.

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 laboratory control sample (LCS) associated with preparation batch 880-26108 and analytical batch 880-26223 was outside acceptance criteria. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

Client Sample Results

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Client Sample ID: FS01

Lab Sample ID: 890-2329-1

Date Collected: 05/19/22 10:30

Matrix: Solid

Date Received: 05/20/22 11:35

Sample Depth: 4

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		05/23/22 13:00	05/23/22 23:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/23/22 13:00	05/23/22 23:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/23/22 13:00	05/23/22 23:38	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/23/22 13:00	05/23/22 23:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/23/22 13:00	05/23/22 23:38	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/23/22 13:00	05/23/22 23:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	05/23/22 13:00	05/23/22 23:38	1
1,4-Difluorobenzene (Surr)	92		70 - 130	05/23/22 13:00	05/23/22 23:38	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/24/22 11:57	1

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		mg/Kg			05/24/22 09:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		05/23/22 08:26	05/23/22 17:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/23/22 08:26	05/23/22 17:17	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/23/22 08:26	05/23/22 17:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	05/23/22 08:26	05/23/22 17:17	1
o-Terphenyl	118		70 - 130	05/23/22 08:26	05/23/22 17:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75.3	*- *1	5.05		mg/Kg			05/25/22 19:14	1

Client Sample ID: FS02

Lab Sample ID: 890-2329-2

Date Collected: 05/19/22 12:45

Matrix: Solid

Date Received: 05/20/22 11:35

Sample Depth: 4

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		05/23/22 13:00	05/24/22 00:04	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/23/22 13:00	05/24/22 00:04	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/23/22 13:00	05/24/22 00:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/23/22 13:00	05/24/22 00:04	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/23/22 13:00	05/24/22 00:04	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/23/22 13:00	05/24/22 00:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	05/23/22 13:00	05/24/22 00:04	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Client Sample ID: FS02

Lab Sample ID: 890-2329-2

Date Collected: 05/19/22 12:45

Matrix: Solid

Date Received: 05/20/22 11:35

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130	05/23/22 13:00	05/24/22 00:04	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			05/24/22 11:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/24/22 09:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		05/23/22 08:26	05/23/22 17:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/23/22 08:26	05/23/22 17:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/23/22 08:26	05/23/22 17:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				05/23/22 08:26	05/23/22 17:39	1
o-Terphenyl	109		70 - 130				05/23/22 08:26	05/23/22 17:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	83.4	*- *1	4.98		mg/Kg			05/25/22 20:35	1

Client Sample ID: FS03

Lab Sample ID: 890-2329-3

Date Collected: 05/19/22 12:50

Matrix: Solid

Date Received: 05/20/22 11:35

Sample Depth: 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/23/22 13:00	05/24/22 00:30	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/23/22 13:00	05/24/22 00:30	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/23/22 13:00	05/24/22 00:30	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/23/22 13:00	05/24/22 00:30	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/23/22 13:00	05/24/22 00:30	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/23/22 13:00	05/24/22 00:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130	05/23/22 13:00	05/24/22 00:30	1
1,4-Difluorobenzene (Surr)	92		70 - 130	05/23/22 13:00	05/24/22 00:30	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/24/22 11:57	1

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		mg/Kg			05/24/22 09:49	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Client Sample ID: FS03

Lab Sample ID: 890-2329-3

Date Collected: 05/19/22 12:50

Matrix: Solid

Date Received: 05/20/22 11:35

Sample Depth: 4.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		05/23/22 08:26	05/23/22 18:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/23/22 08:26	05/23/22 18:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/23/22 08:26	05/23/22 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				05/23/22 08:26	05/23/22 18:01	1
o-Terphenyl	100		70 - 130				05/23/22 08:26	05/23/22 18:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	170	*- *1	5.00		mg/Kg			05/25/22 20:42	1

Client Sample ID: FS04

Lab Sample ID: 890-2329-4

Date Collected: 05/19/22 12:55

Matrix: Solid

Date Received: 05/20/22 11:35

Sample Depth: 4 - 4.5

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		05/23/22 13:00	05/24/22 00:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/23/22 13:00	05/24/22 00:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/23/22 13:00	05/24/22 00:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/23/22 13:00	05/24/22 00:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/23/22 13:00	05/24/22 00:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/23/22 13:00	05/24/22 00:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130				05/23/22 13:00	05/24/22 00:55	1
1,4-Difluorobenzene (Surr)	98		70 - 130				05/23/22 13:00	05/24/22 00:55	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			05/24/22 11:57	1

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		mg/Kg			05/24/22 09:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		05/23/22 08:26	05/23/22 18:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/23/22 08:26	05/23/22 18:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/23/22 08:26	05/23/22 18:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				05/23/22 08:26	05/23/22 18:23	1
o-Terphenyl	110		70 - 130				05/23/22 08:26	05/23/22 18:23	1

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Client Sample Results

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Client Sample ID: FS04

Lab Sample ID: 890-2329-4

Date Collected: 05/19/22 12:55

Matrix: Solid

Date Received: 05/20/22 11:35

Sample Depth: 4 - 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	159	*- *1	4.99		mg/Kg			05/25/22 21:05	1

Client Sample ID: FS18

Lab Sample ID: 890-2329-5

Date Collected: 05/19/22 13:00

Matrix: Solid

Date Received: 05/20/22 11:35

Sample Depth: 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/23/22 13:00	05/24/22 01:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/23/22 13:00	05/24/22 01:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/23/22 13:00	05/24/22 01:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/23/22 13:00	05/24/22 01:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/23/22 13:00	05/24/22 01:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/23/22 13:00	05/24/22 01:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130				05/23/22 13:00	05/24/22 01:21	1
1,4-Difluorobenzene (Surr)	96		70 - 130				05/23/22 13:00	05/24/22 01:21	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/24/22 11:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/24/22 09:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		05/23/22 08:26	05/23/22 18:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/23/22 08:26	05/23/22 18:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/23/22 08:26	05/23/22 18:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				05/23/22 08:26	05/23/22 18:44	1
o-Terphenyl	102		70 - 130				05/23/22 08:26	05/23/22 18:44	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	167	*- *1	5.00		mg/Kg			05/25/22 21:12	1

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Surrogate Summary

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2327-A-1-I MS	Matrix Spike	125	88
890-2327-A-1-J MSD	Matrix Spike Duplicate	120	92
890-2329-1	FS01	117	92
890-2329-2	FS02	119	91
890-2329-3	FS03	136 S1+	92
890-2329-4	FS04	127	98
890-2329-5	FS18	128	96
LCS 880-25990/1-A	Lab Control Sample	133 S1+	98
LCSD 880-25990/2-A	Lab Control Sample Dup	123	89
MB 880-25990/5-A	Method Blank	91	89
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2327-A-21-B MS	Matrix Spike	115	114
890-2327-A-21-C MSD	Matrix Spike Duplicate	103	101
890-2329-1	FS01	109	118
890-2329-2	FS02	106	109
890-2329-3	FS03	98	100
890-2329-4	FS04	106	110
890-2329-5	FS18	98	102
LCS 880-26030/2-A	Lab Control Sample	130	130
LCSD 880-26030/3-A	Lab Control Sample Dup	110	110
MB 880-26030/1-A	Method Blank	107	114
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-25990/5-A

Matrix: Solid

Analysis Batch: 26082

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 25990

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/20/22 15:46	05/23/22 17:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/20/22 15:46	05/23/22 17:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/20/22 15:46	05/23/22 17:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/20/22 15:46	05/23/22 17:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/20/22 15:46	05/23/22 17:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/20/22 15:46	05/23/22 17:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	05/20/22 15:46	05/23/22 17:31	1
1,4-Difluorobenzene (Surr)	89		70 - 130	05/20/22 15:46	05/23/22 17:31	1

Lab Sample ID: LCS 880-25990/1-A

Matrix: Solid

Analysis Batch: 26082

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 25990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1157		mg/Kg		116	70 - 130
Toluene	0.100	0.1180		mg/Kg		118	70 - 130
Ethylbenzene	0.100	0.1195		mg/Kg		119	70 - 130
m-Xylene & p-Xylene	0.200	0.2405		mg/Kg		120	70 - 130
o-Xylene	0.100	0.1179		mg/Kg		118	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-25990/2-A

Matrix: Solid

Analysis Batch: 26082

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 25990

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1046		mg/Kg		105	70 - 130	10	35
Toluene	0.100	0.1093		mg/Kg		109	70 - 130	8	35
Ethylbenzene	0.100	0.1089		mg/Kg		109	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.2205		mg/Kg		110	70 - 130	9	35
o-Xylene	0.100	0.1075		mg/Kg		108	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 890-2327-A-1-I MS

Matrix: Solid

Analysis Batch: 26082

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 25990

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.09613		mg/Kg		96	70 - 130
Toluene	<0.00201	U	0.100	0.09530		mg/Kg		95	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

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

Lab Sample ID: 890-2327-A-1-I MS

Matrix: Solid

Analysis Batch: 26082

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 25990

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.08810		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1722		mg/Kg		86	70 - 130
o-Xylene	<0.00201	U	0.100	0.08471		mg/Kg		85	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	125		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: 890-2327-A-1-J MSD

Matrix: Solid

Analysis Batch: 26082

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 25990

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.09841		mg/Kg		99	70 - 130	2	35
Toluene	<0.00201	U	0.0998	0.09590		mg/Kg		96	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0998	0.09046		mg/Kg		91	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1805		mg/Kg		90	70 - 130	5	35
o-Xylene	<0.00201	U	0.0998	0.08776		mg/Kg		88	70 - 130	4	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

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

Lab Sample ID: MB 880-26030/1-A

Matrix: Solid

Analysis Batch: 26020

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/23/22 08:26	05/23/22 10:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/23/22 08:26	05/23/22 10:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/23/22 08:26	05/23/22 10:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	05/23/22 08:26	05/23/22 10:03	1
o-Terphenyl	114		70 - 130	05/23/22 08:26	05/23/22 10:03	1

Lab Sample ID: LCS 880-26030/2-A

Matrix: Solid

Analysis Batch: 26020

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1073		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1058		mg/Kg		106	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

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

Lab Sample ID: LCS 880-26030/2-A
Matrix: Solid
Analysis Batch: 26020

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26030

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

Lab Sample ID: LCSD 880-26030/3-A
Matrix: Solid
Analysis Batch: 26020

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26030

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	844.8	*1	mg/Kg		84	70 - 130	24	20
Diesel Range Organics (Over C10-C28)	1000	877.5		mg/Kg		88	70 - 130	19	20

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

Lab Sample ID: 890-2327-A-21-B MS
Matrix: Solid
Analysis Batch: 26020

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 26030

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	1000	1181		mg/Kg		115	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1228		mg/Kg		123	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	114		70 - 130

Lab Sample ID: 890-2327-A-21-C MSD
Matrix: Solid
Analysis Batch: 26020

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 26030

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	999	1023		mg/Kg		100	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1081		mg/Kg		108	70 - 130	13	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	101		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26108/1-A

Matrix: Solid

Analysis Batch: 26223

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/25/22 17:22	1

Lab Sample ID: LCS 880-26108/2-A

Matrix: Solid

Analysis Batch: 26223

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	248.9		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-26108/3-A

Matrix: Solid

Analysis Batch: 26223

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	169.4	*- *1	mg/Kg		68	90 - 110	38	20

Lab Sample ID: 890-2329-3 MS

Matrix: Solid

Analysis Batch: 26223

Client Sample ID: FS03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	170	*- *1	250	407.4		mg/Kg		95	90 - 110

Lab Sample ID: 890-2329-3 MSD

Matrix: Solid

Analysis Batch: 26223

Client Sample ID: FS03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	170	*- *1	250	407.0		mg/Kg		95	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

GC VOA

Prep Batch: 25990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2329-1	FS01	Total/NA	Solid	5035	
890-2329-2	FS02	Total/NA	Solid	5035	
890-2329-3	FS03	Total/NA	Solid	5035	
890-2329-4	FS04	Total/NA	Solid	5035	
890-2329-5	FS18	Total/NA	Solid	5035	
MB 880-25990/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25990/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25990/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2327-A-1-I MS	Matrix Spike	Total/NA	Solid	5035	
890-2327-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 26082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2329-1	FS01	Total/NA	Solid	8021B	25990
890-2329-2	FS02	Total/NA	Solid	8021B	25990
890-2329-3	FS03	Total/NA	Solid	8021B	25990
890-2329-4	FS04	Total/NA	Solid	8021B	25990
890-2329-5	FS18	Total/NA	Solid	8021B	25990
MB 880-25990/5-A	Method Blank	Total/NA	Solid	8021B	25990
LCS 880-25990/1-A	Lab Control Sample	Total/NA	Solid	8021B	25990
LCSD 880-25990/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25990
890-2327-A-1-I MS	Matrix Spike	Total/NA	Solid	8021B	25990
890-2327-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	25990

Analysis Batch: 26177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2329-1	FS01	Total/NA	Solid	Total BTEX	
890-2329-2	FS02	Total/NA	Solid	Total BTEX	
890-2329-3	FS03	Total/NA	Solid	Total BTEX	
890-2329-4	FS04	Total/NA	Solid	Total BTEX	
890-2329-5	FS18	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 26020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2329-1	FS01	Total/NA	Solid	8015B NM	26030
890-2329-2	FS02	Total/NA	Solid	8015B NM	26030
890-2329-3	FS03	Total/NA	Solid	8015B NM	26030
890-2329-4	FS04	Total/NA	Solid	8015B NM	26030
890-2329-5	FS18	Total/NA	Solid	8015B NM	26030
MB 880-26030/1-A	Method Blank	Total/NA	Solid	8015B NM	26030
LCS 880-26030/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26030
LCSD 880-26030/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26030
890-2327-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	26030
890-2327-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26030

Prep Batch: 26030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2329-1	FS01	Total/NA	Solid	8015NM Prep	
890-2329-2	FS02	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

GC Semi VOA (Continued)

Prep Batch: 26030 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2329-3	FS03	Total/NA	Solid	8015NM Prep	
890-2329-4	FS04	Total/NA	Solid	8015NM Prep	
890-2329-5	FS18	Total/NA	Solid	8015NM Prep	
MB 880-26030/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26030/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26030/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2327-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2327-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 26156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2329-1	FS01	Total/NA	Solid	8015 NM	
890-2329-2	FS02	Total/NA	Solid	8015 NM	
890-2329-3	FS03	Total/NA	Solid	8015 NM	
890-2329-4	FS04	Total/NA	Solid	8015 NM	
890-2329-5	FS18	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 26108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2329-1	FS01	Soluble	Solid	DI Leach	
890-2329-2	FS02	Soluble	Solid	DI Leach	
890-2329-3	FS03	Soluble	Solid	DI Leach	
890-2329-4	FS04	Soluble	Solid	DI Leach	
890-2329-5	FS18	Soluble	Solid	DI Leach	
MB 880-26108/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26108/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26108/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2329-3 MS	FS03	Soluble	Solid	DI Leach	
890-2329-3 MSD	FS03	Soluble	Solid	DI Leach	

Analysis Batch: 26223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2329-1	FS01	Soluble	Solid	300.0	26108
890-2329-2	FS02	Soluble	Solid	300.0	26108
890-2329-3	FS03	Soluble	Solid	300.0	26108
890-2329-4	FS04	Soluble	Solid	300.0	26108
890-2329-5	FS18	Soluble	Solid	300.0	26108
MB 880-26108/1-A	Method Blank	Soluble	Solid	300.0	26108
LCS 880-26108/2-A	Lab Control Sample	Soluble	Solid	300.0	26108
LCSD 880-26108/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26108
890-2329-3 MS	FS03	Soluble	Solid	300.0	26108
890-2329-3 MSD	FS03	Soluble	Solid	300.0	26108

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Client Sample ID: FS01

Lab Sample ID: 890-2329-1

Date Collected: 05/19/22 10:30

Matrix: Solid

Date Received: 05/20/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	25990	05/23/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			26082	05/23/22 23:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26177	05/24/22 11:57	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26156	05/24/22 09:49	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26030	05/23/22 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26020	05/23/22 17:17	SM	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	26108	05/23/22 16:45	SC	XEN MID
Soluble	Analysis	300.0		1			26223	05/25/22 19:14	CH	XEN MID

Client Sample ID: FS02

Lab Sample ID: 890-2329-2

Date Collected: 05/19/22 12:45

Matrix: Solid

Date Received: 05/20/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	25990	05/23/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			26082	05/24/22 00:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26177	05/24/22 11:57	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26156	05/24/22 09:49	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26030	05/23/22 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26020	05/23/22 17:39	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	26108	05/23/22 16:45	SC	XEN MID
Soluble	Analysis	300.0		1			26223	05/25/22 20:35	CH	XEN MID

Client Sample ID: FS03

Lab Sample ID: 890-2329-3

Date Collected: 05/19/22 12:50

Matrix: Solid

Date Received: 05/20/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	25990	05/23/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			26082	05/24/22 00:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26177	05/24/22 11:57	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26156	05/24/22 09:49	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26030	05/23/22 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26020	05/23/22 18:01	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	26108	05/23/22 16:45	SC	XEN MID
Soluble	Analysis	300.0		1			26223	05/25/22 20:42	CH	XEN MID

Client Sample ID: FS04

Lab Sample ID: 890-2329-4

Date Collected: 05/19/22 12:55

Matrix: Solid

Date Received: 05/20/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	25990	05/23/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			26082	05/24/22 00:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26177	05/24/22 11:57	SM	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Client Sample ID: FS04
Date Collected: 05/19/22 12:55
Date Received: 05/20/22 11:35

Lab Sample ID: 890-2329-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			26156	05/24/22 09:49	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	26030	05/23/22 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26020	05/23/22 18:23	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	26108	05/23/22 16:45	SC	XEN MID
Soluble	Analysis	300.0		1			26223	05/25/22 21:05	CH	XEN MID

Client Sample ID: FS18
Date Collected: 05/19/22 13:00
Date Received: 05/20/22 11:35

Lab Sample ID: 890-2329-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	25990	05/23/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			26082	05/24/22 01:21	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26177	05/24/22 11:57	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26156	05/24/22 09:49	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26030	05/23/22 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26020	05/23/22 18:44	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	26108	05/23/22 16:45	SC	XEN MID
Soluble	Analysis	300.0		1			26223	05/25/22 21:12	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
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

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

Sample Summary

Client: Ensolum
Project/Site: NORTH BRUSHY 35-2H

Job ID: 890-2329-1
SDG: 03A1987005

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2329-1	FS01	Solid	05/19/22 10:30	05/20/22 11:35	4
890-2329-2	FS02	Solid	05/19/22 12:45	05/20/22 11:35	4
890-2329-3	FS03	Solid	05/19/22 12:50	05/20/22 11:35	4.5
890-2329-4	FS04	Solid	05/19/22 12:55	05/20/22 11:35	4 - 4.5
890-2329-5	FS18	Solid	05/19/22 13:00	05/20/22 11:35	3.5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

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



Environment Testing
Xenco

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager: Anna Byers		Bill to: (if different)		Company Name: WPX		Project Number: 322 National Parks Hwy		Address: 5315 Buena Vista Dr.		City, State ZIP: Carlsbad, NM 88228		Phone: 575-288-6754		Email: abyers@xensolum.com	
Company Name: Ensolum		Company Name: WPX		Project Number: 322 National Parks Hwy		Address: 5315 Buena Vista Dr.		City, State ZIP: Carlsbad, NM 88228		Phone: 575-288-6754		Email: abyers@xensolum.com			
Address: 322 National Parks Hwy		Address: 5315 Buena Vista Dr.		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228	
City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228	
Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754	
Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com	

Project Manager: Anna Byers		Bill to: (if different)		Company Name: WPX		Project Number: 322 National Parks Hwy		Address: 5315 Buena Vista Dr.		City, State ZIP: Carlsbad, NM 88228		Phone: 575-288-6754		Email: abyers@xensolum.com	
Company Name: Ensolum		Company Name: WPX		Project Number: 322 National Parks Hwy		Address: 5315 Buena Vista Dr.		City, State ZIP: Carlsbad, NM 88228		Phone: 575-288-6754		Email: abyers@xensolum.com			
Address: 322 National Parks Hwy		Address: 5315 Buena Vista Dr.		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228	
City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228		City, State ZIP: Carlsbad, NM 88228	
Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754		Phone: 575-288-6754	
Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com		Email: abyers@xensolum.com	

Project Name: North Brushy 35-2H		Turn Around		Pres. Code		ANALYSIS REQUEST		Preservative Codes	
Project Number: 03A1987005		Routine <input checked="" type="checkbox"/> Rush						None: NO DI Water: H ₂ O	
Project Location: Eddy County, NM		Due Date:						Cool: Cool MeOH: Me	
Sampler's Name: Anna Byers		TAT starts the day received by the lab, if received by 4:30pm						HCL: HC HNO ₃ : HN	
PP#00 00		Temp Blank: <input checked="" type="checkbox"/> No		Thermometer ID: TV00-07				H ₂ SO ₄ : H ₂ NaOH: Na	
Samples Received Intact: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Correction Factor: N/A		Temperature Reading: 1.6				H ₃ PO ₄ : HP	
Cooler Custody Seals: Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Corrected Temperature: 1.4						NaHSO ₄ : NABIS	
Sample Custody Seals: Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A								Na ₂ S ₂ O ₃ : NaSO ₃	
Total Containers: 1								Zn Acetate+NaOH: Zn	
								NaOH+Ascorbic Acid: SAPC	



890-2329 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Pres. Code	ANALYSIS REQUEST	Preservative Codes	Sample Comments
F501	S	5/19/22	18:30	4'	Comp	1	Chloride (EPA 800.0)			None: NO	Incident ID:
F502	S	5/19/22	18:30	4'	Comp	1	BTEX (EPA 802.1 B)			Cool: Cool	NRM201414787
F503	S	5/19/22	18:30	4.5'	Comp	1	TH (EPA 801.5 mcl)			HCL: HC	
F504	S	5/19/22	18:30	4.5'	Comp	1				H ₂ SO ₄ : H ₂	
F505	S	5/19/22	18:30	3.5'	Comp	1				H ₃ PO ₄ : HP	
F506	S	5/19/22	18:30	3.5'	Comp	1				NaHSO ₄ : NABIS	
F507	S	5/19/22	18:30	3.5'	Comp	1				Na ₂ S ₂ O ₃ : NaSO ₃	
F508	S	5/19/22	18:30	3.5'	Comp	1				Zn Acetate+NaOH: Zn	
F509	S	5/19/22	18:30	3.5'	Comp	1				NaOH+Ascorbic Acid: SAPC	

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010 : 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471	

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Anna Byers		5/19/22 12:10			5/19/22 12:10

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad

1089 N Canal St.

Carlsbad NM 88220

Phone, 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment "Testing" America

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No					
Client Contact:	Phone:		Kramer Jessica		890-764 1					
Shipping/Receiving			E-Mail	State of Origin	Page:					
Company	Eurofins Environment Testing South Cent		Jessica Kramer@el.eurofinsus.com	New Mexico	Page 1 of 1					
Address	1211 W Florida Ave	Due Date Requested	5/26/2022	Accreditations Required (See note):	Job #:					
City	TX, 79701	TAI Requested (days):		NE LAP - Texas	890-2329-1					
State Zip										
Phone	432-704-5440(Tel)	PO #								
Email		WO #								
Project Name	NORTH BRUSHY 35-2H	Project #	89000084							
Site		SSOW#								
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=metal, BT=Trace, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note
FS01 (890-2329-1)	5/19/22	10 30	Mountain	Solid		X	X	X	X	
FS02 (890-2329-2)	5/19/22	12 45	Mountain	Solid		X	X	X	X	
FS03 (890-2329-3)	5/19/22	12 50	Mountain	Solid		X	X	X	X	
FS04 (890-2329-4)	5/19/22	12 55	Mountain	Solid		X	X	X	X	
FS18 (890-2329-5)	5/19/22	13 00	Mountain	Solid		X	X	X	X	
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon out-subcontracted laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis, the matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.										
Possible Hazard Identification										
Unconfirmed										
Deliverable Requested	I II III IV Other (Specify)	Primary Deliverable Rank	2	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
Empty Kit Reinquished by		Date		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Reinquished by	Olivas	Date/Time	5-20-22	Received by	Kramer	Date/Time	5/23/22	800		
Reinquished by		Date/Time		Received by		Date/Time				
Reinquished by		Date/Time		Received by		Date/Time				
Custody Seals Intact:	Custody Seal No	Cooler Temperature(s) °C and Other Remarks								
A Yes A No		9/1/19								

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2329-1

SDG Number: 03A1987005

Login Number: 2329

List Number: 1

Creator: Olivas, Nathaniel

List Source: Eurofins Carlsbad

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: 890-2329-1

SDG Number: 03A1987005

Login Number: 2329

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 05/23/22 08:18 AM

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	2.1/1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



APPENDIX F

Email Correspondence

Anna Byers

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Tuesday, April 19, 2022 7:15 AM
To: Anna Byers
Cc: Raley, Jim; Devon-Team; Bratcher, Mike, EMNRD; Nobui, Jennifer, EMNRD
Subject: RE: [EXTERNAL] WPX Site Activity Update for Week of April 18, 2022

[**EXTERNAL EMAIL**]

Anna,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Anna Byers <abyers@ensolum.com>
Sent: Monday, April 18, 2022 11:30 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: Raley, Jim <Jim.Raley@dvn.com>; Devon-Team <Devon-Team@ensolum.com>
Subject: [EXTERNAL] WPX Site Activity Update for Week of April 18, 2022

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

WPX anticipates conducting final confirmation soil sampling activities at the following sites between April 20-22, 2022:

Ensolum

Site: North Brushy Draw Federal 35 #002H
API: 30-015-40006
Incident Number: NRM2014147987

Site: North Brushy Draw Federal 35 #009H
API: 30-015-42220

Incident Number: NRM2020657799

Thank you,



Anna Byers
Project Geologist
575-200-6754
Ensolum, LLC
in f t

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Monday, April 18, 2022 9:54 AM
To: Joseph Hernandez <jhernandez@ensolum.com>
Cc: Raley, Jim <Jim.Raley@dmv.com>; Devon-Team <Devon-Team@ensolum.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: RE: [EXTERNAL] WPX Site Activity Update for Week of April 18, 2022

[**EXTERNAL EMAIL**]

Joseph,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Monday, April 18, 2022 9:02 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: Fw: [EXTERNAL] WPX Site Activity Update for Week of April 18, 2022

From: Joseph Hernandez <jhernandez@ensolum.com>
Sent: Friday, April 15, 2022 2:27 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: Raley, Jim <Jim.Raley@dmv.com>; Devon-Team <Devon-Team@ensolum.com>
Subject: [EXTERNAL] WPX Site Activity Update for Week of April 18, 2022

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

WPX anticipates conducting final confirmation soil sampling activities at the following site between April 18-22, 2022:

Ensolum

Site: Pecos Federal #001Y

API: 30-015-24875

Incident Number: nAPP2208846424



Joseph Hernandez

Senior Geologist

281-702-2329

Ensolum, LLC



From: [Hamlet, Robert, EMNRD](#)
To: [Anna Byers](#)
Cc: [Jim Raley](#); [Joseph Hernandez](#); [Gilbert Moreno](#); [Bratcher, Mike, EMNRD](#); [Nobui, Jennifer, EMNRD](#)
Subject: RE: [EXTERNAL] WPX Site Activity Update for Week of April 25, 2022
Date: Monday, April 25, 2022 9:55:15 AM

[**EXTERNAL EMAIL **]

Anna,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Anna Byers <abyers@ensolum.com>
Sent: Friday, April 22, 2022 4:07 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Cc: Jim Raley <jim.raley@dvn.com>; Joseph Hernandez <jhernandez@ensolum.com>; Gilbert Moreno <gmoreno@ensolum.com>
Subject: [EXTERNAL] WPX Site Activity Update for Week of April 25, 2022

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

WPX anticipates conducting final confirmation soil sampling activities at the following sites between April 25-29, 2022:

Ensolum

Site: North Brushy Draw Federal 35 #002H
API: [30-015-40006](#)
Incident Number: NRM2014147987

Site: North Brushy Draw Federal 35 #009H
API: [30-015-42220](#)
Incident Number: NRM2020657799

Thank you,

Anna Byers
Project Geologist
575-200-6754
Ensolum, LLC

From: [Hamlet, Robert, EMNRD](#)
To: [Anna Byers](#)
Cc: [Jim Raley](#); [Joseph Hernandez](#); [Ben Belill](#); [Bratcher, Mike, EMNRD](#); [Nobui, Jennifer, EMNRD](#)
Subject: RE: [EXTERNAL] WPX Site Activity Update for Week of May 2, 2022
Date: Thursday, April 28, 2022 10:00:33 AM
Attachments: [image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

[**EXTERNAL EMAIL**]

Anna,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Thursday, April 28, 2022 9:15 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: Fw: [EXTERNAL] WPX Site Activity Update for Week of May 2, 2022

From: Anna Byers <abyers@ensolum.com>
Sent: Thursday, April 28, 2022 9:09 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: jim.raley@dmv.com <jim.raley@dmv.com>; Joseph Hernandez <jhernandez@ensolum.com>; Ben Belill <bbelill@ensolum.com>
Subject: [EXTERNAL] WPX Site Activity Update for Week of May 2, 2022

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning,

WPX anticipates conducting final confirmation soil sampling activities at the following sites between May 2-6, 2022:

Ensolum

Site: North Brushy Draw Federal 35 #002H

API: [30-015-40006](#)

Incident Number: NRM2014147987

Site: North Brushy Draw Federal 35 #009H

API: [30-015-42220](#)

Incident Number: NRM2020657799

Site: North Brushy Draw Federal 35#012H

API: [30-015-43603](#)

Incident Number: nAPP2208844411


Site: East Pecos Federal 22 #003H

API: [30-015-42285](#)

Incident Number: nAPP2123361366

Thank you,



Anna Byers
Project Geologist
575-200-6754
Ensolum, LLC
in f 

From: [Joseph Hernandez](#)
To: ocd.enviro@state.nm.us
Cc: [Raley, Jim](#); [Anna Byers](#); [Ben Belill](#)
Subject: RE: WPX Site Activity Update for Week of May 16th, 2022
Date: Monday, May 16, 2022 1:35:37 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

Good afternoon,

WPX also anticipates conducting final soil sampling activities at the following site this week:

Site: Ross Draw Unit 34

API: 30-015-41578

Incident Numbers: nAPP2107554265, NAB1736055339 and NAB1528240224

Thank you,



Joseph Hernandez

Senior Geologist

281-702-2329

Ensolum, LLC

in f 

From: Joseph Hernandez
Sent: Friday, May 13, 2022 9:20 AM
To: ocd.enviro@state.nm.us
Cc: [Raley, Jim](#) <Jim.Raley@dmv.com>; [Anna Byers](#) <abyers@ensolum.com>; [Ben Belill](#) <bbelill@ensolum.com>
Subject: WPX Site Activity Update for Week of May 16th, 2022

Good morning,

WPX anticipates conducting final confirmation soil sampling activities at the following sites between May 18th – 20th, 2022.

Ensolum

Site: North Brushy Draw Federal 35 #002H

API: [30-015-40006](#)

Incident Number: NRM2014147987

Site: Pecos Federal #001Y

API: 30-015-24875

Incident Number: nAPP2208846424

Thank you,



Joseph Hernandez

Senior Geologist

281-702-2329

Ensolum, LLC

in f 

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

District IV

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 179217

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 179217
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	WPX's deferral requests to complete final remediation during any future major construction/alteration or final plugging/abandonment, whichever occurs first. Ensolum and WPX do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The area requested for deferral is "SW02". The area has been delineated and documented in the report. At this time, OCD approves this request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue. This is a federal site and will require like approval from the BLM.	5/23/2023