

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	NAPP2224236187
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Garrett Green	Contact Telephone 575-200-0729
Contact email garrett.green@exxonmobil.com	Incident # (assigned by OCD)
Contact mailing address 3104 E. Greene Street, Carlsbad, New Mexico, 88220	

Location of Release Source

Latitude 32.31651° Longitude -103.94173°  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Nash Unit 36	Site Type Production Well
Date Release Discovered 08/17/2022	API# (if applicable)

Unit Letter	Section	Township	Range	County
K	12	23S	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 checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 7.09	Volume Recovered (bbls) 5.76
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 51.99	Volume Recovered (bbls) 42.24
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" 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  
Worn equipment caused the stuffing box to release fluids to well pad. A vacuum truck recovered all free fluids. A third-party contractor has been retained for remediation purposes.


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Oil Conservation Division

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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? A release greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by Jake Foust to ocd.enviro@state.nm.us, Mike Bratcher, and Robert Hamlet on 08/18/2022 via email.	

### 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: NA	
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>Garrett Green</u>	Title: <u>SSHE Coordinator</u>
Signature: <u></u>	Date: <u>8/29/2022</u>
email: <u>garrett.green@exxonmobil.com</u>	Telephone: <u>575-200-0729</u>
<b><u>OCD Only</u></b>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>08/30/2022</u>

<b>Location:</b>	<b>Nash Unit 36</b>	
<b>Spill Date:</b>	<b>8/17/2022</b>	
<b>Area 1</b>		
Approximate Area =	8297.00	sq. ft.
Average Saturation (or depth) of spill =	3.00	inches
Average Porosity Factor =	0.03	
<b>VOLUME OF LEAK</b>		
Total Crude Oil =	7.09	bbls
Total Produced Water =	51.99	bbls
<b>TOTAL VOLUME OF LEAK</b>		
Total Crude Oil =	7.09	bbls
Total Produced Water =	51.99	bbls
<b>TOTAL VOLUME RECOVERED</b>		
Total Crude Oil =	5.76	bbls
Total Produced Water =	42.24	bbls

**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 139363

CONDITIONS

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  139363
	Action Type:  [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	8/31/2022



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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?	<u>&lt;50</u> (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 checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> 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

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Printed Name: \_Garrett Green\_\_\_\_\_ Title: \_Environmental Coordinator\_\_\_\_\_

Signature:  Date: \_\_\_2/13/2023\_\_\_\_\_

email: \_garrett.green@exxonmobil.com\_\_\_\_\_ Telephone: \_\_\_575-200-0729\_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Jocelyn Harimon \_\_\_\_\_ Date: \_\_\_02/13/2023\_\_\_\_\_

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## 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: Garrett Green Title: Environmental Coordinator  
Signature:  Date: 2/23/2023  
email: garrett.green@exxonmobil.com Telephone: 575-200-0729

**OCD Only**

Received by: Jocelyn Harimon Date: 02/13/2023

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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## Remediation Plan


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- ☒ Estimated volume of material to be remediated
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- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

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Printed Name: Garrett Green Title: Environmental Coordinator  
Signature:  Date: 2/23/2023  
email: garrett.green@exxonmobil.com Telephone: 575-200-0729

**OCD Only**

Received by: Jocelyn Harimon Date: 02/13/2023

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

Signature:  Date: 6/14/2023

Incident ID	NAPP2224236187
District RP	
Facility ID	
Application ID	

## Closure

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

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Garrett Green

Title: SSHE Coordinator

Signature: 

Date: 9/11/2023

email: garrett.green@exxonmobil.com

Telephone: 575-200-0729

**OCD Only**

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_



September 11, 2023

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

**Re: Closure Request  
Nash Unit 36  
Incident Number NAPP2224236187  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Closure Request* to document remedial actions completed to address impacted soil identified at the Nash Unit 36 (Site) following the New Mexico Oil Conservation Division (NMOCD) approval of the February 13, 2023 *Remediation Work Plan*. The purpose of remedial actions was to address impacted soil resulting from a release of crude oil and produced water at the Site. Based on excavation activities and soil sample laboratory analytical results, XTO is submitting this Closure Request, describing remediation activities that have occurred and requesting no further action for Incident Number NAPP2224236187.

#### **SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit K, Section 12, Township 23 South, Range 29 East, in Eddy County, New Mexico (32.31651°, -103.94173°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On August 17, 2022, worn equipment caused the stuffing box to release 7.09 barrels (bbls) of crude oil and 51.99 bbls produced water onto the well pad surface. A vacuum truck was dispatched to the Site and recovered approximately 5.76 bbls of crude oil and 42.24 bbls of produced water. XTO immediately reported the release to the NMOCD via email on August 18, 2022 and submitted a Release Notification Form C-141 (Form C-141) on August 29, 2022. The release was assigned Incident Number nAPP2224236187.

Between September 28, 2022, and November 18, 2022, Ensolum personnel conducted Site assessment activities to evaluate the release extent based on information provided on the Form C-141 and visual observations. Results of the assessments were presented in the February 2023 *Remediation Work Plan* (Work Plan) and were conditionally approved by NMOCD on June 14, 2023 with the following conditions of approval:

*The Remediation Plan is Conditionally Approved. Due to high karst and shallow groundwater, the release needs to meet the strictest closure criteria standards. The proposed background chloride concentration of 14,600 mg/kg is denied. The background numbers at a depth of 1 foot should be averaged. The background numbers at a depth of 2 feet should be averaged and so on. The composite numbers will be used for the final background chloride numbers. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Collect confirmation*

XTO Energy, Inc.  
Closure Request  
Nash Unit 36

samples, representing no more than 200 ft<sup>2</sup>. A closure report will need to be completed and uploaded within 90 days.

## SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Based on the results of the Site Characterization and the approved *Work Plan*, the following NMOCD Table I 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 hydrocarbons (TPH): 100 mg/kg

Based on the proximity of the Site to a salt lake (approximately 80 feet northwest of the well pad), naturally occurring chloride concentrations in the area were assessed. A total of four background potholes (PH01 through PH04, see Figure 2) were advanced off pad, in areas that did not appear to be disturbed by oil and gas operations, to depths ranging from 1-foot to 4 feet bgs. Laboratory analytical results indicated naturally occurring chloride concentrations in soil in undisturbed areas ranged from 3,050 mg/kg in PH02A to 14,600 mg/kg. Per the NMOCD's conditions of approval, chloride concentrations for each depth sampled was averaged and utilized for comparing soil analytical results following excavation activities. The following summarizes average chloride concentrations by depth:

- Ground surface to 1-foot bgs: 8,088 mg/kg;
- 2 feet bgs: 5,035 mg/kg;
- 3 feet bgs: 5,657 mg/kg; and
- 4 feet bgs: 6,255 mg/kg

As such, these concentrations were utilized as the Site-specific chloride Closure Criteria for excavation confirmation sampling. It should be noted, those background soil samples collected from potholes PH01 through PH04 with concentrations higher than the average, but within the presented range of background concentrations, were not deemed to be "exceeding the Site-specific" Closure Criteria.

## EXCAVATION ACTIVITIES

Between November 7 and December 6, 2022, Ensolum personnel oversaw excavation of impacted soil utilizing a backhoe, track hoe, and transport vehicles. Excavation activities were directed by delineation soil sample results and field screening results for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The excavation was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 3. Photographic documentation was completed and a photographic log is included in Appendix A.

The initial excavation depth ranged from 0.5 feet to 1-foot bgs. Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewall of the excavation extent. 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.



XTO Energy, Inc.  
Closure Request  
Nash Unit 36

Confirmation soil samples FS01 and FS51 were collected from the floor of the excavation at depths ranging from 0.5 feet to 1-foot bgs. Since the initial excavation was completed to 1-foot bgs or less, soil from the sidewalls of the excavation were incorporated into the floor soil sample composites. The confirmation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 3.

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

Laboratory analytical results for initial confirmation soil samples indicated all floor soil samples were in compliance with the Closure Criteria and/or Site-specific Closure Criteria for chloride with the exception of floor soil samples FS29, FS32, and FS45. Between February 10, 2023 and August 14, 2023, additional excavation of impacted soil was completed. The length of time to complete all excavation activities was due to the pending Work Plan and final review of the conditions of approval from the NMOCD.

Final depths of the excavation ranged from 0.5 feet to 3 feet bgs. Subsequent laboratory analytical results for confirmation floor soil samples FS29C (sampled at 3 feet bgs), FS32A (sampled at 1.5 feet bgs), and FS45A (sampled at 1-foot bgs) as well as sidewall soil sample SW01 (collected at depths ranging from the ground surface to 3 feet bgs in the vicinity of floor soil sample FS29C@3') indicated all COCs were compliant with the Closure Criteria and/or the Site-specific Closure Criteria for chloride. All confirmation soil sample locations are depicted on Figure 3. Laboratory analytical results are summarized in Table 1 and the laboratory analytical reports and chain-of-custody documentation are presented in Appendix B. NMOCD notifications are presented in Appendix C.

The final excavation area measured approximately 9,875 square feet in areal extent. A total of approximately 275 cubic yards of impacted soil were removed during all excavation activities and properly transported and disposed of at R360 in Hobbs, New Mexico.

## CLOSURE REQUEST

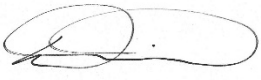
XTO has followed through the February 2023 Work Plan and conditions of approval by the NMOCD. Following initial assessment activities at the Site and evaluation of naturally occurring chloride in soil at and around the Site based on its proximity to a salt lake, proper removal of impacted soil occurred with confirmation soil samples indicating as such. Remedial actions completed at the Site have addressed impacted soil stemming from the August 2022 release of crude oil and produced water. Excavation of impacted soil has been protective of human health, the environment, and groundwater. As such, XTO is respectfully requesting no further action for Incident Number NAPP2224236187.



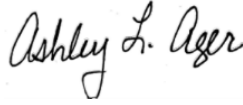
XTO Energy, Inc.  
Closure Request  
Nash Unit 36

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

Sincerely,  
**Ensolum, LLC**



Daniel R. Moir, PG  
Senior Managing Geologist



Ashley Ager, MS, PG  
Principal

cc: Garrett Green, XTO  
Shelby Pennington, XTO  
BLM

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Photographic Log
Appendix B	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix C	NMOCD Notifications



Figures

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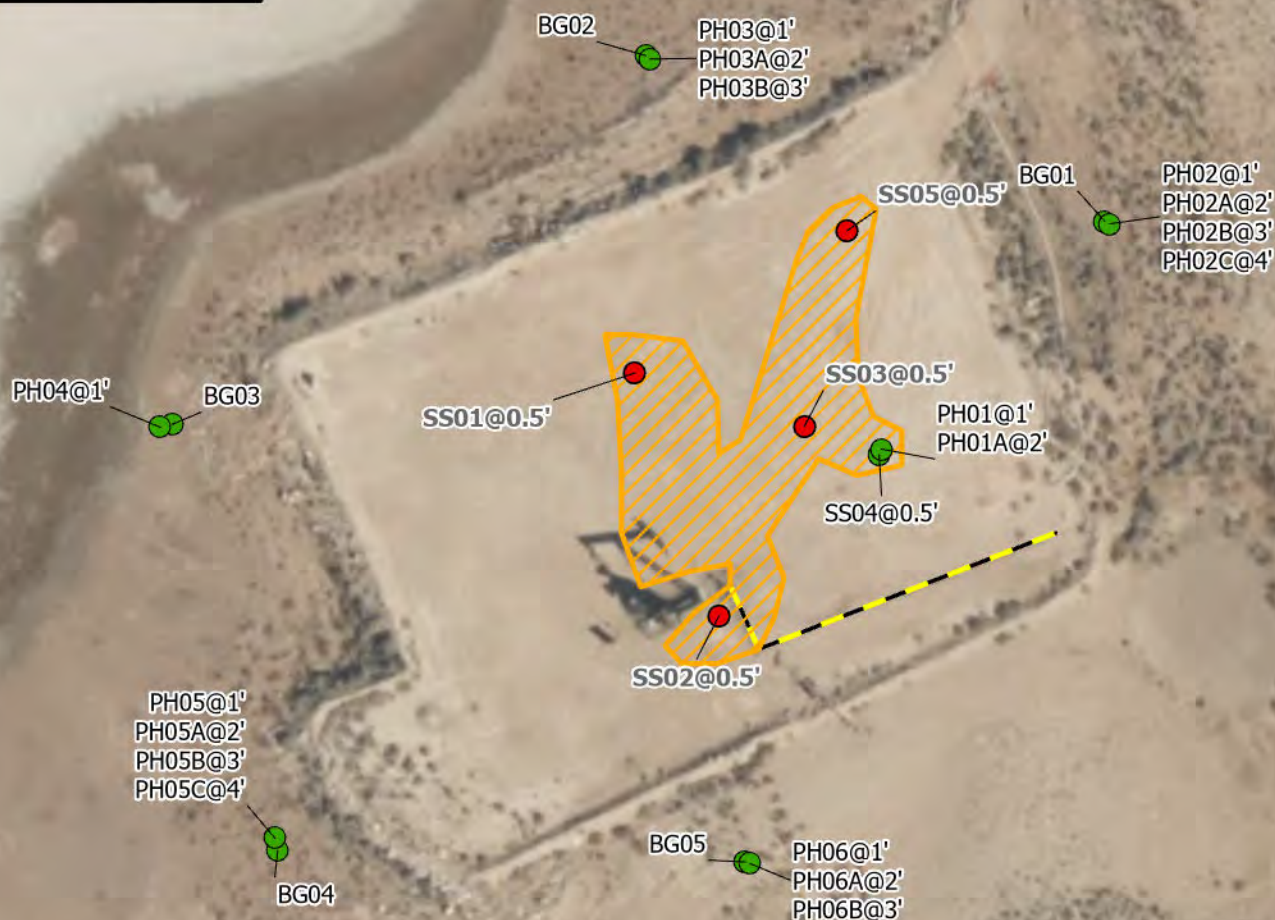






**Legend**

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Exceeding Closure Criteria
- Pipeline/Line/Utility
- Release Extent selection



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable closure criteria.  
 Samples in grey indicate samples were removed during excavation activities.

0 40 80 160  
 Feet

Sources: Environmental Systems Research Institute (ESRI)



## Delineation Soil Sample Locations

XTO Energy INC.  
 Nash Unit 36  
 Incident Number: NAPP2224236187  
 Unit K, Sec 12, T23S, R19E  
 Eddy County, New Mexico

**FIGURE**  
**2**







Table



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**Nash Unit 36**  
**XTO Energy, Inc.**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Averaged Natural Chloride Concentrations per Depth: <1 foot bgs = 8,088 mg/kg; 2 feet bgs = 5,035 mg/kg; 3 feet bgs = 5,657 mg/kg; 4 feet bgs = 6,255 mg/kg										
Delineation Soil Samples										
SS01	09/28/2022	0.5	<0.00201	<0.00402	<250	18700	3280	18,700	22,000	312
SS02	09/28/2022	0.5	<0.00198	<0.00396	<249	15300	2360	15,300	17,700	119
SS03	09/28/2022	0.5	<0.00199	0.0964	<250	9120	1670	9,120	10,800	208
SS04	09/28/2022	0.5	<0.00200	<0.00399	<49.9	68.1	<49.9	68.1	68.1	145
SS05	09/28/2022	0.5	<0.00199	<0.00398	<250	12200	1860	12,200	14,100	128
PH01	11/18/2022	1	NA	NA	NA	NA	NA	NA	NA	476
PH01A	11/18/2022	2	NA	NA	NA	NA	NA	NA	NA	1,240
PH02	11/18/2022	1	NA	NA	NA	NA	NA	NA	NA	4,430
PH02A	11/18/2022	2	NA	NA	NA	NA	NA	NA	NA	3,050
PH02B	11/18/2022	3	NA	NA	NA	NA	NA	NA	NA	6,460
PH02C	11/18/2022	4	NA	NA	NA	NA	NA	NA	NA	4,860
PH03	11/18/2022	1	NA	NA	NA	NA	NA	NA	NA	7,870
PH03A	11/18/2022	2	NA	NA	NA	NA	NA	NA	NA	7,520
PH03B	11/18/2022	3	NA	NA	NA	NA	NA	NA	NA	4,730
PH04	11/18/2022	1	NA	NA	NA	NA	NA	NA	NA	14,600
PH05	11/18/2022	1	NA	NA	NA	NA	NA	NA	NA	10,100
PH05A	11/18/2022	2	NA	NA	NA	NA	NA	NA	NA	5,160
PH05B	11/18/2022	3	NA	NA	NA	NA	NA	NA	NA	7,330
PH05C	11/18/2022	4	NA	NA	NA	NA	NA	NA	NA	7,650
PH06	11/18/2022	1	NA	NA	NA	NA	NA	NA	NA	3,440
PH06A	11/18/2022	2	NA	NA	NA	NA	NA	NA	NA	4,410
PH06B	11/18/2022	3	NA	NA	NA	NA	NA	NA	NA	4,110
Confirmation Soil Samples										
FS01	11/07/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	1,840
FS02	11/07/2022	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	2,160
FS03	11/07/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	304
FS04	11/07/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	337
FS05	11/07/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	535
FS06	11/07/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	1,940





**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**Nash Unit 36**  
**XTO Energy, Inc.**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS07	11/07/2022	0.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	1,840
FS08	11/07/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,480
FS09	11/07/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	569
FS10	11/07/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	382
FS11	11/07/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	428
FS12	11/07/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	481
FS13	11/07/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	1,670
FS14	11/07/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	3,380
FS15	11/07/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	4,860
FS16	11/07/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	4,110
FS17	11/07/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	5,110
FS18	11/07/2022	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	5,450
FS19	11/07/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	4,120
FS20	11/07/2022	0.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	7,510
FS21	11/07/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	5,820
FS22	11/07/2022	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	5,110
FS23	11/07/2022	0.5	<0.00200	<0.00399	<49.9	59.4	<49.9	59.4	59.4	5,970
FS24	11/08/2022	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	50.7
FS25	11/08/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	7,350
FS26	11/08/2022	1	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	5,330
FS27	11/08/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,590
FS28	11/08/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,440
FS29	11/08/2022	4	<0.00198	<0.00396	<49.9	126	<49.9	126	126	9,550
FS29A	02/10/2023	1.5	<0.00199	<0.00398	<49.8	218	<49.8	218	218	1,430
FS29B	03/16/2023	2	<0.00198	<0.00396	<49.9	220	56	220	276	2,440
FS29C	08/14/2023	3	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	2,810
FS30	11/08/2022	1	<0.00200	<0.00401	<50.0	60.6	<50.0	60.6	60.6	3,950
FS31	11/08/2022	1	<0.00201	<0.00402	<50.0	<50.0	93.7	<50.0	93.7	5,430
FS32	11/08/2022	4	<0.00200	<0.00398	<49.9	71.7	<49.9	71.7	71.7	10,300
FS32A	08/14/2023	1.5	<0.00202	<0.00404	<50.4	62.2	<50.4	62.2	62.2	3,420
FS33	11/08/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	7,130
FS34	11/08/2022	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	6,680





**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**Nash Unit 36**  
**XTO Energy, Inc.**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS35	11/08/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	2,930
FS36	11/08/2022	0.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	7,950
FS37	11/08/2022	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	6,790
FS38	11/08/2022	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	2,560
FS39	11/08/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	4,000
FS40	11/08/2022	0.5	<0.00200	<0.00399	<49.8	62.1	<49.8	62.1	62.1	6,460
FS41	11/08/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	4,650
FS42	11/08/2022	0.5	<0.00199	<0.00398	<49.8	59.2	<49.8	59.2	59.2	6,810
FS43	11/08/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	4,990
FS44	11/08/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	3,730
<del>FS45</del>	<del>11/08/2022</del>	<del>0.5</del>	<del>&lt;0.00199</del>	<del>&lt;0.00398</del>	<del>&lt;50.0</del>	<del>160</del>	<del>&lt;50.0</del>	<del>160</del>	<del>160</del>	<del>5,830</del>
FS45A	02/10/2023	1	<0.00200	<0.00399	<50.0	63.7	<50.0	63.7	63.7	1,510
FS46	11/08/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	5,170
FS47	11/08/2022	1	<0.00201	<0.00402	<50.0	62.6	<50.0	62.6	62.6	5,990
FS48	11/08/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	6,190
FS49	12/06/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	89.0
FS50	12/06/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	232
FS51	12/06/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	310
SW01	08/14/2023	0 - 3	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	2,390

## Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in bold exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

Grey text indicate soil sample removed during excavation activities

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NA: Not Analyzed



## APPENDIX A

### Photographic Log

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## Photographic Log

XTO Energy, Inc

Nash Unit 36

Incident Number NAPP2224236187

Date & Time: Wed, Sep 28, 2022, 13:53:28 MDT  
 Position: +032.316701° N / +103.941323° W (±15.6ft)  
 Altitude: 2995ft (±11.0ft)  
 Datum: WGS-84  
 Azimuth/Bearing: 257° S77W 4569mils True (±15°)  
 Elevation Angle: +01.6°  
 Horizon Angle: +00.2°  
 Zoom: 1.0X  
 Nash 36, release extent looking west



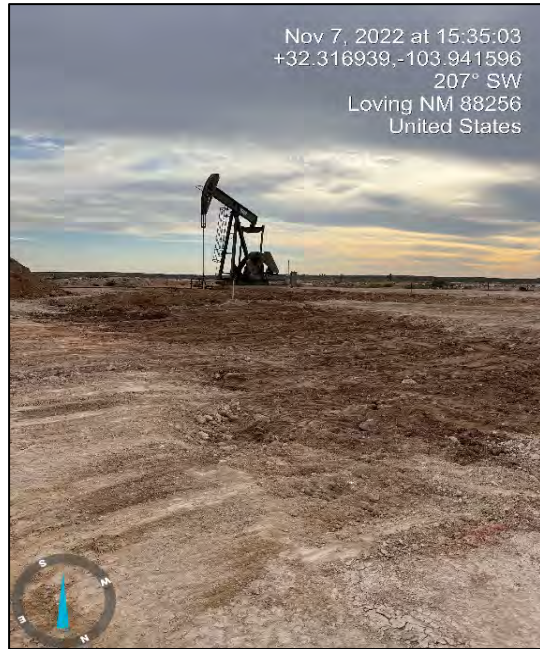
Photograph 1

Date: 9/28/2022

Description: Soil staining in release footprint.

View: West

Nov 7, 2022 at 15:35:03  
 +32.316939, -103.941596  
 207° SW  
 Loving NM 88256  
 United States



Photograph 2

Date: 11/07/2022

Description: Excavation north of Pumpjack

View: Southwest

Date & Time: Mon, Aug 14, 2023 at 12:26:05 MDT  
 Position: +032.316507° N / -103.941817° W (±15.7ft)  
 Altitude: 2994ft (±11.0ft)  
 Datum: WGS-84  
 Azimuth/Bearing: 213° S67W 3629mils True (±15°)  
 Elevation Angle: -29.7°  
 Horizon Angle: +01.1°  
 Zoom: 0.5X  
 excavation west view  
 Marah's O.D. #1



Photograph 3

Date: 8/14/2023

Description: Deeper excavation north of pumpjack.

View: West

Date & Time: Mon, Aug 14, 2023 at 12:26:56 MDT  
 Position: +032.316430° N / -103.941817° W (±15.7ft)  
 Altitude: 2993ft (±10.7ft)  
 Datum: WGS-84  
 Azimuth/Bearing: 014° N14E 0249mils True (±12°)  
 Elevation Angle: +12.0°  
 Horizon Angle: +02.1°  
 Zoom: 0.5X  
 Excavation north view  
 Marah's O.D. #1



Photograph 4

Date: 8/14/2023

Description: Deeper excavation north of pumpjack.

View: North



## APPENDIX B

### Laboratory Analytical Reports & Chain-of-Custody Documentation

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Environment Testing  
America

## ANALYTICAL REPORT

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

Laboratory Job ID: 890-3106-1

Laboratory Sample Delivery Group: 03E1558117

Client Project/Site: NASH UNIT 36

For:

Ensolum  
705 W. Wadley  
Suite 210  
Midland, Texas 79701

Attn: Tacoma Morrissey

Authorized for release by:

10/11/2022 4:18:13 PM

Jessica Kramer, Project Manager  
(432)704-5440

[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://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: NASH UNIT 36

Laboratory Job ID: 890-3106-1  
SDG: 03E1558117

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## Definitions/Glossary

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

## Qualifiers

## GC VOA

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

## GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
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)

Eurofins Carlsbad

Definitions/Glossary

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

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



## Case Narrative

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

**Job ID: 890-3106-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-3106-1****Receipt**

The samples were received on 9/29/2022 8:35 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: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36450 and analytical batch 880-36624 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: o-Xylene biased high in LCSD. Since only an acceptable LCS is required per the method, the data has been qualified and reported.(LCSD 880-36450/2-A)

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 samples were outside control limits: (890-3104-A-1-B MS) and (890-3104-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-3106-1), SS02 (890-3106-2), SS03 (890-3106-3) and SS05 (890-3106-5). 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 880-35819 and analytical batch 880-35738 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-35819 and analytical batch 880-35738 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36006 and analytical batch 880-36264 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: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

Client Sample ID: SS01

Lab Sample ID: 890-3106-1

Date Collected: 09/28/22 14:00

Matrix: Solid

Date Received: 09/29/22 08:35

Sample Depth: 0.5

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/08/22 13:26	10/11/22 14:10	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/08/22 13:26	10/11/22 14:10	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/08/22 13:26	10/11/22 14:10	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/08/22 13:26	10/11/22 14:10	1
o-Xylene	<0.00201	U *	0.00201	mg/Kg		10/08/22 13:26	10/11/22 14:10	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/08/22 13:26	10/11/22 14:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130	10/08/22 13:26	10/11/22 14:10	1
1,4-Difluorobenzene (Surr)	97		70 - 130	10/08/22 13:26	10/11/22 14:10	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/11/22 15:00	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	22000		250	mg/Kg			10/03/22 11:45	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U *1	250	mg/Kg		09/30/22 14:01	10/01/22 03:02	5
Diesel Range Organics (Over C10-C28)	18700		250	mg/Kg		09/30/22 14:01	10/01/22 03:02	5
Oil Range Organics (Over C28-C36)	3280		250	mg/Kg		09/30/22 14:01	10/01/22 03:02	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130	09/30/22 14:01	10/01/22 03:02	5
o-Terphenyl	434	S1+	70 - 130	09/30/22 14:01	10/01/22 03:02	5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	312		4.98	mg/Kg			10/06/22 12:25	1

Client Sample ID: SS02

Lab Sample ID: 890-3106-2

Date Collected: 09/28/22 14:05

Matrix: Solid

Date Received: 09/29/22 08:35

Sample Depth: 0.5

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/08/22 13:26	10/11/22 15:32	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/08/22 13:26	10/11/22 15:32	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/08/22 13:26	10/11/22 15:32	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		10/08/22 13:26	10/11/22 15:32	1
o-Xylene	<0.00198	U *	0.00198	mg/Kg		10/08/22 13:26	10/11/22 15:32	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		10/08/22 13:26	10/11/22 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	10/08/22 13:26	10/11/22 15:32	1

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## Client Sample Results

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

Client Sample ID: SS02

Lab Sample ID: 890-3106-2

Date Collected: 09/28/22 14:05

Matrix: Solid

Date Received: 09/29/22 08:35

Sample Depth: 0.5

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	85		70 - 130	10/08/22 13:26	10/11/22 15:32	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			10/11/22 15:00	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17700		249	mg/Kg			10/03/22 11:45	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U *1	249	mg/Kg		09/30/22 14:01	10/01/22 03:24	5
Diesel Range Organics (Over C10-C28)	15300		249	mg/Kg		09/30/22 14:01	10/01/22 03:24	5
Oil Range Organics (Over C28-C36)	2360		249	mg/Kg		09/30/22 14:01	10/01/22 03:24	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			09/30/22 14:01	10/01/22 03:24	5
o-Terphenyl	292	S1+	70 - 130			09/30/22 14:01	10/01/22 03:24	5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	119		5.05	mg/Kg			10/06/22 12:31	1

Client Sample ID: SS03

Lab Sample ID: 890-3106-3

Date Collected: 09/28/22 14:15

Matrix: Solid

Date Received: 09/29/22 08:35

Sample Depth: 0.5

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/08/22 13:26	10/11/22 15:53	1
Toluene	0.0192		0.00199	mg/Kg		10/08/22 13:26	10/11/22 15:53	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/08/22 13:26	10/11/22 15:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/08/22 13:26	10/11/22 15:53	1
o-Xylene	0.0772	*+	0.00199	mg/Kg		10/08/22 13:26	10/11/22 15:53	1
Xylenes, Total	0.0772		0.00398	mg/Kg		10/08/22 13:26	10/11/22 15:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	10/08/22 13:26	10/11/22 15:53	1
1,4-Difluorobenzene (Surr)	71		70 - 130	10/08/22 13:26	10/11/22 15:53	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0964		0.00398	mg/Kg			10/11/22 15:00	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	10800		250	mg/Kg			10/03/22 11:45	1

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## Client Sample Results

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

Client Sample ID: SS03

Lab Sample ID: 890-3106-3

Date Collected: 09/28/22 14:15

Matrix: Solid

Date Received: 09/29/22 08:35

Sample Depth: 0.5

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U *1	250	mg/Kg		09/30/22 14:01	10/01/22 03:45	5
Diesel Range Organics (Over C10-C28)	9120		250	mg/Kg		09/30/22 14:01	10/01/22 03:45	5
Oil Range Organics (Over C28-C36)	1670		250	mg/Kg		09/30/22 14:01	10/01/22 03:45	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			09/30/22 14:01	10/01/22 03:45	5
o-Terphenyl	193	S1+	70 - 130			09/30/22 14:01	10/01/22 03:45	5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	208		4.96	mg/Kg			10/06/22 12:48	1

Client Sample ID: SS04

Lab Sample ID: 890-3106-4

Date Collected: 09/28/22 14:20

Matrix: Solid

Date Received: 09/29/22 08:35

Sample Depth: 0.5

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 13:26	10/11/22 16:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 13:26	10/11/22 16:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 13:26	10/11/22 16:13	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/08/22 13:26	10/11/22 16:13	1
o-Xylene	<0.00200	U *	0.00200	mg/Kg		10/08/22 13:26	10/11/22 16:13	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/08/22 13:26	10/11/22 16:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130			10/08/22 13:26	10/11/22 16:13	1
1,4-Difluorobenzene (Surr)	72		70 - 130			10/08/22 13:26	10/11/22 16:13	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/11/22 15:00	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	68.1		49.9	mg/Kg			10/03/22 11:45	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		09/30/22 14:01	10/01/22 02:41	1
Diesel Range Organics (Over C10-C28)	68.1		49.9	mg/Kg		09/30/22 14:01	10/01/22 02:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/30/22 14:01	10/01/22 02:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			09/30/22 14:01	10/01/22 02:41	1
o-Terphenyl	94		70 - 130			09/30/22 14:01	10/01/22 02:41	1

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## Client Sample Results

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

Client Sample ID: SS04

Lab Sample ID: 890-3106-4

Date Collected: 09/28/22 14:20

Matrix: Solid

Date Received: 09/29/22 08:35

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	145		4.98	mg/Kg			10/06/22 12:54	1

Client Sample ID: SS05

Lab Sample ID: 890-3106-5

Date Collected: 09/28/22 14:25

Matrix: Solid

Date Received: 09/29/22 08:35

Sample Depth: 0.5

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/08/22 13:26	10/11/22 16:34	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/08/22 13:26	10/11/22 16:34	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/08/22 13:26	10/11/22 16:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/08/22 13:26	10/11/22 16:34	1
o-Xylene	<0.00199	U *	0.00199	mg/Kg		10/08/22 13:26	10/11/22 16:34	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/08/22 13:26	10/11/22 16:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	66	S1-	70 - 130			10/08/22 13:26	10/11/22 16:34	1
1,4-Difluorobenzene (Surr)	103		70 - 130			10/08/22 13:26	10/11/22 16:34	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/11/22 15:00	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	14100		250	mg/Kg			10/03/22 11:45	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U *1	250	mg/Kg		09/30/22 14:01	10/01/22 04:07	5
Diesel Range Organics (Over C10-C28)	12200		250	mg/Kg		09/30/22 14:01	10/01/22 04:07	5
Oil Range Organics (Over C28-C36)	1860		250	mg/Kg		09/30/22 14:01	10/01/22 04:07	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			09/30/22 14:01	10/01/22 04:07	5
o-Terphenyl	239	S1+	70 - 130			09/30/22 14:01	10/01/22 04:07	5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	128		4.99	mg/Kg			10/06/22 13:00	1

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## Surrogate Summary

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

## 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)
890-3105-A-1-C MS	Matrix Spike	85	101
890-3105-A-1-D MSD	Matrix Spike Duplicate	82	100
890-3106-1	SS01	73	97
890-3106-2	SS02	76	85
890-3106-3	SS03	79	71
890-3106-4	SS04	83	72
890-3106-5	SS05	66 S1-	103
LCS 880-36450/1-A	Lab Control Sample	111	99
LCSD 880-36450/2-A	Lab Control Sample Dup	122	106
MB 880-36450/5-A	Method Blank	88	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)
890-3104-A-1-B MS	Matrix Spike	69 S1-	61 S1-
890-3104-A-1-C MSD	Matrix Spike Duplicate	71	61 S1-
890-3106-1	SS01	79	434 S1+
890-3106-2	SS02	109	292 S1+
890-3106-3	SS03	93	193 S1+
890-3106-4	SS04	93	94
890-3106-5	SS05	108	239 S1+
LCS 880-35819/2-A	Lab Control Sample	106	110
LCSD 880-35819/3-A	Lab Control Sample Dup	94	98
MB 880-35819/1-A	Method Blank	108	116

## Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

## QC Sample Results

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

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

Lab Sample ID: MB 880-36450/5-A

Matrix: Solid

Analysis Batch: 36624

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36450

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 13:26	10/11/22 10:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 13:26	10/11/22 10:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 13:26	10/11/22 10:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/22 13:26	10/11/22 10:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 13:26	10/11/22 10:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/08/22 13:26	10/11/22 10:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	10/08/22 13:26	10/11/22 10:43	1
1,4-Difluorobenzene (Surr)	91		70 - 130	10/08/22 13:26	10/11/22 10:43	1

Lab Sample ID: LCS 880-36450/1-A

Matrix: Solid

Analysis Batch: 36624

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36450

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08634		mg/Kg		86	70 - 130
Toluene	0.100	0.08646		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.08708		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1903		mg/Kg		95	70 - 130
o-Xylene	0.100	0.1090		mg/Kg		109	70 - 130

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

Lab Sample ID: LCSD 880-36450/2-A

Matrix: Solid

Analysis Batch: 36624

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36450

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09637		mg/Kg		96	70 - 130	11	35
Toluene	0.100	0.09772		mg/Kg		98	70 - 130	12	35
Ethylbenzene	0.100	0.1077		mg/Kg		108	70 - 130	21	35
m-Xylene & p-Xylene	0.200	0.2381		mg/Kg		119	70 - 130	22	35
o-Xylene	0.100	0.1334	*+	mg/Kg		133	70 - 130	20	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 890-3105-A-1-C MS

Matrix: Solid

Analysis Batch: 36624

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36450

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1 F2	0.0998	0.01209	F1	mg/Kg		12	70 - 130
Toluene	<0.00202	U F1 F2	0.0998	0.007769	F1	mg/Kg		8	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

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

Lab Sample ID: 890-3105-A-1-C MS

Matrix: Solid

Analysis Batch: 36624

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36450

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U F1 F2	0.0998	0.008280	F1	mg/Kg		8	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.200	0.01613	F1	mg/Kg		8	70 - 130
o-Xylene	<0.00202	U *+ F1 F2	0.0998	0.01470	F1	mg/Kg		15	70 - 130
Surrogate	%Recovery	MS Qualifier	MS Limits						
4-Bromofluorobenzene (Surr)	85		70 - 130						
1,4-Difluorobenzene (Surr)	101		70 - 130						

Lab Sample ID: 890-3105-A-1-D MSD

Matrix: Solid

Analysis Batch: 36624

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36450

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1 F2	0.0996	0.003787	F1 F2	mg/Kg		4	70 - 130	105	35
Toluene	<0.00202	U F1 F2	0.0996	0.002329	F1 F2	mg/Kg		2	70 - 130	108	35
Ethylbenzene	<0.00202	U F1 F2	0.0996	0.002969	F1 F2	mg/Kg		3	70 - 130	94	35
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.199	0.006455	F1 F2	mg/Kg		3	70 - 130	86	35
o-Xylene	<0.00202	U *+ F1 F2	0.0996	0.004802	F1 F2	mg/Kg		5	70 - 130	102	35
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	82		70 - 130								
1,4-Difluorobenzene (Surr)	100		70 - 130								

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

Lab Sample ID: MB 880-35819/1-A

Matrix: Solid

Analysis Batch: 35738

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35819

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/30/22 14:01	09/30/22 19:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/30/22 14:01	09/30/22 19:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/30/22 14:01	09/30/22 19:10	1
Surrogate	%Recovery	MB Qualifier	MB Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			09/30/22 14:01	09/30/22 19:10	1
o-Terphenyl	116		70 - 130			09/30/22 14:01	09/30/22 19:10	1

Lab Sample ID: LCS 880-35819/2-A

Matrix: Solid

Analysis Batch: 35738

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35819

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1130		mg/Kg		113	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

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

Lab Sample ID: LCS 880-35819/2-A

Matrix: Solid

Analysis Batch: 35738

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35819

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	983.8		mg/Kg		98	70 - 130		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	106		70 - 130								
o-Terphenyl	110		70 - 130								

Lab Sample ID: LCSD 880-35819/3-A

Matrix: Solid

Analysis Batch: 35738

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35819

			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	805.1	*1	mg/Kg		81	70 - 130	34	20
Diesel Range Organics (Over C10-C28)			1000	871.5		mg/Kg		87	70 - 130	12	20
			LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	94		70 - 130								
o-Terphenyl	98		70 - 130								

Lab Sample ID: 890-3104-A-1-B MS

Matrix: Solid

Analysis Batch: 35738

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35819

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	998	887.3		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	563	F1	998	954.4	F1	mg/Kg		39	70 - 130		

Lab Sample ID: 890-3104-A-1-C MSD

Matrix: Solid

Analysis Batch: 35738

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35819

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	999	976.8		mg/Kg		96	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	563	F1	999	983.3	F1	mg/Kg		42	70 - 130	3	20

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## QC Sample Results

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36006/1-A

Matrix: Solid

Analysis Batch: 36264

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/06/22 11:38	1

Lab Sample ID: LCS 880-36006/2-A

Matrix: Solid

Analysis Batch: 36264

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	241.3		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-36006/3-A

Matrix: Solid

Analysis Batch: 36264

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	258.0		mg/Kg		103	90 - 110	7	20

Lab Sample ID: 880-19869-A-1-B MS

Matrix: Solid

Analysis Batch: 36264

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	840	F1	250	1090		mg/Kg		100	90 - 110

Lab Sample ID: 880-19869-A-1-C MSD

Matrix: Solid

Analysis Batch: 36264

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	840	F1	250	1025	F1	mg/Kg		74	90 - 110	6	20

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## QC Association Summary

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

## GC VOA

## Prep Batch: 36450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3106-1	SS01	Total/NA	Solid	5035	
890-3106-2	SS02	Total/NA	Solid	5035	
890-3106-3	SS03	Total/NA	Solid	5035	
890-3106-4	SS04	Total/NA	Solid	5035	
890-3106-5	SS05	Total/NA	Solid	5035	
MB 880-36450/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36450/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36450/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3105-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3105-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 36624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3106-1	SS01	Total/NA	Solid	8021B	36450
890-3106-2	SS02	Total/NA	Solid	8021B	36450
890-3106-3	SS03	Total/NA	Solid	8021B	36450
890-3106-4	SS04	Total/NA	Solid	8021B	36450
890-3106-5	SS05	Total/NA	Solid	8021B	36450
MB 880-36450/5-A	Method Blank	Total/NA	Solid	8021B	36450
LCS 880-36450/1-A	Lab Control Sample	Total/NA	Solid	8021B	36450
LCSD 880-36450/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36450
890-3105-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	36450
890-3105-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36450

## Analysis Batch: 36692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3106-1	SS01	Total/NA	Solid	Total BTEX	
890-3106-2	SS02	Total/NA	Solid	Total BTEX	
890-3106-3	SS03	Total/NA	Solid	Total BTEX	
890-3106-4	SS04	Total/NA	Solid	Total BTEX	
890-3106-5	SS05	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 35738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3106-1	SS01	Total/NA	Solid	8015B NM	35819
890-3106-2	SS02	Total/NA	Solid	8015B NM	35819
890-3106-3	SS03	Total/NA	Solid	8015B NM	35819
890-3106-4	SS04	Total/NA	Solid	8015B NM	35819
890-3106-5	SS05	Total/NA	Solid	8015B NM	35819
MB 880-35819/1-A	Method Blank	Total/NA	Solid	8015B NM	35819
LCS 880-35819/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35819
LCSD 880-35819/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35819
890-3104-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	35819
890-3104-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35819

## Prep Batch: 35819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3106-1	SS01	Total/NA	Solid	8015NM Prep	
890-3106-2	SS02	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

## GC Semi VOA (Continued)

## Prep Batch: 35819 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3106-3	SS03	Total/NA	Solid	8015NM Prep	
890-3106-4	SS04	Total/NA	Solid	8015NM Prep	
890-3106-5	SS05	Total/NA	Solid	8015NM Prep	
MB 880-35819/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35819/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35819/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3104-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3104-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 35983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3106-1	SS01	Total/NA	Solid	8015 NM	
890-3106-2	SS02	Total/NA	Solid	8015 NM	
890-3106-3	SS03	Total/NA	Solid	8015 NM	
890-3106-4	SS04	Total/NA	Solid	8015 NM	
890-3106-5	SS05	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 36006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3106-1	SS01	Soluble	Solid	DI Leach	
890-3106-2	SS02	Soluble	Solid	DI Leach	
890-3106-3	SS03	Soluble	Solid	DI Leach	
890-3106-4	SS04	Soluble	Solid	DI Leach	
890-3106-5	SS05	Soluble	Solid	DI Leach	
MB 880-36006/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36006/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36006/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-19869-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-19869-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 36264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3106-1	SS01	Soluble	Solid	300.0	36006
890-3106-2	SS02	Soluble	Solid	300.0	36006
890-3106-3	SS03	Soluble	Solid	300.0	36006
890-3106-4	SS04	Soluble	Solid	300.0	36006
890-3106-5	SS05	Soluble	Solid	300.0	36006
MB 880-36006/1-A	Method Blank	Soluble	Solid	300.0	36006
LCS 880-36006/2-A	Lab Control Sample	Soluble	Solid	300.0	36006
LCSD 880-36006/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36006
880-19869-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	36006
880-19869-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36006

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Lab Chronicle

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

Client Sample ID: SS01  
Date Collected: 09/28/22 14:00  
Date Received: 09/29/22 08:35

Lab Sample ID: 890-3106-1  
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			4.97 g	5 mL	36450	10/08/22 13:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36624	10/11/22 14:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36692	10/11/22 15:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			35983	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35819	09/30/22 14:01	DM	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	35738	10/01/22 03:02	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36006	10/03/22 14:32	KS	EET MID
Soluble	Analysis	300.0		1			36264	10/06/22 12:25	CH	EET MID

Client Sample ID: SS02  
Date Collected: 09/28/22 14:05  
Date Received: 09/29/22 08:35

Lab Sample ID: 890-3106-2  
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			5.05 g	5 mL	36450	10/08/22 13:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36624	10/11/22 15:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36692	10/11/22 15:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			35983	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35819	09/30/22 14:01	DM	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	35738	10/01/22 03:24	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	36006	10/03/22 14:32	KS	EET MID
Soluble	Analysis	300.0		1			36264	10/06/22 12:31	CH	EET MID

Client Sample ID: SS03  
Date Collected: 09/28/22 14:15  
Date Received: 09/29/22 08:35

Lab Sample ID: 890-3106-3  
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			5.03 g	5 mL	36450	10/08/22 13:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36624	10/11/22 15:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36692	10/11/22 15:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			35983	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35819	09/30/22 14:01	DM	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	35738	10/01/22 03:45	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	36006	10/03/22 14:32	KS	EET MID
Soluble	Analysis	300.0		1			36264	10/06/22 12:48	CH	EET MID

Client Sample ID: SS04  
Date Collected: 09/28/22 14:20  
Date Received: 09/29/22 08:35

Lab Sample ID: 890-3106-4  
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			5.01 g	5 mL	36450	10/08/22 13:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36624	10/11/22 16:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36692	10/11/22 15:00	SM	EET MID

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Lab Chronicle

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

Client Sample ID: SS04  
Date Collected: 09/28/22 14:20  
Date Received: 09/29/22 08:35

Lab Sample ID: 890-3106-4  
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			35983	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35819	09/30/22 14:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35738	10/01/22 02:41	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36006	10/03/22 14:32	KS	EET MID
Soluble	Analysis	300.0		1			36264	10/06/22 12:54	CH	EET MID

Client Sample ID: SS05  
Date Collected: 09/28/22 14:25  
Date Received: 09/29/22 08:35

Lab Sample ID: 890-3106-5  
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			5.02 g	5 mL	36450	10/08/22 13:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36624	10/11/22 16:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36692	10/11/22 15:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			35983	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35819	09/30/22 14:01	DM	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	35738	10/01/22 04:07	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	36006	10/03/22 14:32	KS	EET MID
Soluble	Analysis	300.0		1			36264	10/06/22 13:00	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

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	T104704400-22-24	06-30-23

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: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

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

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Ensolum  
Project/Site: NASH UNIT 36

Job ID: 890-3106-1  
SDG: 03E1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3106-1	SS01	Solid	09/28/22 14:00	09/29/22 08:35	0.5
890-3106-2	SS02	Solid	09/28/22 14:05	09/29/22 08:35	0.5
890-3106-3	SS03	Solid	09/28/22 14:15	09/29/22 08:35	0.5
890-3106-4	SS04	Solid	09/28/22 14:20	09/29/22 08:35	0.5
890-3106-5	SS05	Solid	09/28/22 14:25	09/29/22 08:35	0.5

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



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

Chain of Custody

Work Order No: \_\_\_\_\_

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Page \_\_\_\_\_ of \_\_\_\_\_

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolium	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.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:	Nash Unit 36	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03E1558117	Due Date:			
Project Location:	Connor Whitman	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:					
PO #:		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
SAMPLE RECEIPT		Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	72W007
Cooler Custody Seals:	Yes No	Correction Factor:			
Sample Custody Seals:	Yes No	Temperature Reading:			
Total Containers:		Corrected Temperature:			
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp
SS01	S	9/28/2022	14:00	5'	grab/1
SS02	S	9/28/2022	14:05	5'	grab/1
SS03	S	9/28/2022	14:15	5'	grab/1
SS04	S	9/28/2022	14:20	5'	grab/1
SS05	S	9/28/2022	14:25	5'	grab/1

ANALYSIS REQUEST

890-3106 Chain of Custody

Preservative Codes

None: NO DI Water: H<sub>2</sub>O

Cool: Cool MeOH: Me

HCL: HC HNO<sub>3</sub>: HN

H<sub>2</sub>SO<sub>4</sub>: H<sub>2</sub> NaOH: Na

H<sub>3</sub>PO<sub>4</sub>: HP

NaHSO<sub>4</sub>: NABIS

Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>: NaSO<sub>3</sub>

Zn Acetate+NaOH: Zn

NaOH+Ascorbic Acid: SAPC

Sample Comments

Incident ID:

nAPP224236187

Cost Center:

1137151001

AEE:

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 <sub>2</sub>	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																																		

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
		9.28.22 8:35			

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3106-1

SDG Number: 03E1558117

Login Number: 3106

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: 890-3106-1

SDG Number: 03E1558117

Login Number: 3106

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 09/30/22 10:28 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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
705 W. Wadley  
Suite 210  
Midland Texas 79701

Generated 11/21/2022 5:28:44 PM

## JOB DESCRIPTION

Nash 36  
SDG NUMBER 03E1558117

## JOB NUMBER

890-3426-1

Client: Ensolum  
Project/Site: Nash 36

Laboratory Job ID: 890-3426-1  
SDG: 03E1558117

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
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.
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.

## HPLC/IC

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

## Glossary

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

Eurofins Carlsbad

Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

- 1
- 2
- 3
- 4
- 5
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- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

## Case Narrative

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Job ID: 890-3426-1

## Laboratory: Eurofins Carlsbad

## Narrative

Job Narrative  
890-3426-1

## Receipt

The samples were received on 11/10/2022 1:33 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 4.0°C

## Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-3426-1), FS02 (890-3426-2), FS03 (890-3426-3), FS04 (890-3426-4), FS05 (890-3426-5), FS06 (890-3426-6), FS07 (890-3426-7), FS08 (890-3426-8), FS09 (890-3426-9), FS10 (890-3426-10), FS11 (890-3426-11), FS12 (890-3426-12), FS13 (890-3426-13), FS14 (890-3426-14), FS15 (890-3426-15), FS16 (890-3426-16), FS17 (890-3426-17), FS18 (890-3426-18), FS19 (890-3426-19), FS20 (890-3426-20), FS21 (890-3426-21), FS22 (890-3426-22), FS23 (890-3426-23), FS24 (890-3426-24), FS25 (890-3426-25), FS26 (890-3426-26), FS27 (890-3426-27), FS28 (890-3426-28), FS29 (890-3426-29), FS30 (890-3426-30), FS31 (890-3426-31), FS32 (890-3426-32), FS33 (890-3426-33), FS34 (890-3426-34), FS35 (890-3426-35), FS36 (890-3426-36), FS37 (890-3426-37), FS38 (890-3426-38), FS39 (890-3426-39), FS40 (890-3426-40), FS41 (890-3426-41), FS42 (890-3426-42), FS43 (890-3426-43), FS44 (890-3426-44), FS45 (890-3426-45), FS46 (890-3426-46), FS47 (890-3426-47) and FS48 (890-3426-48).

## GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-39650 and analytical batch 880-39617 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: The surrogate recovery for the blank associated with preparation batch 880-39649 and analytical batch 880-39665 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-3426-A-21-G MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS15 (890-3426-15), FS16 (890-3426-16) and FS17 (890-3426-17). 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: FS20 (890-3426-20). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-39922 and analytical batch 880-39930 was outside the upper control limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-39696 and analytical batch 880-39930 was outside the upper control limits.

Method 8021B: The method blank for preparation batch 880-39922 and analytical batch 880-39930 contained m-Xylene & p-Xylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-39696 and analytical batch 880-39930 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: LCS biased low. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-39696/1-A)

Method 8021B: The method blank for preparation batch 880-39696 and analytical batch 880-39930 contained m-Xylene & p-Xylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or

## Case Narrative

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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**Job ID: 890-3426-1 (Continued)**

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**Laboratory: Eurofins Carlsbad (Continued)**

re-analysis of samples was not performed.

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

**GC Semi VOA**

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-39418/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: FS45 (890-3426-45). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: FS48 (890-3426-48). 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 880-39418 and analytical batch 880-39385 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-39456 and analytical batch 880-39571 was outside control limits. Sample non-homogeneity is suspected.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-39457/3-A). Evidence of matrix interferences is not obvious.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-39446 and analytical batch 880-39633 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: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS01

Lab Sample ID: 890-3426-1

Date Collected: 11/07/22 09:00

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 12:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 12:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 12:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/15/22 16:34	11/16/22 12:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 12:34	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/15/22 16:34	11/16/22 12:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	11/15/22 16:34	11/16/22 12:34	1
1,4-Difluorobenzene (Surr)	92		70 - 130	11/15/22 16:34	11/16/22 12:34	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/16/22 15:31	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	50.0	mg/Kg		11/14/22 12:06	11/15/22 11:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 11:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 11:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	11/14/22 12:06	11/15/22 11:17	1
o-Terphenyl	108		70 - 130	11/14/22 12:06	11/15/22 11:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1840		50.5	mg/Kg			11/15/22 15:35	10

Client Sample ID: FS02

Lab Sample ID: 890-3426-2

Date Collected: 11/07/22 09:45

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 13:00	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 13:00	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 13:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 13:00	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 13:00	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 13:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	11/15/22 16:34	11/16/22 13:00	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS02

Lab Sample ID: 890-3426-2

Date Collected: 11/07/22 09:45

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	85		70 - 130	11/15/22 16:34	11/16/22 13:00	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/16/22 15:31	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		11/14/22 12:06	11/15/22 12:22	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/14/22 12:06	11/15/22 12:22	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/14/22 12:06	11/15/22 12:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			11/14/22 12:06	11/15/22 12:22	1
o-Terphenyl	107		70 - 130			11/14/22 12:06	11/15/22 12:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2160		49.6	mg/Kg			11/15/22 15:52	10

Client Sample ID: FS03

Lab Sample ID: 890-3426-3

Date Collected: 11/07/22 10:45

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 13:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 13:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 13:27	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/15/22 16:34	11/16/22 13:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 13:27	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/15/22 16:34	11/16/22 13:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	11/15/22 16:34	11/16/22 13:27	1
1,4-Difluorobenzene (Surr)	92		70 - 130	11/15/22 16:34	11/16/22 13:27	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/16/22 15:31	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 09:54	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS03

Lab Sample ID: 890-3426-3

Date Collected: 11/07/22 10:45

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 12:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 12:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 12:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			11/14/22 12:06	11/15/22 12:44	1
o-Terphenyl	100		70 - 130			11/14/22 12:06	11/15/22 12:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	304		4.99	mg/Kg			11/15/22 15:57	1

## Client Sample ID: FS04

Lab Sample ID: 890-3426-4

Date Collected: 11/07/22 10:50

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 13:53	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 13:53	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 13:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 13:53	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 13:53	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 13:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			11/15/22 16:34	11/16/22 13:53	1
1,4-Difluorobenzene (Surr)	89		70 - 130			11/15/22 16:34	11/16/22 13:53	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/16/22 15:31	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 13:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 13:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 13:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			11/14/22 12:06	11/15/22 13:05	1
o-Terphenyl	96		70 - 130			11/14/22 12:06	11/15/22 13:05	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS04

Lab Sample ID: 890-3426-4

Date Collected: 11/07/22 10:50

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	337		5.01	mg/Kg			11/16/22 13:44	1

## Client Sample ID: FS05

Lab Sample ID: 890-3426-5

Date Collected: 11/07/22 11:55

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 14:19	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 14:19	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 14:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 14:19	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 14:19	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 14:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130			11/15/22 16:34	11/16/22 14:19	1
1,4-Difluorobenzene (Surr)	84		70 - 130			11/15/22 16:34	11/16/22 14:19	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/16/22 15:31	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 13:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 13:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 13:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130			11/14/22 12:06	11/15/22 13:26	1
o-Terphenyl	110		70 - 130			11/14/22 12:06	11/15/22 13:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	535		5.04	mg/Kg			11/15/22 16:08	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS06

Lab Sample ID: 890-3426-6

Date Collected: 11/07/22 12:00

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 14:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 14:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 14:45	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/15/22 16:34	11/16/22 14:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 14:45	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/15/22 16:34	11/16/22 14:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	11/15/22 16:34	11/16/22 14:45	1
1,4-Difluorobenzene (Surr)	91		70 - 130	11/15/22 16:34	11/16/22 14:45	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/16/22 15:31	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 13:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 13:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 13:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	11/14/22 12:06	11/15/22 13:48	1
o-Terphenyl	108		70 - 130	11/14/22 12:06	11/15/22 13:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1940		24.8	mg/Kg			11/15/22 16:25	5

Client Sample ID: FS07

Lab Sample ID: 890-3426-7

Date Collected: 11/07/22 12:05

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:34	11/16/22 15:11	1
Toluene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:34	11/16/22 15:11	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:34	11/16/22 15:11	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		11/15/22 16:34	11/16/22 15:11	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:34	11/16/22 15:11	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		11/15/22 16:34	11/16/22 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	11/15/22 16:34	11/16/22 15:11	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS07

Lab Sample ID: 890-3426-7

Date Collected: 11/07/22 12:05

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	11/15/22 16:34	11/16/22 15:11	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			11/16/22 15:31	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 14:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 14:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 14:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130			11/14/22 12:06	11/15/22 14:09	1
o-Terphenyl	110		70 - 130			11/14/22 12:06	11/15/22 14:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1840		24.8	mg/Kg			11/15/22 16:31	5

Client Sample ID: FS08

Lab Sample ID: 890-3426-8

Date Collected: 11/07/22 12:10

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 15:38	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 15:38	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 15:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 15:38	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 15:38	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 15:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	11/15/22 16:34	11/16/22 15:38	1
1,4-Difluorobenzene (Surr)	88		70 - 130	11/15/22 16:34	11/16/22 15:38	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/16/22 16:41	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 09:54	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS08

Lab Sample ID: 890-3426-8

Date Collected: 11/07/22 12:10

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 14:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 14:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 14:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			11/14/22 12:06	11/15/22 14:31	1
o-Terphenyl	97		70 - 130			11/14/22 12:06	11/15/22 14:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1480		50.0	mg/Kg			11/15/22 16:37	10

## Client Sample ID: FS09

Lab Sample ID: 890-3426-9

Date Collected: 11/07/22 12:40

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 16:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 16:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 16:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/15/22 16:34	11/16/22 16:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 16:04	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/15/22 16:34	11/16/22 16:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130			11/15/22 16:34	11/16/22 16:04	1
1,4-Difluorobenzene (Surr)	100		70 - 130			11/15/22 16:34	11/16/22 16:04	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/16/22 16:41	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 14:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 14:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 14:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130			11/14/22 12:06	11/15/22 14:52	1
o-Terphenyl	110		70 - 130			11/14/22 12:06	11/15/22 14:52	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS09

Lab Sample ID: 890-3426-9

Date Collected: 11/07/22 12:40

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	569		24.9	mg/Kg			11/15/22 16:42	5

## Client Sample ID: FS10

Lab Sample ID: 890-3426-10

Date Collected: 11/07/22 12:15

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 16:29	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 16:29	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 16:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 16:29	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 16:29	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 16:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130			11/15/22 16:34	11/16/22 16:29	1
1,4-Difluorobenzene (Surr)	97		70 - 130			11/15/22 16:34	11/16/22 16:29	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 15:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 15:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 15:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			11/14/22 12:06	11/15/22 15:13	1
o-Terphenyl	107		70 - 130			11/14/22 12:06	11/15/22 15:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	382		25.2	mg/Kg			11/15/22 16:48	5

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS11

Lab Sample ID: 890-3426-11

Date Collected: 11/07/22 12:20

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 18:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 18:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 18:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 18:13	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 18:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	11/15/22 16:34	11/16/22 18:13	1
1,4-Difluorobenzene (Surr)	82		70 - 130	11/15/22 16:34	11/16/22 18:13	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 16:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 16:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 16:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	11/14/22 12:06	11/15/22 16:07	1
o-Terphenyl	93		70 - 130	11/14/22 12:06	11/15/22 16:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	428		25.1	mg/Kg			11/15/22 16:54	5

Client Sample ID: FS12

Lab Sample ID: 890-3426-12

Date Collected: 11/07/22 12:25

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 18:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 18:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 18:39	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/15/22 16:34	11/16/22 18:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 18:39	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/15/22 16:34	11/16/22 18:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	11/15/22 16:34	11/16/22 18:39	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS12

Lab Sample ID: 890-3426-12

Date Collected: 11/07/22 12:25

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	107		70 - 130	11/15/22 16:34	11/16/22 18:39	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 16:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 16:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 16:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			11/14/22 12:06	11/15/22 16:28	1
o-Terphenyl	108		70 - 130			11/14/22 12:06	11/15/22 16:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	481		25.0	mg/Kg			11/15/22 17:11	5

Client Sample ID: FS13

Lab Sample ID: 890-3426-13

Date Collected: 11/07/22 12:30

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:34	11/16/22 19:05	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:34	11/16/22 19:05	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:34	11/16/22 19:05	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/15/22 16:34	11/16/22 19:05	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:34	11/16/22 19:05	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/15/22 16:34	11/16/22 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	11/15/22 16:34	11/16/22 19:05	1
1,4-Difluorobenzene (Surr)	95		70 - 130	11/15/22 16:34	11/16/22 19:05	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 09:54	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS13

Lab Sample ID: 890-3426-13

Date Collected: 11/07/22 12:30

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 16:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 16:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 16:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			11/14/22 12:06	11/15/22 16:50	1
o-Terphenyl	107		70 - 130			11/14/22 12:06	11/15/22 16:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1670		49.5	mg/Kg			11/15/22 17:16	10

Client Sample ID: FS14

Lab Sample ID: 890-3426-14

Date Collected: 11/07/22 14:30

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 19:30	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 19:30	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 19:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 19:30	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 19:30	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 19:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			11/15/22 16:34	11/16/22 19:30	1
1,4-Difluorobenzene (Surr)	90		70 - 130			11/15/22 16:34	11/16/22 19:30	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 17:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 17:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 17:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			11/14/22 12:06	11/15/22 17:11	1
o-Terphenyl	115		70 - 130			11/14/22 12:06	11/15/22 17:11	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS14

Lab Sample ID: 890-3426-14

Date Collected: 11/07/22 14:30

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3380		101	mg/Kg			11/15/22 17:33	20

## Client Sample ID: FS15

Lab Sample ID: 890-3426-15

Date Collected: 11/07/22 14:35

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 19:56	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 19:56	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 19:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 19:56	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 19:56	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 19:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130			11/15/22 16:34	11/16/22 19:56	1
1,4-Difluorobenzene (Surr)	99		70 - 130			11/15/22 16:34	11/16/22 19:56	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 17:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 17:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 17:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			11/14/22 12:06	11/15/22 17:32	1
o-Terphenyl	94		70 - 130			11/14/22 12:06	11/15/22 17:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4860		100	mg/Kg			11/15/22 17:39	20

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS16

Lab Sample ID: 890-3426-16

Date Collected: 11/07/22 14:40

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 20:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 20:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 20:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/15/22 16:34	11/16/22 20:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 20:21	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/15/22 16:34	11/16/22 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130	11/15/22 16:34	11/16/22 20:21	1
1,4-Difluorobenzene (Surr)	97		70 - 130	11/15/22 16:34	11/16/22 20:21	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 17:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 17:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	11/14/22 12:06	11/15/22 17:54	1
o-Terphenyl	105		70 - 130	11/14/22 12:06	11/15/22 17:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4110		99.4	mg/Kg			11/15/22 17:45	20

Client Sample ID: FS17

Lab Sample ID: 890-3426-17

Date Collected: 11/07/22 14:45

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 20:47	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 20:47	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 20:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 20:47	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 20:47	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	139	S1+	70 - 130	11/15/22 16:34	11/16/22 20:47	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS17

Lab Sample ID: 890-3426-17

Date Collected: 11/07/22 14:45

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	101		70 - 130	11/15/22 16:34	11/16/22 20:47	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 18:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 18:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 18:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			11/14/22 12:06	11/15/22 18:15	1
o-Terphenyl	98		70 - 130			11/14/22 12:06	11/15/22 18:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5110		99.2	mg/Kg			11/15/22 17:50	20

Client Sample ID: FS18

Lab Sample ID: 890-3426-18

Date Collected: 11/07/22 14:50

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 21:12	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 21:12	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 21:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 21:12	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:34	11/16/22 21:12	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:34	11/16/22 21:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130			11/15/22 16:34	11/16/22 21:12	1
1,4-Difluorobenzene (Surr)	100		70 - 130			11/15/22 16:34	11/16/22 21:12	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/16/22 09:54	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS18

Lab Sample ID: 890-3426-18

Date Collected: 11/07/22 14:50

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		11/14/22 12:06	11/15/22 18:36	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/14/22 12:06	11/15/22 18:36	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/14/22 12:06	11/15/22 18:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			11/14/22 12:06	11/15/22 18:36	1
o-Terphenyl	101		70 - 130			11/14/22 12:06	11/15/22 18:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5450		100	mg/Kg			11/15/22 17:56	20

Client Sample ID: FS19

Lab Sample ID: 890-3426-19

Date Collected: 11/07/22 14:55

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 21:38	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 21:38	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 21:38	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/15/22 16:34	11/16/22 21:38	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 21:38	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/15/22 16:34	11/16/22 21:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			11/15/22 16:34	11/16/22 21:38	1
1,4-Difluorobenzene (Surr)	96		70 - 130			11/15/22 16:34	11/16/22 21:38	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 18:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 18:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:06	11/15/22 18:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			11/14/22 12:06	11/15/22 18:58	1
o-Terphenyl	98		70 - 130			11/14/22 12:06	11/15/22 18:58	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS19

Lab Sample ID: 890-3426-19

Date Collected: 11/07/22 14:55

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4120		99.2	mg/Kg			11/15/22 18:02	20

## Client Sample ID: FS20

Lab Sample ID: 890-3426-20

Date Collected: 11/07/22 15:00

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 22:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 22:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 22:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/15/22 16:34	11/16/22 22:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 22:04	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/15/22 16:34	11/16/22 22:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130			11/15/22 16:34	11/16/22 22:04	1
1,4-Difluorobenzene (Surr)	98		70 - 130			11/15/22 16:34	11/16/22 22:04	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/17/22 15:03	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/16/22 09:54	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		11/14/22 12:06	11/15/22 19:19	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/14/22 12:06	11/15/22 19:19	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/14/22 12:06	11/15/22 19:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			11/14/22 12:06	11/15/22 19:19	1
o-Terphenyl	102		70 - 130			11/14/22 12:06	11/15/22 19:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7510		99.6	mg/Kg			11/15/22 18:07	20

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS21

Lab Sample ID: 890-3426-21

Date Collected: 11/07/22 15:05

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 11:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 11:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 11:45	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/15/22 16:36	11/16/22 11:45	1
o-Xylene	<0.00200	U F2 F1	0.00200	mg/Kg		11/15/22 16:36	11/16/22 11:45	1
Xylenes, Total	<0.00401	U F1	0.00401	mg/Kg		11/15/22 16:36	11/16/22 11:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	11/15/22 16:36	11/16/22 11:45	1
1,4-Difluorobenzene (Surr)	100		70 - 130	11/15/22 16:36	11/16/22 11:45	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/16/22 15:33	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 11:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 11:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 11:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	11/14/22 12:10	11/15/22 11:17	1
o-Terphenyl	106		70 - 130	11/14/22 12:10	11/15/22 11:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5820		100	mg/Kg			11/15/22 19:07	20

Client Sample ID: FS22

Lab Sample ID: 890-3426-22

Date Collected: 11/07/22 15:10

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 12:05	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 12:05	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 12:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 12:05	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 12:05	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 12:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	11/15/22 16:36	11/16/22 12:05	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS22

Lab Sample ID: 890-3426-22

Date Collected: 11/07/22 15:10

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	11/15/22 16:36	11/16/22 12:05	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/16/22 15:33	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 12:22	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 12:22	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 12:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			11/14/22 12:10	11/15/22 12:22	1
o-Terphenyl	97		70 - 130			11/14/22 12:10	11/15/22 12:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5110		99.8	mg/Kg			11/15/22 19:24	20

Client Sample ID: FS23

Lab Sample ID: 890-3426-23

Date Collected: 11/07/22 15:15

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 12:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 12:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 12:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/15/22 16:36	11/16/22 12:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 12:26	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/15/22 16:36	11/16/22 12:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	11/15/22 16:36	11/16/22 12:26	1
1,4-Difluorobenzene (Surr)	108		70 - 130	11/15/22 16:36	11/16/22 12:26	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/16/22 15:33	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	59.4		49.9	mg/Kg			11/16/22 10:16	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS23

Lab Sample ID: 890-3426-23

Date Collected: 11/07/22 15:15

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 12:44	1
Diesel Range Organics (Over C10-C28)	59.4		49.9	mg/Kg		11/14/22 12:10	11/15/22 12:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 12:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			11/14/22 12:10	11/15/22 12:44	1
o-Terphenyl	97		70 - 130			11/14/22 12:10	11/15/22 12:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5970		99.0	mg/Kg			11/15/22 19:30	20

## Client Sample ID: FS24

Lab Sample ID: 890-3426-24

Date Collected: 11/08/22 11:30

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 12:47	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 12:47	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 12:47	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		11/15/22 16:36	11/16/22 12:47	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 12:47	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/15/22 16:36	11/16/22 12:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130			11/15/22 16:36	11/16/22 12:47	1
1,4-Difluorobenzene (Surr)	112		70 - 130			11/15/22 16:36	11/16/22 12:47	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/16/22 15:33	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 13:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 13:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 13:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			11/14/22 12:10	11/15/22 13:05	1
o-Terphenyl	101		70 - 130			11/14/22 12:10	11/15/22 13:05	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS24

Lab Sample ID: 890-3426-24

Date Collected: 11/08/22 11:30

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.7		1.00	mg/Kg			11/15/22 19:35	20

## Client Sample ID: FS25

Lab Sample ID: 890-3426-25

Date Collected: 11/08/22 11:35

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 13:07	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 13:07	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 13:07	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/15/22 16:36	11/16/22 13:07	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 13:07	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/15/22 16:36	11/16/22 13:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			11/15/22 16:36	11/16/22 13:07	1
1,4-Difluorobenzene (Surr)	110		70 - 130			11/15/22 16:36	11/16/22 13:07	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/16/22 15:33	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 13:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 13:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 13:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			11/14/22 12:10	11/15/22 13:26	1
o-Terphenyl	95		70 - 130			11/14/22 12:10	11/15/22 13:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7350		99.6	mg/Kg			11/15/22 19:41	20

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS26

Lab Sample ID: 890-3426-26

Date Collected: 11/08/22 11:40

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:36	11/16/22 13:28	1
Toluene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:36	11/16/22 13:28	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:36	11/16/22 13:28	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		11/15/22 16:36	11/16/22 13:28	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:36	11/16/22 13:28	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		11/15/22 16:36	11/16/22 13:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	11/15/22 16:36	11/16/22 13:28	1
1,4-Difluorobenzene (Surr)	110		70 - 130	11/15/22 16:36	11/16/22 13:28	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			11/16/22 15:33	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 13:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 13:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 13:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	11/14/22 12:10	11/15/22 13:48	1
o-Terphenyl	95		70 - 130	11/14/22 12:10	11/15/22 13:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5330		49.7	mg/Kg			11/15/22 19:58	10

Client Sample ID: FS27

Lab Sample ID: 890-3426-27

Date Collected: 11/08/22 11:45

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 13:49	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 13:49	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 13:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 13:49	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 13:49	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 13:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	11/15/22 16:36	11/16/22 13:49	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS27

Lab Sample ID: 890-3426-27

Date Collected: 11/08/22 11:45

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	11/15/22 16:36	11/16/22 13:49	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/16/22 15:33	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 14:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 14:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 14:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			11/14/22 12:10	11/15/22 14:09	1
o-Terphenyl	102		70 - 130			11/14/22 12:10	11/15/22 14:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2590		24.8	mg/Kg			11/15/22 20:04	5

Client Sample ID: FS28

Lab Sample ID: 890-3426-28

Date Collected: 11/08/22 11:50

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 14:09	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 14:09	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 14:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 14:09	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 14:09	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 14:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	11/15/22 16:36	11/16/22 14:09	1
1,4-Difluorobenzene (Surr)	106		70 - 130	11/15/22 16:36	11/16/22 14:09	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/16/22 15:33	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 10:16	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS28

Lab Sample ID: 890-3426-28

Date Collected: 11/08/22 11:50

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 14:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 14:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 14:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			11/14/22 12:10	11/15/22 14:31	1
o-Terphenyl	115		70 - 130			11/14/22 12:10	11/15/22 14:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8040		100	mg/Kg			11/15/22 20:09	20

## Client Sample ID: FS29

Lab Sample ID: 890-3426-29

Date Collected: 11/08/22 12:30

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 14:30	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 14:30	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 14:30	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		11/15/22 16:36	11/16/22 14:30	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 14:30	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/15/22 16:36	11/16/22 14:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130			11/15/22 16:36	11/16/22 14:30	1
1,4-Difluorobenzene (Surr)	105		70 - 130			11/15/22 16:36	11/16/22 14:30	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/16/22 15:33	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	126		49.9	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 14:52	1
Diesel Range Organics (Over C10-C28)	126		49.9	mg/Kg		11/14/22 12:10	11/15/22 14:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 14:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			11/14/22 12:10	11/15/22 14:52	1
o-Terphenyl	99		70 - 130			11/14/22 12:10	11/15/22 14:52	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS29

Lab Sample ID: 890-3426-29

Date Collected: 11/08/22 12:30

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9550		99.8	mg/Kg			11/15/22 20:15	20

## Client Sample ID: FS30

Lab Sample ID: 890-3426-30

Date Collected: 11/08/22 12:00

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 14:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 14:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 14:51	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/15/22 16:36	11/16/22 14:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 14:51	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/15/22 16:36	11/16/22 14:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			11/15/22 16:36	11/16/22 14:51	1
1,4-Difluorobenzene (Surr)	117		70 - 130			11/15/22 16:36	11/16/22 14:51	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/16/22 15:33	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	60.6		50.0	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 15:13	1
Diesel Range Organics (Over C10-C28)	60.6		50.0	mg/Kg		11/14/22 12:10	11/15/22 15:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 15:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			11/14/22 12:10	11/15/22 15:13	1
o-Terphenyl	96		70 - 130			11/14/22 12:10	11/15/22 15:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3950		49.5	mg/Kg			11/15/22 20:21	10

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS31

Lab Sample ID: 890-3426-31

Date Collected: 11/08/22 12:05

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 16:28	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 16:28	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 16:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/15/22 16:36	11/16/22 16:28	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 16:28	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/15/22 16:36	11/16/22 16:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	11/15/22 16:36	11/16/22 16:28	1
1,4-Difluorobenzene (Surr)	96		70 - 130	11/15/22 16:36	11/16/22 16:28	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/17/22 09:42	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	93.7		50.0	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 16:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 16:07	1
Oil Range Organics (Over C28-C36)	93.7		50.0	mg/Kg		11/14/22 12:10	11/15/22 16:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	11/14/22 12:10	11/15/22 16:07	1
o-Terphenyl	95		70 - 130	11/14/22 12:10	11/15/22 16:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5430	F1	49.7	mg/Kg			11/15/22 20:26	10

Client Sample ID: FS32

Lab Sample ID: 890-3426-32

Date Collected: 11/08/22 12:10

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 16:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 16:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 16:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/15/22 16:36	11/16/22 16:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 16:49	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/15/22 16:36	11/16/22 16:49	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS32

Lab Sample ID: 890-3426-32

Date Collected: 11/08/22 12:10

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	11/15/22 16:36	11/16/22 16:49	1
1,4-Difluorobenzene (Surr)	109		70 - 130	11/15/22 16:36	11/16/22 16:49	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/17/22 09:42	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	71.7		49.9	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 16:28	1
Diesel Range Organics (Over C10-C28)	71.7		49.9	mg/Kg		11/14/22 12:10	11/15/22 16:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 16:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	11/14/22 12:10	11/15/22 16:28	1
o-Terphenyl	96		70 - 130	11/14/22 12:10	11/15/22 16:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10300		100	mg/Kg			11/15/22 20:43	20

Client Sample ID: FS33

Lab Sample ID: 890-3426-33

Date Collected: 11/08/22 10:10

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 17:10	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 17:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 17:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 17:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 17:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 17:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	11/15/22 16:36	11/16/22 17:10	1
1,4-Difluorobenzene (Surr)	107		70 - 130	11/15/22 16:36	11/16/22 17:10	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/17/22 09:42	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 10:16	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS33

Lab Sample ID: 890-3426-33

Date Collected: 11/08/22 10:10

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 16:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 16:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 16:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			11/14/22 12:10	11/15/22 16:50	1
o-Terphenyl	100		70 - 130			11/14/22 12:10	11/15/22 16:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7130		99.8	mg/Kg			11/15/22 20:49	20

## Client Sample ID: FS34

Lab Sample ID: 890-3426-34

Date Collected: 11/08/22 10:15

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 17:30	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 17:30	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 17:30	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		11/15/22 16:36	11/16/22 17:30	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/15/22 16:36	11/16/22 17:30	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/15/22 16:36	11/16/22 17:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130			11/15/22 16:36	11/16/22 17:30	1
1,4-Difluorobenzene (Surr)	82		70 - 130			11/15/22 16:36	11/16/22 17:30	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/17/22 09:42	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 17:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 17:11	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 17:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			11/14/22 12:10	11/15/22 17:11	1
o-Terphenyl	95		70 - 130			11/14/22 12:10	11/15/22 17:11	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS34

Lab Sample ID: 890-3426-34

Date Collected: 11/08/22 10:15

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6680		100	mg/Kg			11/15/22 21:06	20

## Client Sample ID: FS35

Lab Sample ID: 890-3426-35

Date Collected: 11/08/22 10:20

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 17:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 17:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 17:51	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/15/22 16:36	11/16/22 17:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 17:51	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/15/22 16:36	11/16/22 17:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130			11/15/22 16:36	11/16/22 17:51	1
1,4-Difluorobenzene (Surr)	103		70 - 130			11/15/22 16:36	11/16/22 17:51	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/17/22 09:42	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 17:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 17:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 17:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			11/14/22 12:10	11/15/22 17:32	1
o-Terphenyl	110		70 - 130			11/14/22 12:10	11/15/22 17:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2930		49.8	mg/Kg			11/15/22 21:12	10

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS36

Lab Sample ID: 890-3426-36

Date Collected: 11/08/22 10:25

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 18:11	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 18:11	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 18:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/15/22 16:36	11/16/22 18:11	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/15/22 16:36	11/16/22 18:11	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/15/22 16:36	11/16/22 18:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	11/15/22 16:36	11/16/22 18:11	1
1,4-Difluorobenzene (Surr)	104		70 - 130	11/15/22 16:36	11/16/22 18:11	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/17/22 09:42	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 17:54	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 17:54	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	11/14/22 12:10	11/15/22 17:54	1
o-Terphenyl	111		70 - 130	11/14/22 12:10	11/15/22 17:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7950		99.8	mg/Kg			11/15/22 21:17	20

Client Sample ID: FS37

Lab Sample ID: 890-3426-37

Date Collected: 11/08/22 10:30

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:36	11/16/22 18:32	1
Toluene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:36	11/16/22 18:32	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:36	11/16/22 18:32	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		11/15/22 16:36	11/16/22 18:32	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		11/15/22 16:36	11/16/22 18:32	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		11/15/22 16:36	11/16/22 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	11/15/22 16:36	11/16/22 18:32	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS37

Lab Sample ID: 890-3426-37

Date Collected: 11/08/22 10:30

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	107		70 - 130	11/15/22 16:36	11/16/22 18:32	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			11/17/22 09:42	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 18:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 18:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 18:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			11/14/22 12:10	11/15/22 18:15	1
o-Terphenyl	94		70 - 130			11/14/22 12:10	11/15/22 18:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6790		99.2	mg/Kg			11/15/22 21:23	20

Client Sample ID: FS38

Lab Sample ID: 890-3426-38

Date Collected: 11/08/22 10:35

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 18:53	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 18:53	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 18:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 18:53	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 18:53	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 18:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	11/15/22 16:36	11/16/22 18:53	1
1,4-Difluorobenzene (Surr)	97		70 - 130	11/15/22 16:36	11/16/22 18:53	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/17/22 09:42	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/16/22 10:16	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS38

Lab Sample ID: 890-3426-38

Date Collected: 11/08/22 10:35

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 18:36	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 18:36	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 18:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			11/14/22 12:10	11/15/22 18:36	1
o-Terphenyl	111		70 - 130			11/14/22 12:10	11/15/22 18:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2560		50.5	mg/Kg			11/15/22 21:29	10

Client Sample ID: FS39

Lab Sample ID: 890-3426-39

Date Collected: 11/08/22 10:40

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 19:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 19:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 19:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 19:13	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/15/22 16:36	11/16/22 19:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/15/22 16:36	11/16/22 19:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			11/15/22 16:36	11/16/22 19:13	1
1,4-Difluorobenzene (Surr)	105		70 - 130			11/15/22 16:36	11/16/22 19:13	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/17/22 09:42	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 18:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 18:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 12:10	11/15/22 18:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			11/14/22 12:10	11/15/22 18:58	1
o-Terphenyl	91		70 - 130			11/14/22 12:10	11/15/22 18:58	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS39

Lab Sample ID: 890-3426-39

Date Collected: 11/08/22 10:40

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4000		49.8	mg/Kg			11/15/22 21:34	10

## Client Sample ID: FS40

Lab Sample ID: 890-3426-40

Date Collected: 11/08/22 10:45

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 19:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 19:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 19:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/15/22 16:36	11/16/22 19:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 19:34	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/15/22 16:36	11/16/22 19:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130			11/15/22 16:36	11/16/22 19:34	1
1,4-Difluorobenzene (Surr)	109		70 - 130			11/15/22 16:36	11/16/22 19:34	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/17/22 09:42	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	62.1		49.8	mg/Kg			11/16/22 10:16	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 19:19	1
Diesel Range Organics (Over C10-C28)	62.1		49.8	mg/Kg		11/14/22 12:10	11/15/22 19:19	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/14/22 12:10	11/15/22 19:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			11/14/22 12:10	11/15/22 19:19	1
o-Terphenyl	93		70 - 130			11/14/22 12:10	11/15/22 19:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6460		100	mg/Kg			11/15/22 21:40	20

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS41

Lab Sample ID: 890-3426-41

Date Collected: 11/08/22 10:50

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *- *1	0.00201	mg/Kg		11/16/22 10:35	11/19/22 06:59	1
Toluene	<0.00201	U *- *1	0.00201	mg/Kg		11/16/22 10:35	11/19/22 06:59	1
Ethylbenzene	<0.00201	U *- *1 F1	0.00201	mg/Kg		11/16/22 10:35	11/19/22 06:59	1
m-Xylene & p-Xylene	<0.00402	U *- *1	0.00402	mg/Kg		11/16/22 10:35	11/19/22 06:59	1
o-Xylene	<0.00201	U *- *1 F1	0.00201	mg/Kg		11/16/22 10:35	11/19/22 06:59	1
Xylenes, Total	<0.00402	U *- *1	0.00402	mg/Kg		11/16/22 10:35	11/19/22 06:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	11/16/22 10:35	11/19/22 06:59	1
1,4-Difluorobenzene (Surr)	93		70 - 130	11/16/22 10:35	11/19/22 06:59	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/21/22 18:12	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/15/22 13:49	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/14/22 21:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		11/14/22 10:22	11/14/22 21:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/14/22 21:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	11/14/22 10:22	11/14/22 21:39	1
o-Terphenyl	100		70 - 130	11/14/22 10:22	11/14/22 21:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4650		49.9	mg/Kg			11/15/22 22:48	10

Client Sample ID: FS42

Lab Sample ID: 890-3426-42

Date Collected: 11/08/22 10:55

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 07:26	1
Toluene	<0.00199	U *- *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 07:26	1
Ethylbenzene	<0.00199	U *- *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 07:26	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398	mg/Kg		11/16/22 10:35	11/19/22 07:26	1
o-Xylene	<0.00199	U *- *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 07:26	1
Xylenes, Total	<0.00398	U *- *1	0.00398	mg/Kg		11/16/22 10:35	11/19/22 07:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	11/16/22 10:35	11/19/22 07:26	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS42

Lab Sample ID: 890-3426-42

Date Collected: 11/08/22 10:55

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	97		70 - 130	11/16/22 10:35	11/19/22 07:26	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/21/22 18:12	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	59.2		49.8	mg/Kg			11/15/22 13:49	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		11/14/22 10:22	11/14/22 22:44	1
Diesel Range Organics (Over C10-C28)	59.2	*1	49.8	mg/Kg		11/14/22 10:22	11/14/22 22:44	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/14/22 10:22	11/14/22 22:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			11/14/22 10:22	11/14/22 22:44	1
o-Terphenyl	92		70 - 130			11/14/22 10:22	11/14/22 22:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6810		100	mg/Kg			11/15/22 22:54	20

Client Sample ID: FS43

Lab Sample ID: 890-3426-43

Date Collected: 11/08/22 11:00

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U * *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 07:52	1
Toluene	<0.00200	U * *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 07:52	1
Ethylbenzene	<0.00200	U * *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 07:52	1
m-Xylene & p-Xylene	<0.00399	U * *1	0.00399	mg/Kg		11/16/22 10:35	11/19/22 07:52	1
o-Xylene	<0.00200	U * *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 07:52	1
Xylenes, Total	<0.00399	U * *1	0.00399	mg/Kg		11/16/22 10:35	11/19/22 07:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	11/16/22 10:35	11/19/22 07:52	1
1,4-Difluorobenzene (Surr)	97		70 - 130	11/16/22 10:35	11/19/22 07:52	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/21/22 18:12	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/15/22 13:49	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS43

Lab Sample ID: 890-3426-43

Date Collected: 11/08/22 11:00

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 10:22	11/14/22 23:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		11/14/22 10:22	11/14/22 23:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 10:22	11/14/22 23:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			11/14/22 10:22	11/14/22 23:06	1
o-Terphenyl	99		70 - 130			11/14/22 10:22	11/14/22 23:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4990		101	mg/Kg			11/15/22 22:59	20

## Client Sample ID: FS44

Lab Sample ID: 890-3426-44

Date Collected: 11/08/22 11:05

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 08:20	1
Toluene	<0.00199	U *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 08:20	1
Ethylbenzene	<0.00199	U *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 08:20	1
m-Xylene & p-Xylene	<0.00398	U *1	0.00398	mg/Kg		11/16/22 10:35	11/19/22 08:20	1
o-Xylene	<0.00199	U *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 08:20	1
Xylenes, Total	<0.00398	U *1	0.00398	mg/Kg		11/16/22 10:35	11/19/22 08:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			11/16/22 10:35	11/19/22 08:20	1
1,4-Difluorobenzene (Surr)	94		70 - 130			11/16/22 10:35	11/19/22 08:20	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/21/22 18:12	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/15/22 13:49	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/14/22 23:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		11/14/22 10:22	11/14/22 23:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/14/22 23:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			11/14/22 10:22	11/14/22 23:27	1
o-Terphenyl	103		70 - 130			11/14/22 10:22	11/14/22 23:27	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS44

Lab Sample ID: 890-3426-44

Date Collected: 11/08/22 11:05

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3730		49.6	mg/Kg			11/15/22 23:16	10

## Client Sample ID: FS45

Lab Sample ID: 890-3426-45

Date Collected: 11/08/22 11:10

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 08:47	1
Toluene	<0.00199	U *- *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 08:47	1
Ethylbenzene	<0.00199	U *- *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 08:47	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398	mg/Kg		11/16/22 10:35	11/19/22 08:47	1
o-Xylene	<0.00199	U *- *1	0.00199	mg/Kg		11/16/22 10:35	11/19/22 08:47	1
Xylenes, Total	<0.00398	U *- *1	0.00398	mg/Kg		11/16/22 10:35	11/19/22 08:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			11/16/22 10:35	11/19/22 08:47	1
1,4-Difluorobenzene (Surr)	103		70 - 130			11/16/22 10:35	11/19/22 08:47	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/21/22 18:12	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	160		50.0	mg/Kg			11/15/22 13:49	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/14/22 23:49	1
Diesel Range Organics (Over C10-C28)	160	*1	50.0	mg/Kg		11/14/22 10:22	11/14/22 23:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/14/22 23:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130			11/14/22 10:22	11/14/22 23:49	1
o-Terphenyl	137	S1+	70 - 130			11/14/22 10:22	11/14/22 23:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5830		99.2	mg/Kg			11/15/22 23:22	20

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS46

Lab Sample ID: 890-3426-46

Date Collected: 11/08/22 11:15

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 09:14	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 09:14	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 09:14	1
m-Xylene & p-Xylene	<0.00399	U *- *1	0.00399	mg/Kg		11/16/22 10:35	11/19/22 09:14	1
o-Xylene	<0.00200	U *- *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 09:14	1
Xylenes, Total	<0.00399	U *- *1	0.00399	mg/Kg		11/16/22 10:35	11/19/22 09:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	11/16/22 10:35	11/19/22 09:14	1
1,4-Difluorobenzene (Surr)	95		70 - 130	11/16/22 10:35	11/19/22 09:14	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/21/22 18:12	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/15/22 13:49	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/14/22 10:22	11/15/22 00:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		11/14/22 10:22	11/15/22 00:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/14/22 10:22	11/15/22 00:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	11/14/22 10:22	11/15/22 00:10	1
o-Terphenyl	128		70 - 130	11/14/22 10:22	11/15/22 00:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5170		50.0	mg/Kg			11/15/22 23:27	10

Client Sample ID: FS47

Lab Sample ID: 890-3426-47

Date Collected: 11/08/22 12:20

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *- *1	0.00201	mg/Kg		11/16/22 10:35	11/19/22 09:41	1
Toluene	<0.00201	U *- *1	0.00201	mg/Kg		11/16/22 10:35	11/19/22 09:41	1
Ethylbenzene	<0.00201	U *- *1	0.00201	mg/Kg		11/16/22 10:35	11/19/22 09:41	1
m-Xylene & p-Xylene	<0.00402	U *- *1	0.00402	mg/Kg		11/16/22 10:35	11/19/22 09:41	1
o-Xylene	<0.00201	U *- *1	0.00201	mg/Kg		11/16/22 10:35	11/19/22 09:41	1
Xylenes, Total	<0.00402	U *- *1	0.00402	mg/Kg		11/16/22 10:35	11/19/22 09:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	11/16/22 10:35	11/19/22 09:41	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS47

Lab Sample ID: 890-3426-47

Date Collected: 11/08/22 12:20

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	101		70 - 130	11/16/22 10:35	11/19/22 09:41	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/21/22 18:12	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	62.6		50.0	mg/Kg			11/15/22 13:49	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/15/22 00:31	1
Diesel Range Organics (Over C10-C28)	62.6	*1	50.0	mg/Kg		11/14/22 10:22	11/15/22 00:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/15/22 00:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			11/14/22 10:22	11/15/22 00:31	1
o-Terphenyl	102		70 - 130			11/14/22 10:22	11/15/22 00:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5990		99.4	mg/Kg			11/15/22 23:33	20

Client Sample ID: FS48

Lab Sample ID: 890-3426-48

Date Collected: 11/08/22 12:15

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U * *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 10:08	1
Toluene	<0.00200	U * *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 10:08	1
Ethylbenzene	<0.00200	U * *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 10:08	1
m-Xylene & p-Xylene	<0.00401	U * *1	0.00401	mg/Kg		11/16/22 10:35	11/19/22 10:08	1
o-Xylene	<0.00200	U * *1	0.00200	mg/Kg		11/16/22 10:35	11/19/22 10:08	1
Xylenes, Total	<0.00401	U * *1	0.00401	mg/Kg		11/16/22 10:35	11/19/22 10:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	11/16/22 10:35	11/19/22 10:08	1
1,4-Difluorobenzene (Surr)	93		70 - 130	11/16/22 10:35	11/19/22 10:08	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/21/22 18:12	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/15/22 13:49	1

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Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS48

Lab Sample ID: 890-3426-48

Date Collected: 11/08/22 12:15

Matrix: Solid

Date Received: 11/10/22 13:33

Sample Depth: 1'

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/15/22 00:52	1	
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		11/14/22 10:22	11/15/22 00:52	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/15/22 00:52	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	120		70 - 130			11/14/22 10:22	11/15/22 00:52	1	
o-Terphenyl	133	S1+	70 - 130			11/14/22 10:22	11/15/22 00:52	1	

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	6190		101	mg/Kg			11/15/22 23:39	20	



## Surrogate Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

**Method: 8021B - Volatile Organic Compounds (GC)****Matrix: Solid****Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
890-3426-1	FS01	101	92
890-3426-1 MS	FS01	109	96
890-3426-1 MSD	FS01	101	98
890-3426-2	FS02	107	85
890-3426-3	FS03	115	92
890-3426-4	FS04	99	89
890-3426-5	FS05	118	84
890-3426-6	FS06	112	91
890-3426-7	FS07	126	106
890-3426-8	FS08	119	88
890-3426-9	FS09	117	100
890-3426-10	FS10	119	97
890-3426-11	FS11	97	82
890-3426-12	FS12	109	107
890-3426-13	FS13	112	95
890-3426-14	FS14	110	90
890-3426-15	FS15	135 S1+	99
890-3426-16	FS16	140 S1+	97
890-3426-17	FS17	139 S1+	101
890-3426-18	FS18	124	100
890-3426-19	FS19	110	96
890-3426-20	FS20	134 S1+	98
890-3426-21	FS21	107	100
890-3426-21 MS	FS21	144 S1+	112
890-3426-21 MSD	FS21	92	95
890-3426-22	FS22	118	106
890-3426-23	FS23	113	108
890-3426-24	FS24	125	112
890-3426-25	FS25	112	110
890-3426-26	FS26	112	110
890-3426-27	FS27	121	106
890-3426-28	FS28	112	106
890-3426-29	FS29	122	105
890-3426-30	FS30	114	117
890-3426-31	FS31	110	96
890-3426-32	FS32	122	109
890-3426-33	FS33	115	107
890-3426-34	FS34	119	82
890-3426-35	FS35	125	103
890-3426-36	FS36	119	104
890-3426-37	FS37	127	107
890-3426-38	FS38	127	97
890-3426-39	FS39	114	105
890-3426-40	FS40	119	109
890-3426-41	FS41	97	93
890-3426-41 MS	FS41	97	103
890-3426-41 MSD	FS41	116	103
890-3426-42	FS42	108	97
890-3426-43	FS43	109	97

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## Surrogate Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3426-44	FS44	114	94
890-3426-45	FS45	112	103
890-3426-46	FS46	97	95
890-3426-47	FS47	109	101
890-3426-48	FS48	87	93
LCS 880-39649/1-A	Lab Control Sample	122	109
LCS 880-39650/1-A	Lab Control Sample	88	98
LCS 880-39696/1-A	Lab Control Sample	92	88
LCSD 880-39649/2-A	Lab Control Sample Dup	121	105
LCSD 880-39650/2-A	Lab Control Sample Dup	93	100
LCSD 880-39696/2-A	Lab Control Sample Dup	121	101
MB 880-39649/5-A	Method Blank	69 S1-	94
MB 880-39650/5-A	Method Blank	107	94
MB 880-39696/5-A	Method Blank	66 S1-	89
MB 880-39922/5-A	Method Blank	63 S1-	94
<b>Surrogate Legend</b>			
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)
890-3426-1	FS01	114	108
890-3426-1 MS	FS01	86	77
890-3426-1 MSD	FS01	100	87
890-3426-2	FS02	112	107
890-3426-3	FS03	104	100
890-3426-4	FS04	105	96
890-3426-5	FS05	118	110
890-3426-6	FS06	116	108
890-3426-7	FS07	117	110
890-3426-8	FS08	104	97
890-3426-9	FS09	117	110
890-3426-10	FS10	115	107
890-3426-11	FS11	99	93
890-3426-12	FS12	115	108
890-3426-13	FS13	113	107
890-3426-14	FS14	119	115
890-3426-15	FS15	101	94
890-3426-16	FS16	111	105
890-3426-17	FS17	102	98
890-3426-18	FS18	103	101
890-3426-19	FS19	102	98
890-3426-20	FS20	111	102
890-3426-21	FS21	103	106
890-3426-21 MS	FS21	96	88
890-3426-21 MSD	FS21	101	91

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## Surrogate Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## 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)
890-3426-22	FS22	97	97
890-3426-23	FS23	98	97
890-3426-24	FS24	102	101
890-3426-25	FS25	95	95
890-3426-26	FS26	96	95
890-3426-27	FS27	103	102
890-3426-28	FS28	113	115
890-3426-29	FS29	101	99
890-3426-30	FS30	98	96
890-3426-31	FS31	95	95
890-3426-32	FS32	98	96
890-3426-33	FS33	99	100
890-3426-34	FS34	97	95
890-3426-35	FS35	108	110
890-3426-36	FS36	109	111
890-3426-37	FS37	94	94
890-3426-38	FS38	107	111
890-3426-39	FS39	92	91
890-3426-40	FS40	94	93
890-3426-41	FS41	93	100
890-3426-41 MS	FS41	86	83
890-3426-41 MSD	FS41	85	81
890-3426-42	FS42	87	92
890-3426-43	FS43	92	99
890-3426-44	FS44	97	103
890-3426-45	FS45	126	137 S1+
890-3426-46	FS46	117	128
890-3426-47	FS47	95	102
890-3426-48	FS48	120	133 S1+
LCS 880-39418/2-A	Lab Control Sample	97	110
LCS 880-39456/2-A	Lab Control Sample	103	101
LCS 880-39457/2-A	Lab Control Sample	121	128
LCSD 880-39418/3-A	Lab Control Sample Dup	115	135 S1+
LCSD 880-39456/3-A	Lab Control Sample Dup	114	110
LCSD 880-39457/3-A	Lab Control Sample Dup	133 S1+	144 S1+
MB 880-39418/1-A	Method Blank	89	97
MB 880-39456/1-A	Method Blank	98	94
MB 880-39457/1-A	Method Blank	96	97

## Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Lab Sample ID: MB 880-39649/5-A

Matrix: Solid

Analysis Batch: 39665

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39649

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 12:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 12:08	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 12:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/15/22 16:34	11/16/22 12:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:34	11/16/22 12:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/15/22 16:34	11/16/22 12:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	69	S1-	70 - 130	11/15/22 16:34	11/16/22 12:08	1
1,4-Difluorobenzene (Surr)	94		70 - 130	11/15/22 16:34	11/16/22 12:08	1

Lab Sample ID: LCS 880-39649/1-A

Matrix: Solid

Analysis Batch: 39665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39649

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1099		mg/Kg		110	70 - 130
Toluene	0.100	0.1132		mg/Kg		113	70 - 130
Ethylbenzene	0.100	0.1116		mg/Kg		112	70 - 130
m-Xylene & p-Xylene	0.200	0.2484		mg/Kg		124	70 - 130
o-Xylene	0.100	0.1233		mg/Kg		123	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-39649/2-A

Matrix: Solid

Analysis Batch: 39665

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39649

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1111		mg/Kg		111	70 - 130	1	35
Toluene	0.100	0.1121		mg/Kg		112	70 - 130	1	35
Ethylbenzene	0.100	0.1127		mg/Kg		113	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2569		mg/Kg		128	70 - 130	3	35
o-Xylene	0.100	0.1280		mg/Kg		128	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-3426-1 MS

Matrix: Solid

Analysis Batch: 39665

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 39649

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0998	0.08276		mg/Kg		83	70 - 130
Toluene	<0.00200	U	0.0998	0.09215		mg/Kg		92	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Lab Sample ID: 890-3426-1 MS

Matrix: Solid

Analysis Batch: 39665

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 39649

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0998	0.08843		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1959		mg/Kg		98	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09451		mg/Kg		95	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-3426-1 MSD

Matrix: Solid

Analysis Batch: 39665

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 39649

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	0.08858		mg/Kg		89	70 - 130	7	35
Toluene	<0.00200	U	0.0996	0.09828		mg/Kg		99	70 - 130	6	35
Ethylbenzene	<0.00200	U	0.0996	0.09239		mg/Kg		93	70 - 130	4	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.2034		mg/Kg		102	70 - 130	4	35
o-Xylene	<0.00200	U	0.0996	0.09872		mg/Kg		99	70 - 130	4	35

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

Lab Sample ID: MB 880-39650/5-A

Matrix: Solid

Analysis Batch: 39617

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39650

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 11:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 11:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 11:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/15/22 16:36	11/16/22 11:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/15/22 16:36	11/16/22 11:23	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/15/22 16:36	11/16/22 11:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	11/15/22 16:36	11/16/22 11:23	1
1,4-Difluorobenzene (Surr)	94		70 - 130	11/15/22 16:36	11/16/22 11:23	1

Lab Sample ID: LCS 880-39650/1-A

Matrix: Solid

Analysis Batch: 39617

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09014		mg/Kg		90	70 - 130
Toluene	0.100	0.09341		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09040		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	0.200	0.1785		mg/Kg		89	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Lab Sample ID: LCS 880-39650/1-A

Matrix: Solid

Analysis Batch: 39617

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.09978		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-39650/2-A

Matrix: Solid

Analysis Batch: 39617

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39650

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08820		mg/Kg		88	70 - 130	2	35
Toluene	0.100	0.09091		mg/Kg		91	70 - 130	3	35
Ethylbenzene	0.100	0.09480		mg/Kg		95	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1845		mg/Kg		92	70 - 130	3	35
o-Xylene	0.100	0.1046		mg/Kg		105	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-3426-21 MS

Matrix: Solid

Analysis Batch: 39617

Client Sample ID: FS21

Prep Type: Total/NA

Prep Batch: 39650

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0996	0.07875		mg/Kg		79	70 - 130
Toluene	<0.00200	U	0.0996	0.09716		mg/Kg		98	70 - 130
Ethylbenzene	<0.00200	U	0.0996	0.1192		mg/Kg		120	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.2496		mg/Kg		125	70 - 130
o-Xylene	<0.00200	U F2 F1	0.0996	0.1465	F1	mg/Kg		147	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	144	S1+	70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 890-3426-21 MSD

Matrix: Solid

Analysis Batch: 39617

Client Sample ID: FS21

Prep Type: Total/NA

Prep Batch: 39650

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0998	0.09091		mg/Kg		91	70 - 130	14	35
Toluene	<0.00200	U	0.0998	0.09202		mg/Kg		92	70 - 130	5	35
Ethylbenzene	<0.00200	U	0.0998	0.09025		mg/Kg		90	70 - 130	28	35
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1770		mg/Kg		89	70 - 130	34	35
o-Xylene	<0.00200	U F2 F1	0.0998	0.1002	F2	mg/Kg		100	70 - 130	38	35

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Lab Sample ID: 890-3426-21 MSD

Matrix: Solid

Analysis Batch: 39617

Client Sample ID: FS21

Prep Type: Total/NA

Prep Batch: 39650

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

Lab Sample ID: MB 880-39696/5-A

Matrix: Solid

Analysis Batch: 39930

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39696

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/16/22 10:35	11/19/22 06:32	1	
Toluene	<0.00200	U	0.00200	mg/Kg		11/16/22 10:35	11/19/22 06:32	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/16/22 10:35	11/19/22 06:32	1	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/16/22 10:35	11/19/22 06:32	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/16/22 10:35	11/19/22 06:32	1	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/16/22 10:35	11/19/22 06:32	1	

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac		
4-Bromofluorobenzene (Surr)	66	S1-	70 - 130	11/16/22 10:35	11/19/22 06:32	1			
1,4-Difluorobenzene (Surr)	89		70 - 130	11/16/22 10:35	11/19/22 06:32	1			

Lab Sample ID: LCS 880-39696/1-A

Matrix: Solid

Analysis Batch: 39930

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39696

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	0.100	0.02233	*-	mg/Kg		22	70 - 130		
Toluene	0.100	0.02593	*-	mg/Kg		26	70 - 130		
Ethylbenzene	0.100	0.02451	*-	mg/Kg		25	70 - 130		
m-Xylene & p-Xylene	0.200	0.05600	*-	mg/Kg		28	70 - 130		
o-Xylene	0.100	0.03046	*-	mg/Kg		30	70 - 130		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: LCSD 880-39696/2-A

Matrix: Solid

Analysis Batch: 39930

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39696

	Spike	LCSD	LCSD					%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1046	*1	mg/Kg		105	70 - 130	130	35	
Toluene	0.100	0.09291	*1	mg/Kg		93	70 - 130	113	35	
Ethylbenzene	0.100	0.09366	*1	mg/Kg		94	70 - 130	117	35	
m-Xylene & p-Xylene	0.200	0.2040	*1	mg/Kg		102	70 - 130	114	35	
o-Xylene	0.100	0.09928	*1	mg/Kg		99	70 - 130	106	35	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Lab Sample ID: LCSD 880-39696/2-A  
Matrix: Solid  
Analysis Batch: 39930

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 39696

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

Lab Sample ID: 890-3426-41 MS  
Matrix: Solid  
Analysis Batch: 39930

Client Sample ID: FS41  
Prep Type: Total/NA  
Prep Batch: 39696

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U *- *1	0.0996	0.07063		mg/Kg		71	70 - 130
Toluene	<0.00201	U *- *1	0.0996	0.07216		mg/Kg		72	70 - 130
Ethylbenzene	<0.00201	U *- *1 F1	0.0996	0.06604	F1	mg/Kg		66	70 - 130
m-Xylene & p-Xylene	<0.00402	U *- *1	0.199	0.1432		mg/Kg		71	70 - 130
o-Xylene	<0.00201	U *- *1 F1	0.0996	0.06777	F1	mg/Kg		68	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-3426-41 MSD  
Matrix: Solid  
Analysis Batch: 39930

Client Sample ID: FS41  
Prep Type: Total/NA  
Prep Batch: 39696

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00201	U *- *1	0.0990	0.08846		mg/Kg		89	70 - 130	22	35
Toluene	<0.00201	U *- *1	0.0990	0.08772		mg/Kg		89	70 - 130	19	35
Ethylbenzene	<0.00201	U *- *1 F1	0.0990	0.08185		mg/Kg		83	70 - 130	21	35
m-Xylene & p-Xylene	<0.00402	U *- *1	0.198	0.1804		mg/Kg		90	70 - 130	23	35
o-Xylene	<0.00201	U *- *1 F1	0.0990	0.08452		mg/Kg		85	70 - 130	22	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: MB 880-39922/5-A  
Matrix: Solid  
Analysis Batch: 39930

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 39922

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/18/22 12:17	11/18/22 17:10	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/18/22 12:17	11/18/22 17:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/18/22 12:17	11/18/22 17:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/18/22 12:17	11/18/22 17:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/18/22 12:17	11/18/22 17:10	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/18/22 12:17	11/18/22 17:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	63	S1-	70 - 130	11/18/22 12:17	11/18/22 17:10	1
1,4-Difluorobenzene (Surr)	94		70 - 130	11/18/22 12:17	11/18/22 17:10	1

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Lab Sample ID: MB 880-39418/1-A

Matrix: Solid

Analysis Batch: 39385

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39418

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/14/22 20:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/14/22 20:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 10:22	11/14/22 20:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			11/14/22 10:22	11/14/22 20:35	1
o-Terphenyl	97		70 - 130			11/14/22 10:22	11/14/22 20:35	1

Lab Sample ID: LCS 880-39418/2-A

Matrix: Solid

Analysis Batch: 39385

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	860.5		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	1000	886.1		mg/Kg		89	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	97		70 - 130				
o-Terphenyl	110		70 - 130				

Lab Sample ID: LCSD 880-39418/3-A

Matrix: Solid

Analysis Batch: 39385

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39418

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	889.3		mg/Kg		89	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1112	*1	mg/Kg		111	70 - 130	23	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	115		70 - 130						
o-Terphenyl	135	S1+	70 - 130						

Lab Sample ID: 890-3426-41 MS

Matrix: Solid

Analysis Batch: 39385

Client Sample ID: FS41

Prep Type: Total/NA

Prep Batch: 39418

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	997	858.3		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *1	997	950.3		mg/Kg		94	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Lab Sample ID: 890-3426-41 MS

Matrix: Solid

Analysis Batch: 39385

Client Sample ID: FS41

Prep Type: Total/NA

Prep Batch: 39418

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: 890-3426-41 MSD

Matrix: Solid

Analysis Batch: 39385

Client Sample ID: FS41

Prep Type: Total/NA

Prep Batch: 39418

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	999	853.4		mg/Kg		85	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U *1	999	939.7		mg/Kg		93	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: MB 880-39456/1-A

Matrix: Solid

Analysis Batch: 39571

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39456

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 08:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 08:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:06	11/15/22 08:22	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	98		70 - 130	11/14/22 12:06	11/15/22 08:22	1
o-Terphenyl	94		70 - 130	11/14/22 12:06	11/15/22 08:22	1

Lab Sample ID: LCS 880-39456/2-A

Matrix: Solid

Analysis Batch: 39571

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	849.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	966.8		mg/Kg		97	70 - 130

	LCS	LCS	
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: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Lab Sample ID: LCSD 880-39456/3-A

Matrix: Solid

Analysis Batch: 39571

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39456

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	909.1		mg/Kg		91	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	1059		mg/Kg		106	70 - 130	9	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	114		70 - 130						
o-Terphenyl	110		70 - 130						

Lab Sample ID: 890-3426-1 MS

Matrix: Solid

Analysis Batch: 39571

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 39456

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 F2	997	813.7		mg/Kg		79	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	997	907.3		mg/Kg		91	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	86		70 - 130								
o-Terphenyl	77		70 - 130								

Lab Sample ID: 890-3426-1 MSD

Matrix: Solid

Analysis Batch: 39571

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 39456

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 F2	999	1039	F2	mg/Kg		102	70 - 130	24	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1039		mg/Kg		104	70 - 130	14	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	100		70 - 130								
o-Terphenyl	87		70 - 130								

Lab Sample ID: MB 880-39457/1-A

Matrix: Solid

Analysis Batch: 39573

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39457

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 08:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 08:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/14/22 12:10	11/15/22 08:22	1

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Lab Sample ID: MB 880-39457/1-A

Matrix: Solid

Analysis Batch: 39573

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39457

	MB	MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac			
1-Chlorooctane	96		70 - 130	11/14/22 12:10	11/15/22 08:22	1				
o-Terphenyl	97		70 - 130	11/14/22 12:10	11/15/22 08:22	1				

Lab Sample ID: LCS 880-39457/2-A

Matrix: Solid

Analysis Batch: 39573

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39457

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1082		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1131		mg/Kg		113	70 - 130		

	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	121		70 - 130								
o-Terphenyl	128		70 - 130								

Lab Sample ID: LCSD 880-39457/3-A

Matrix: Solid

Analysis Batch: 39573

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39457

			Spike	LCSD	LCSD				%Rec		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	978.3		mg/Kg		98	70 - 130	10	20	
Diesel Range Organics (Over C10-C28)			1000	1270		mg/Kg		127	70 - 130	12	20	

	LCSD	LCSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	133	S1+	70 - 130									
o-Terphenyl	144	S1+	70 - 130									

Lab Sample ID: 890-3426-21 MS

Matrix: Solid

Analysis Batch: 39573

Client Sample ID: FS21

Prep Type: Total/NA

Prep Batch: 39457

	Sample	Sample	Spike	MS	MS				%Rec			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1105		mg/Kg		109	70 - 130			
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1049		mg/Kg		101	70 - 130			

	MS	MS										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	96		70 - 130									
o-Terphenyl	88		70 - 130									

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

Lab Sample ID: 890-3426-21 MSD

Matrix: Solid

Analysis Batch: 39573

Client Sample ID: FS21

Prep Type: Total/NA

Prep Batch: 39457

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	999	1065		mg/Kg		105	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1124		mg/Kg		108	70 - 130	7	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	101		70 - 130								
o-Terphenyl	91		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39445/1-A

Matrix: Solid

Analysis Batch: 39628

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/15/22 15:19	1

Lab Sample ID: LCS 880-39445/2-A

Matrix: Solid

Analysis Batch: 39628

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	261.6		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-39445/3-A

Matrix: Solid

Analysis Batch: 39628

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	265.7		mg/Kg		106	90 - 110	2	20

Lab Sample ID: 890-3426-1 MS

Matrix: Solid

Analysis Batch: 39628

Client Sample ID: FS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1840		2530	4416		mg/Kg		102	90 - 110

Lab Sample ID: 890-3426-1 MSD

Matrix: Solid

Analysis Batch: 39628

Client Sample ID: FS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1840		2530	4470		mg/Kg		104	90 - 110	1	20

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3426-11 MS

Matrix: Solid

Analysis Batch: 39628

Client Sample ID: FS11

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	428		1250	1686		mg/Kg		100	90 - 110

Lab Sample ID: 890-3426-11 MSD

Matrix: Solid

Analysis Batch: 39628

Client Sample ID: FS11

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	428		1250	1714		mg/Kg		103	90 - 110	2	20

Lab Sample ID: MB 880-39446/1-A

Matrix: Solid

Analysis Batch: 39633

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/15/22 18:50	1

Lab Sample ID: LCS 880-39446/2-A

Matrix: Solid

Analysis Batch: 39633

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	261.0		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-39446/3-A

Matrix: Solid

Analysis Batch: 39633

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	271.6		mg/Kg		109	90 - 110	4	20

Lab Sample ID: 890-3426-21 MS

Matrix: Solid

Analysis Batch: 39633

Client Sample ID: FS21

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	5820		5000	10760		mg/Kg		99	90 - 110

Lab Sample ID: 890-3426-21 MSD

Matrix: Solid

Analysis Batch: 39633

Client Sample ID: FS21

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5820		5000	10700		mg/Kg		98	90 - 110	1	20

Lab Sample ID: 890-3426-31 MS

Matrix: Solid

Analysis Batch: 39633

Client Sample ID: FS31

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	5430	F1	2490	9268	F1	mg/Kg		154	90 - 110

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-3426-31 MSD

Matrix: Solid

Analysis Batch: 39633

Client Sample ID: FS31

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5430	F1	2490	9329	F1	mg/Kg		157	90 - 110	1	20

Lab Sample ID: MB 880-39447/1-A

Matrix: Solid

Analysis Batch: 39640

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/15/22 22:08	1

Lab Sample ID: LCS 880-39447/2-A

Matrix: Solid

Analysis Batch: 39640

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	263.6		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-39447/3-A

Matrix: Solid

Analysis Batch: 39640

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	262.6		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 880-21469-A-1-C MS

Matrix: Solid

Analysis Batch: 39640

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	2030		1260	3313		mg/Kg		102	90 - 110

Lab Sample ID: 880-21469-A-1-D MSD

Matrix: Solid

Analysis Batch: 39640

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	2030		1260	3383		mg/Kg		107	90 - 110	2	20

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## GC VOA

## Analysis Batch: 39617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-21	FS21	Total/NA	Solid	8021B	39650
890-3426-22	FS22	Total/NA	Solid	8021B	39650
890-3426-23	FS23	Total/NA	Solid	8021B	39650
890-3426-24	FS24	Total/NA	Solid	8021B	39650
890-3426-25	FS25	Total/NA	Solid	8021B	39650
890-3426-26	FS26	Total/NA	Solid	8021B	39650
890-3426-27	FS27	Total/NA	Solid	8021B	39650
890-3426-28	FS28	Total/NA	Solid	8021B	39650
890-3426-29	FS29	Total/NA	Solid	8021B	39650
890-3426-30	FS30	Total/NA	Solid	8021B	39650
890-3426-31	FS31	Total/NA	Solid	8021B	39650
890-3426-32	FS32	Total/NA	Solid	8021B	39650
890-3426-33	FS33	Total/NA	Solid	8021B	39650
890-3426-34	FS34	Total/NA	Solid	8021B	39650
890-3426-35	FS35	Total/NA	Solid	8021B	39650
890-3426-36	FS36	Total/NA	Solid	8021B	39650
890-3426-37	FS37	Total/NA	Solid	8021B	39650
890-3426-38	FS38	Total/NA	Solid	8021B	39650
890-3426-39	FS39	Total/NA	Solid	8021B	39650
890-3426-40	FS40	Total/NA	Solid	8021B	39650
MB 880-39650/5-A	Method Blank	Total/NA	Solid	8021B	39650
LCS 880-39650/1-A	Lab Control Sample	Total/NA	Solid	8021B	39650
LCSD 880-39650/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39650
890-3426-21 MS	FS21	Total/NA	Solid	8021B	39650
890-3426-21 MSD	FS21	Total/NA	Solid	8021B	39650

## Prep Batch: 39649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-1	FS01	Total/NA	Solid	5035	
890-3426-2	FS02	Total/NA	Solid	5035	
890-3426-3	FS03	Total/NA	Solid	5035	
890-3426-4	FS04	Total/NA	Solid	5035	
890-3426-5	FS05	Total/NA	Solid	5035	
890-3426-6	FS06	Total/NA	Solid	5035	
890-3426-7	FS07	Total/NA	Solid	5035	
890-3426-8	FS08	Total/NA	Solid	5035	
890-3426-9	FS09	Total/NA	Solid	5035	
890-3426-10	FS10	Total/NA	Solid	5035	
890-3426-11	FS11	Total/NA	Solid	5035	
890-3426-12	FS12	Total/NA	Solid	5035	
890-3426-13	FS13	Total/NA	Solid	5035	
890-3426-14	FS14	Total/NA	Solid	5035	
890-3426-15	FS15	Total/NA	Solid	5035	
890-3426-16	FS16	Total/NA	Solid	5035	
890-3426-17	FS17	Total/NA	Solid	5035	
890-3426-18	FS18	Total/NA	Solid	5035	
890-3426-19	FS19	Total/NA	Solid	5035	
890-3426-20	FS20	Total/NA	Solid	5035	
MB 880-39649/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39649/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39649/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## GC VOA (Continued)

## Prep Batch: 39649 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-1 MS	FS01	Total/NA	Solid	5035	
890-3426-1 MSD	FS01	Total/NA	Solid	5035	

## Prep Batch: 39650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-21	FS21	Total/NA	Solid	5035	
890-3426-22	FS22	Total/NA	Solid	5035	
890-3426-23	FS23	Total/NA	Solid	5035	
890-3426-24	FS24	Total/NA	Solid	5035	
890-3426-25	FS25	Total/NA	Solid	5035	
890-3426-26	FS26	Total/NA	Solid	5035	
890-3426-27	FS27	Total/NA	Solid	5035	
890-3426-28	FS28	Total/NA	Solid	5035	
890-3426-29	FS29	Total/NA	Solid	5035	
890-3426-30	FS30	Total/NA	Solid	5035	
890-3426-31	FS31	Total/NA	Solid	5035	
890-3426-32	FS32	Total/NA	Solid	5035	
890-3426-33	FS33	Total/NA	Solid	5035	
890-3426-34	FS34	Total/NA	Solid	5035	
890-3426-35	FS35	Total/NA	Solid	5035	
890-3426-36	FS36	Total/NA	Solid	5035	
890-3426-37	FS37	Total/NA	Solid	5035	
890-3426-38	FS38	Total/NA	Solid	5035	
890-3426-39	FS39	Total/NA	Solid	5035	
890-3426-40	FS40	Total/NA	Solid	5035	
MB 880-39650/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39650/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39650/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3426-21 MS	FS21	Total/NA	Solid	5035	
890-3426-21 MSD	FS21	Total/NA	Solid	5035	

## Analysis Batch: 39665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-1	FS01	Total/NA	Solid	8021B	39649
890-3426-2	FS02	Total/NA	Solid	8021B	39649
890-3426-3	FS03	Total/NA	Solid	8021B	39649
890-3426-4	FS04	Total/NA	Solid	8021B	39649
890-3426-5	FS05	Total/NA	Solid	8021B	39649
890-3426-6	FS06	Total/NA	Solid	8021B	39649
890-3426-7	FS07	Total/NA	Solid	8021B	39649
890-3426-8	FS08	Total/NA	Solid	8021B	39649
890-3426-9	FS09	Total/NA	Solid	8021B	39649
890-3426-10	FS10	Total/NA	Solid	8021B	39649
890-3426-11	FS11	Total/NA	Solid	8021B	39649
890-3426-12	FS12	Total/NA	Solid	8021B	39649
890-3426-13	FS13	Total/NA	Solid	8021B	39649
890-3426-14	FS14	Total/NA	Solid	8021B	39649
890-3426-15	FS15	Total/NA	Solid	8021B	39649
890-3426-16	FS16	Total/NA	Solid	8021B	39649
890-3426-17	FS17	Total/NA	Solid	8021B	39649
890-3426-18	FS18	Total/NA	Solid	8021B	39649

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## GC VOA (Continued)

## Analysis Batch: 39665 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-19	FS19	Total/NA	Solid	8021B	39649
890-3426-20	FS20	Total/NA	Solid	8021B	39649
MB 880-39649/5-A	Method Blank	Total/NA	Solid	8021B	39649
LCS 880-39649/1-A	Lab Control Sample	Total/NA	Solid	8021B	39649
LCSD 880-39649/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39649
890-3426-1 MS	FS01	Total/NA	Solid	8021B	39649
890-3426-1 MSD	FS01	Total/NA	Solid	8021B	39649

## Prep Batch: 39696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-41	FS41	Total/NA	Solid	5035	
890-3426-42	FS42	Total/NA	Solid	5035	
890-3426-43	FS43	Total/NA	Solid	5035	
890-3426-44	FS44	Total/NA	Solid	5035	
890-3426-45	FS45	Total/NA	Solid	5035	
890-3426-46	FS46	Total/NA	Solid	5035	
890-3426-47	FS47	Total/NA	Solid	5035	
890-3426-48	FS48	Total/NA	Solid	5035	
MB 880-39696/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39696/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39696/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3426-41 MS	FS41	Total/NA	Solid	5035	
890-3426-41 MSD	FS41	Total/NA	Solid	5035	

## Analysis Batch: 39734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-1	FS01	Total/NA	Solid	Total BTEX	
890-3426-2	FS02	Total/NA	Solid	Total BTEX	
890-3426-3	FS03	Total/NA	Solid	Total BTEX	
890-3426-4	FS04	Total/NA	Solid	Total BTEX	
890-3426-5	FS05	Total/NA	Solid	Total BTEX	
890-3426-6	FS06	Total/NA	Solid	Total BTEX	
890-3426-7	FS07	Total/NA	Solid	Total BTEX	
890-3426-8	FS08	Total/NA	Solid	Total BTEX	
890-3426-9	FS09	Total/NA	Solid	Total BTEX	
890-3426-10	FS10	Total/NA	Solid	Total BTEX	
890-3426-11	FS11	Total/NA	Solid	Total BTEX	
890-3426-12	FS12	Total/NA	Solid	Total BTEX	
890-3426-13	FS13	Total/NA	Solid	Total BTEX	
890-3426-14	FS14	Total/NA	Solid	Total BTEX	
890-3426-15	FS15	Total/NA	Solid	Total BTEX	
890-3426-16	FS16	Total/NA	Solid	Total BTEX	
890-3426-17	FS17	Total/NA	Solid	Total BTEX	
890-3426-18	FS18	Total/NA	Solid	Total BTEX	
890-3426-19	FS19	Total/NA	Solid	Total BTEX	
890-3426-20	FS20	Total/NA	Solid	Total BTEX	
890-3426-21	FS21	Total/NA	Solid	Total BTEX	
890-3426-22	FS22	Total/NA	Solid	Total BTEX	
890-3426-23	FS23	Total/NA	Solid	Total BTEX	
890-3426-24	FS24	Total/NA	Solid	Total BTEX	
890-3426-25	FS25	Total/NA	Solid	Total BTEX	

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## GC VOA (Continued)

## Analysis Batch: 39734 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-26	FS26	Total/NA	Solid	Total BTEX	
890-3426-27	FS27	Total/NA	Solid	Total BTEX	
890-3426-28	FS28	Total/NA	Solid	Total BTEX	
890-3426-29	FS29	Total/NA	Solid	Total BTEX	
890-3426-30	FS30	Total/NA	Solid	Total BTEX	
890-3426-31	FS31	Total/NA	Solid	Total BTEX	
890-3426-32	FS32	Total/NA	Solid	Total BTEX	
890-3426-33	FS33	Total/NA	Solid	Total BTEX	
890-3426-34	FS34	Total/NA	Solid	Total BTEX	
890-3426-35	FS35	Total/NA	Solid	Total BTEX	
890-3426-36	FS36	Total/NA	Solid	Total BTEX	
890-3426-37	FS37	Total/NA	Solid	Total BTEX	
890-3426-38	FS38	Total/NA	Solid	Total BTEX	
890-3426-39	FS39	Total/NA	Solid	Total BTEX	
890-3426-40	FS40	Total/NA	Solid	Total BTEX	
890-3426-41	FS41	Total/NA	Solid	Total BTEX	
890-3426-42	FS42	Total/NA	Solid	Total BTEX	
890-3426-43	FS43	Total/NA	Solid	Total BTEX	
890-3426-44	FS44	Total/NA	Solid	Total BTEX	
890-3426-45	FS45	Total/NA	Solid	Total BTEX	
890-3426-46	FS46	Total/NA	Solid	Total BTEX	
890-3426-47	FS47	Total/NA	Solid	Total BTEX	
890-3426-48	FS48	Total/NA	Solid	Total BTEX	

## Prep Batch: 39922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39922/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 39930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-41	FS41	Total/NA	Solid	8021B	39696
890-3426-42	FS42	Total/NA	Solid	8021B	39696
890-3426-43	FS43	Total/NA	Solid	8021B	39696
890-3426-44	FS44	Total/NA	Solid	8021B	39696
890-3426-45	FS45	Total/NA	Solid	8021B	39696
890-3426-46	FS46	Total/NA	Solid	8021B	39696
890-3426-47	FS47	Total/NA	Solid	8021B	39696
890-3426-48	FS48	Total/NA	Solid	8021B	39696
MB 880-39696/5-A	Method Blank	Total/NA	Solid	8021B	39696
MB 880-39922/5-A	Method Blank	Total/NA	Solid	8021B	39922
LCS 880-39696/1-A	Lab Control Sample	Total/NA	Solid	8021B	39696
LCSD 880-39696/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39696
890-3426-41 MS	FS41	Total/NA	Solid	8021B	39696
890-3426-41 MSD	FS41	Total/NA	Solid	8021B	39696

## GC Semi VOA

## Analysis Batch: 39385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-41	FS41	Total/NA	Solid	8015B NM	39418
890-3426-42	FS42	Total/NA	Solid	8015B NM	39418

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## GC Semi VOA (Continued)

## Analysis Batch: 39385 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-43	FS43	Total/NA	Solid	8015B NM	39418
890-3426-44	FS44	Total/NA	Solid	8015B NM	39418
890-3426-45	FS45	Total/NA	Solid	8015B NM	39418
890-3426-46	FS46	Total/NA	Solid	8015B NM	39418
890-3426-47	FS47	Total/NA	Solid	8015B NM	39418
890-3426-48	FS48	Total/NA	Solid	8015B NM	39418
MB 880-39418/1-A	Method Blank	Total/NA	Solid	8015B NM	39418
LCS 880-39418/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39418
LCSD 880-39418/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39418
890-3426-41 MS	FS41	Total/NA	Solid	8015B NM	39418
890-3426-41 MSD	FS41	Total/NA	Solid	8015B NM	39418

## Prep Batch: 39418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-41	FS41	Total/NA	Solid	8015NM Prep	
890-3426-42	FS42	Total/NA	Solid	8015NM Prep	
890-3426-43	FS43	Total/NA	Solid	8015NM Prep	
890-3426-44	FS44	Total/NA	Solid	8015NM Prep	
890-3426-45	FS45	Total/NA	Solid	8015NM Prep	
890-3426-46	FS46	Total/NA	Solid	8015NM Prep	
890-3426-47	FS47	Total/NA	Solid	8015NM Prep	
890-3426-48	FS48	Total/NA	Solid	8015NM Prep	
MB 880-39418/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39418/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39418/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3426-41 MS	FS41	Total/NA	Solid	8015NM Prep	
890-3426-41 MSD	FS41	Total/NA	Solid	8015NM Prep	

## Prep Batch: 39456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-1	FS01	Total/NA	Solid	8015NM Prep	
890-3426-2	FS02	Total/NA	Solid	8015NM Prep	
890-3426-3	FS03	Total/NA	Solid	8015NM Prep	
890-3426-4	FS04	Total/NA	Solid	8015NM Prep	
890-3426-5	FS05	Total/NA	Solid	8015NM Prep	
890-3426-6	FS06	Total/NA	Solid	8015NM Prep	
890-3426-7	FS07	Total/NA	Solid	8015NM Prep	
890-3426-8	FS08	Total/NA	Solid	8015NM Prep	
890-3426-9	FS09	Total/NA	Solid	8015NM Prep	
890-3426-10	FS10	Total/NA	Solid	8015NM Prep	
890-3426-11	FS11	Total/NA	Solid	8015NM Prep	
890-3426-12	FS12	Total/NA	Solid	8015NM Prep	
890-3426-13	FS13	Total/NA	Solid	8015NM Prep	
890-3426-14	FS14	Total/NA	Solid	8015NM Prep	
890-3426-15	FS15	Total/NA	Solid	8015NM Prep	
890-3426-16	FS16	Total/NA	Solid	8015NM Prep	
890-3426-17	FS17	Total/NA	Solid	8015NM Prep	
890-3426-18	FS18	Total/NA	Solid	8015NM Prep	
890-3426-19	FS19	Total/NA	Solid	8015NM Prep	
890-3426-20	FS20	Total/NA	Solid	8015NM Prep	
MB 880-39456/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## GC Semi VOA (Continued)

## Prep Batch: 39456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-39456/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39456/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3426-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-3426-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

## Prep Batch: 39457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-21	FS21	Total/NA	Solid	8015NM Prep	
890-3426-22	FS22	Total/NA	Solid	8015NM Prep	
890-3426-23	FS23	Total/NA	Solid	8015NM Prep	
890-3426-24	FS24	Total/NA	Solid	8015NM Prep	
890-3426-25	FS25	Total/NA	Solid	8015NM Prep	
890-3426-26	FS26	Total/NA	Solid	8015NM Prep	
890-3426-27	FS27	Total/NA	Solid	8015NM Prep	
890-3426-28	FS28	Total/NA	Solid	8015NM Prep	
890-3426-29	FS29	Total/NA	Solid	8015NM Prep	
890-3426-30	FS30	Total/NA	Solid	8015NM Prep	
890-3426-31	FS31	Total/NA	Solid	8015NM Prep	
890-3426-32	FS32	Total/NA	Solid	8015NM Prep	
890-3426-33	FS33	Total/NA	Solid	8015NM Prep	
890-3426-34	FS34	Total/NA	Solid	8015NM Prep	
890-3426-35	FS35	Total/NA	Solid	8015NM Prep	
890-3426-36	FS36	Total/NA	Solid	8015NM Prep	
890-3426-37	FS37	Total/NA	Solid	8015NM Prep	
890-3426-38	FS38	Total/NA	Solid	8015NM Prep	
890-3426-39	FS39	Total/NA	Solid	8015NM Prep	
890-3426-40	FS40	Total/NA	Solid	8015NM Prep	
MB 880-39457/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39457/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39457/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3426-21 MS	FS21	Total/NA	Solid	8015NM Prep	
890-3426-21 MSD	FS21	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 39571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-1	FS01	Total/NA	Solid	8015B NM	39456
890-3426-2	FS02	Total/NA	Solid	8015B NM	39456
890-3426-3	FS03	Total/NA	Solid	8015B NM	39456
890-3426-4	FS04	Total/NA	Solid	8015B NM	39456
890-3426-5	FS05	Total/NA	Solid	8015B NM	39456
890-3426-6	FS06	Total/NA	Solid	8015B NM	39456
890-3426-7	FS07	Total/NA	Solid	8015B NM	39456
890-3426-8	FS08	Total/NA	Solid	8015B NM	39456
890-3426-9	FS09	Total/NA	Solid	8015B NM	39456
890-3426-10	FS10	Total/NA	Solid	8015B NM	39456
890-3426-11	FS11	Total/NA	Solid	8015B NM	39456
890-3426-12	FS12	Total/NA	Solid	8015B NM	39456
890-3426-13	FS13	Total/NA	Solid	8015B NM	39456
890-3426-14	FS14	Total/NA	Solid	8015B NM	39456
890-3426-15	FS15	Total/NA	Solid	8015B NM	39456
890-3426-16	FS16	Total/NA	Solid	8015B NM	39456

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## GC Semi VOA (Continued)

## Analysis Batch: 39571 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-17	FS17	Total/NA	Solid	8015B NM	39456
890-3426-18	FS18	Total/NA	Solid	8015B NM	39456
890-3426-19	FS19	Total/NA	Solid	8015B NM	39456
890-3426-20	FS20	Total/NA	Solid	8015B NM	39456
MB 880-39456/1-A	Method Blank	Total/NA	Solid	8015B NM	39456
LCS 880-39456/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39456
LCSD 880-39456/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39456
890-3426-1 MS	FS01	Total/NA	Solid	8015B NM	39456
890-3426-1 MSD	FS01	Total/NA	Solid	8015B NM	39456

## Analysis Batch: 39573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-21	FS21	Total/NA	Solid	8015B NM	39457
890-3426-22	FS22	Total/NA	Solid	8015B NM	39457
890-3426-23	FS23	Total/NA	Solid	8015B NM	39457
890-3426-24	FS24	Total/NA	Solid	8015B NM	39457
890-3426-25	FS25	Total/NA	Solid	8015B NM	39457
890-3426-26	FS26	Total/NA	Solid	8015B NM	39457
890-3426-27	FS27	Total/NA	Solid	8015B NM	39457
890-3426-28	FS28	Total/NA	Solid	8015B NM	39457
890-3426-29	FS29	Total/NA	Solid	8015B NM	39457
890-3426-30	FS30	Total/NA	Solid	8015B NM	39457
890-3426-31	FS31	Total/NA	Solid	8015B NM	39457
890-3426-32	FS32	Total/NA	Solid	8015B NM	39457
890-3426-33	FS33	Total/NA	Solid	8015B NM	39457
890-3426-34	FS34	Total/NA	Solid	8015B NM	39457
890-3426-35	FS35	Total/NA	Solid	8015B NM	39457
890-3426-36	FS36	Total/NA	Solid	8015B NM	39457
890-3426-37	FS37	Total/NA	Solid	8015B NM	39457
890-3426-38	FS38	Total/NA	Solid	8015B NM	39457
890-3426-39	FS39	Total/NA	Solid	8015B NM	39457
890-3426-40	FS40	Total/NA	Solid	8015B NM	39457
MB 880-39457/1-A	Method Blank	Total/NA	Solid	8015B NM	39457
LCS 880-39457/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39457
LCSD 880-39457/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39457
890-3426-21 MS	FS21	Total/NA	Solid	8015B NM	39457
890-3426-21 MSD	FS21	Total/NA	Solid	8015B NM	39457

## Analysis Batch: 39621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-1	FS01	Total/NA	Solid	8015 NM	
890-3426-2	FS02	Total/NA	Solid	8015 NM	
890-3426-3	FS03	Total/NA	Solid	8015 NM	
890-3426-4	FS04	Total/NA	Solid	8015 NM	
890-3426-5	FS05	Total/NA	Solid	8015 NM	
890-3426-6	FS06	Total/NA	Solid	8015 NM	
890-3426-7	FS07	Total/NA	Solid	8015 NM	
890-3426-8	FS08	Total/NA	Solid	8015 NM	
890-3426-9	FS09	Total/NA	Solid	8015 NM	
890-3426-10	FS10	Total/NA	Solid	8015 NM	
890-3426-11	FS11	Total/NA	Solid	8015 NM	

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## GC Semi VOA (Continued)

## Analysis Batch: 39621 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-12	FS12	Total/NA	Solid	8015 NM	
890-3426-13	FS13	Total/NA	Solid	8015 NM	
890-3426-14	FS14	Total/NA	Solid	8015 NM	
890-3426-15	FS15	Total/NA	Solid	8015 NM	
890-3426-16	FS16	Total/NA	Solid	8015 NM	
890-3426-17	FS17	Total/NA	Solid	8015 NM	
890-3426-18	FS18	Total/NA	Solid	8015 NM	
890-3426-19	FS19	Total/NA	Solid	8015 NM	
890-3426-20	FS20	Total/NA	Solid	8015 NM	
890-3426-21	FS21	Total/NA	Solid	8015 NM	
890-3426-22	FS22	Total/NA	Solid	8015 NM	
890-3426-23	FS23	Total/NA	Solid	8015 NM	
890-3426-24	FS24	Total/NA	Solid	8015 NM	
890-3426-25	FS25	Total/NA	Solid	8015 NM	
890-3426-26	FS26	Total/NA	Solid	8015 NM	
890-3426-27	FS27	Total/NA	Solid	8015 NM	
890-3426-28	FS28	Total/NA	Solid	8015 NM	
890-3426-29	FS29	Total/NA	Solid	8015 NM	
890-3426-30	FS30	Total/NA	Solid	8015 NM	
890-3426-31	FS31	Total/NA	Solid	8015 NM	
890-3426-32	FS32	Total/NA	Solid	8015 NM	
890-3426-33	FS33	Total/NA	Solid	8015 NM	
890-3426-34	FS34	Total/NA	Solid	8015 NM	
890-3426-35	FS35	Total/NA	Solid	8015 NM	
890-3426-36	FS36	Total/NA	Solid	8015 NM	
890-3426-37	FS37	Total/NA	Solid	8015 NM	
890-3426-38	FS38	Total/NA	Solid	8015 NM	
890-3426-39	FS39	Total/NA	Solid	8015 NM	
890-3426-40	FS40	Total/NA	Solid	8015 NM	
890-3426-41	FS41	Total/NA	Solid	8015 NM	
890-3426-42	FS42	Total/NA	Solid	8015 NM	
890-3426-43	FS43	Total/NA	Solid	8015 NM	
890-3426-44	FS44	Total/NA	Solid	8015 NM	
890-3426-45	FS45	Total/NA	Solid	8015 NM	
890-3426-46	FS46	Total/NA	Solid	8015 NM	
890-3426-47	FS47	Total/NA	Solid	8015 NM	
890-3426-48	FS48	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 39445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-1	FS01	Soluble	Solid	DI Leach	
890-3426-2	FS02	Soluble	Solid	DI Leach	
890-3426-3	FS03	Soluble	Solid	DI Leach	
890-3426-4	FS04	Soluble	Solid	DI Leach	
890-3426-5	FS05	Soluble	Solid	DI Leach	
890-3426-6	FS06	Soluble	Solid	DI Leach	
890-3426-7	FS07	Soluble	Solid	DI Leach	
890-3426-8	FS08	Soluble	Solid	DI Leach	
890-3426-9	FS09	Soluble	Solid	DI Leach	

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## HPLC/IC (Continued)

## Leach Batch: 39445 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-10	FS10	Soluble	Solid	DI Leach	
890-3426-11	FS11	Soluble	Solid	DI Leach	
890-3426-12	FS12	Soluble	Solid	DI Leach	
890-3426-13	FS13	Soluble	Solid	DI Leach	
890-3426-14	FS14	Soluble	Solid	DI Leach	
890-3426-15	FS15	Soluble	Solid	DI Leach	
890-3426-16	FS16	Soluble	Solid	DI Leach	
890-3426-17	FS17	Soluble	Solid	DI Leach	
890-3426-18	FS18	Soluble	Solid	DI Leach	
890-3426-19	FS19	Soluble	Solid	DI Leach	
890-3426-20	FS20	Soluble	Solid	DI Leach	
MB 880-39445/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39445/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39445/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3426-1 MS	FS01	Soluble	Solid	DI Leach	
890-3426-1 MSD	FS01	Soluble	Solid	DI Leach	
890-3426-11 MS	FS11	Soluble	Solid	DI Leach	
890-3426-11 MSD	FS11	Soluble	Solid	DI Leach	

## Leach Batch: 39446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-21	FS21	Soluble	Solid	DI Leach	
890-3426-22	FS22	Soluble	Solid	DI Leach	
890-3426-23	FS23	Soluble	Solid	DI Leach	
890-3426-24	FS24	Soluble	Solid	DI Leach	
890-3426-25	FS25	Soluble	Solid	DI Leach	
890-3426-26	FS26	Soluble	Solid	DI Leach	
890-3426-27	FS27	Soluble	Solid	DI Leach	
890-3426-28	FS28	Soluble	Solid	DI Leach	
890-3426-29	FS29	Soluble	Solid	DI Leach	
890-3426-30	FS30	Soluble	Solid	DI Leach	
890-3426-31	FS31	Soluble	Solid	DI Leach	
890-3426-32	FS32	Soluble	Solid	DI Leach	
890-3426-33	FS33	Soluble	Solid	DI Leach	
890-3426-34	FS34	Soluble	Solid	DI Leach	
890-3426-35	FS35	Soluble	Solid	DI Leach	
890-3426-36	FS36	Soluble	Solid	DI Leach	
890-3426-37	FS37	Soluble	Solid	DI Leach	
890-3426-38	FS38	Soluble	Solid	DI Leach	
890-3426-39	FS39	Soluble	Solid	DI Leach	
890-3426-40	FS40	Soluble	Solid	DI Leach	
MB 880-39446/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39446/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39446/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3426-21 MS	FS21	Soluble	Solid	DI Leach	
890-3426-21 MSD	FS21	Soluble	Solid	DI Leach	
890-3426-31 MS	FS31	Soluble	Solid	DI Leach	
890-3426-31 MSD	FS31	Soluble	Solid	DI Leach	

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## HPLC/IC

## Leach Batch: 39447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-41	FS41	Soluble	Solid	DI Leach	
890-3426-42	FS42	Soluble	Solid	DI Leach	
890-3426-43	FS43	Soluble	Solid	DI Leach	
890-3426-44	FS44	Soluble	Solid	DI Leach	
890-3426-45	FS45	Soluble	Solid	DI Leach	
890-3426-46	FS46	Soluble	Solid	DI Leach	
890-3426-47	FS47	Soluble	Solid	DI Leach	
890-3426-48	FS48	Soluble	Solid	DI Leach	
MB 880-39447/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39447/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39447/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-21469-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-21469-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 39628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-1	FS01	Soluble	Solid	300.0	39445
890-3426-2	FS02	Soluble	Solid	300.0	39445
890-3426-3	FS03	Soluble	Solid	300.0	39445
890-3426-4	FS04	Soluble	Solid	300.0	39445
890-3426-5	FS05	Soluble	Solid	300.0	39445
890-3426-6	FS06	Soluble	Solid	300.0	39445
890-3426-7	FS07	Soluble	Solid	300.0	39445
890-3426-8	FS08	Soluble	Solid	300.0	39445
890-3426-9	FS09	Soluble	Solid	300.0	39445
890-3426-10	FS10	Soluble	Solid	300.0	39445
890-3426-11	FS11	Soluble	Solid	300.0	39445
890-3426-12	FS12	Soluble	Solid	300.0	39445
890-3426-13	FS13	Soluble	Solid	300.0	39445
890-3426-14	FS14	Soluble	Solid	300.0	39445
890-3426-15	FS15	Soluble	Solid	300.0	39445
890-3426-16	FS16	Soluble	Solid	300.0	39445
890-3426-17	FS17	Soluble	Solid	300.0	39445
890-3426-18	FS18	Soluble	Solid	300.0	39445
890-3426-19	FS19	Soluble	Solid	300.0	39445
890-3426-20	FS20	Soluble	Solid	300.0	39445
MB 880-39445/1-A	Method Blank	Soluble	Solid	300.0	39445
LCS 880-39445/2-A	Lab Control Sample	Soluble	Solid	300.0	39445
LCSD 880-39445/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39445
890-3426-1 MS	FS01	Soluble	Solid	300.0	39445
890-3426-1 MSD	FS01	Soluble	Solid	300.0	39445
890-3426-11 MS	FS11	Soluble	Solid	300.0	39445
890-3426-11 MSD	FS11	Soluble	Solid	300.0	39445

## Analysis Batch: 39633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-21	FS21	Soluble	Solid	300.0	39446
890-3426-22	FS22	Soluble	Solid	300.0	39446
890-3426-23	FS23	Soluble	Solid	300.0	39446
890-3426-24	FS24	Soluble	Solid	300.0	39446
890-3426-25	FS25	Soluble	Solid	300.0	39446

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## HPLC/IC (Continued)

## Analysis Batch: 39633 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-26	FS26	Soluble	Solid	300.0	39446
890-3426-27	FS27	Soluble	Solid	300.0	39446
890-3426-28	FS28	Soluble	Solid	300.0	39446
890-3426-29	FS29	Soluble	Solid	300.0	39446
890-3426-30	FS30	Soluble	Solid	300.0	39446
890-3426-31	FS31	Soluble	Solid	300.0	39446
890-3426-32	FS32	Soluble	Solid	300.0	39446
890-3426-33	FS33	Soluble	Solid	300.0	39446
890-3426-34	FS34	Soluble	Solid	300.0	39446
890-3426-35	FS35	Soluble	Solid	300.0	39446
890-3426-36	FS36	Soluble	Solid	300.0	39446
890-3426-37	FS37	Soluble	Solid	300.0	39446
890-3426-38	FS38	Soluble	Solid	300.0	39446
890-3426-39	FS39	Soluble	Solid	300.0	39446
890-3426-40	FS40	Soluble	Solid	300.0	39446
MB 880-39446/1-A	Method Blank	Soluble	Solid	300.0	39446
LCS 880-39446/2-A	Lab Control Sample	Soluble	Solid	300.0	39446
LCSD 880-39446/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39446
890-3426-21 MS	FS21	Soluble	Solid	300.0	39446
890-3426-21 MSD	FS21	Soluble	Solid	300.0	39446
890-3426-31 MS	FS31	Soluble	Solid	300.0	39446
890-3426-31 MSD	FS31	Soluble	Solid	300.0	39446

## Analysis Batch: 39640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3426-41	FS41	Soluble	Solid	300.0	39447
890-3426-42	FS42	Soluble	Solid	300.0	39447
890-3426-43	FS43	Soluble	Solid	300.0	39447
890-3426-44	FS44	Soluble	Solid	300.0	39447
890-3426-45	FS45	Soluble	Solid	300.0	39447
890-3426-46	FS46	Soluble	Solid	300.0	39447
890-3426-47	FS47	Soluble	Solid	300.0	39447
890-3426-48	FS48	Soluble	Solid	300.0	39447
MB 880-39447/1-A	Method Blank	Soluble	Solid	300.0	39447
LCS 880-39447/2-A	Lab Control Sample	Soluble	Solid	300.0	39447
LCSD 880-39447/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39447
880-21469-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	39447
880-21469-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39447

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Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS01  
Date Collected: 11/07/22 09:00  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-1  
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			4.99 g	5 mL	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 12:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 11:17	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		10			39628	11/15/22 15:35	CH	EET MID

Client Sample ID: FS02  
Date Collected: 11/07/22 09:45  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-2  
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			5.03 g	5 mL	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 13:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 12:22	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		10			39628	11/15/22 15:52	CH	EET MID

Client Sample ID: FS03  
Date Collected: 11/07/22 10:45  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-3  
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			5.01 g	5 mL	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 13:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 12:44	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		1			39628	11/15/22 15:57	CH	EET MID

Client Sample ID: FS04  
Date Collected: 11/07/22 10:50  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-4  
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			5.02 g	5 mL	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 13:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:31	SM	EET MID

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Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS04  
Date Collected: 11/07/22 10:50  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-4  
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			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 13:05	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		1			39628	11/16/22 13:44	CH	EET MID

Client Sample ID: FS05  
Date Collected: 11/07/22 11:55  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-5  
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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 14:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 13:26	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		1			39628	11/15/22 16:08	CH	EET MID

Client Sample ID: FS06  
Date Collected: 11/07/22 12:00  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-6  
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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 14:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 13:48	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		5			39628	11/15/22 16:25	CH	EET MID

Client Sample ID: FS07  
Date Collected: 11/07/22 12:05  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-7  
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			4.95 g	5 mL	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 15:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 14:09	SM	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS07

Lab Sample ID: 890-3426-7

Date Collected: 11/07/22 12:05

Matrix: Solid

Date Received: 11/10/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		5			39628	11/15/22 16:31	CH	EET MID

Client Sample ID: FS08

Lab Sample ID: 890-3426-8

Date Collected: 11/07/22 12:10

Matrix: Solid

Date Received: 11/10/22 13:33

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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 15:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 16:41	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 14:31	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		10			39628	11/15/22 16:37	CH	EET MID

Client Sample ID: FS09

Lab Sample ID: 890-3426-9

Date Collected: 11/07/22 12:40

Matrix: Solid

Date Received: 11/10/22 13:33

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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 16:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 16:41	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 14:52	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		5			39628	11/15/22 16:42	CH	EET MID

Client Sample ID: FS10

Lab Sample ID: 890-3426-10

Date Collected: 11/07/22 12:15

Matrix: Solid

Date Received: 11/10/22 13:33

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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 16:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 15:13	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		5			39628	11/15/22 16:48	CH	EET MID

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Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS11  
Date Collected: 11/07/22 12:20  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-11  
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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 18:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 16:07	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		5			39628	11/15/22 16:54	CH	EET MID

Client Sample ID: FS12  
Date Collected: 11/07/22 12:25  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-12  
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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 18:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 16:28	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		5			39628	11/15/22 17:11	CH	EET MID

Client Sample ID: FS13  
Date Collected: 11/07/22 12:30  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-13  
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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 19:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 16:50	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		10			39628	11/15/22 17:16	CH	EET MID

Client Sample ID: FS14  
Date Collected: 11/07/22 14:30  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-14  
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			5.02 g	5 mL	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 19:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS14

Lab Sample ID: 890-3426-14

Date Collected: 11/07/22 14:30

Matrix: Solid

Date Received: 11/10/22 13:33

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			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 17:11	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		20			39628	11/15/22 17:33	CH	EET MID

Client Sample ID: FS15

Lab Sample ID: 890-3426-15

Date Collected: 11/07/22 14:35

Matrix: Solid

Date Received: 11/10/22 13:33

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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 19:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 17:32	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		20			39628	11/15/22 17:39	CH	EET MID

Client Sample ID: FS16

Lab Sample ID: 890-3426-16

Date Collected: 11/07/22 14:40

Matrix: Solid

Date Received: 11/10/22 13:33

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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 20:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 17:54	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		20			39628	11/15/22 17:45	CH	EET MID

Client Sample ID: FS17

Lab Sample ID: 890-3426-17

Date Collected: 11/07/22 14:45

Matrix: Solid

Date Received: 11/10/22 13:33

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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 20:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 18:15	SM	EET MID

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Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS17  
Date Collected: 11/07/22 14:45  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-17  
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			5.04 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		20			39628	11/15/22 17:50	CH	EET MID

Client Sample ID: FS18  
Date Collected: 11/07/22 14:50  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-18  
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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 21:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 18:36	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		20			39628	11/15/22 17:56	CH	EET MID

Client Sample ID: FS19  
Date Collected: 11/07/22 14:55  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-19  
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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 21:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 18:58	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		20			39628	11/15/22 18:02	CH	EET MID

Client Sample ID: FS20  
Date Collected: 11/07/22 15:00  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-20  
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	39649	11/15/22 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39665	11/16/22 22:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39456	11/14/22 12:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39571	11/15/22 19:19	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	39445	11/14/22 11:38	KS	EET MID
Soluble	Analysis	300.0		20			39628	11/15/22 18:07	CH	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS21

Lab Sample ID: 890-3426-21

Date Collected: 11/07/22 15:05

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 11:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 11:17	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 19:07	CH	EET MID

Client Sample ID: FS22

Lab Sample ID: 890-3426-22

Date Collected: 11/07/22 15:10

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 12:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 12:22	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 19:24	CH	EET MID

Client Sample ID: FS23

Lab Sample ID: 890-3426-23

Date Collected: 11/07/22 15:15

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 12:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 12:44	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 19:30	CH	EET MID

Client Sample ID: FS24

Lab Sample ID: 890-3426-24

Date Collected: 11/08/22 11:30

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 12:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:33	SM	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

## Client Sample ID: FS24

## Lab Sample ID: 890-3426-24

Date Collected: 11/08/22 11:30

Matrix: Solid

Date Received: 11/10/22 13:33

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			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 13:05	SM	EET MID
Soluble	Leach	DI Leach			499 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 19:35	CH	EET MID

## Client Sample ID: FS25

## Lab Sample ID: 890-3426-25

Date Collected: 11/08/22 11:35

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 13:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 13:26	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 19:41	CH	EET MID

## Client Sample ID: FS26

## Lab Sample ID: 890-3426-26

Date Collected: 11/08/22 11:40

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 13:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 13:48	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		10			39633	11/15/22 19:58	CH	EET MID

## Client Sample ID: FS27

## Lab Sample ID: 890-3426-27

Date Collected: 11/08/22 11:45

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 13:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 14:09	SM	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS27

Lab Sample ID: 890-3426-27

Date Collected: 11/08/22 11:45

Matrix: Solid

Date Received: 11/10/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		5			39633	11/15/22 20:04	CH	EET MID

Client Sample ID: FS28

Lab Sample ID: 890-3426-28

Date Collected: 11/08/22 11:50

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 14:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 14:31	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 20:09	CH	EET MID

Client Sample ID: FS29

Lab Sample ID: 890-3426-29

Date Collected: 11/08/22 12:30

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 14:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 14:52	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 20:15	CH	EET MID

Client Sample ID: FS30

Lab Sample ID: 890-3426-30

Date Collected: 11/08/22 12:00

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 14:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/16/22 15:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 15:13	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		10			39633	11/15/22 20:21	CH	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS31

Lab Sample ID: 890-3426-31

Date Collected: 11/08/22 12:05

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 16:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 16:07	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		10			39633	11/15/22 20:26	CH	EET MID

Client Sample ID: FS32

Lab Sample ID: 890-3426-32

Date Collected: 11/08/22 12:10

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 16:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 16:28	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 20:43	CH	EET MID

Client Sample ID: FS33

Lab Sample ID: 890-3426-33

Date Collected: 11/08/22 10:10

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 17:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 16:50	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 20:49	CH	EET MID

Client Sample ID: FS34

Lab Sample ID: 890-3426-34

Date Collected: 11/08/22 10:15

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 17:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 09:42	SM	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS34

Lab Sample ID: 890-3426-34

Date Collected: 11/08/22 10:15

Matrix: Solid

Date Received: 11/10/22 13:33

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			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 17:11	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 21:06	CH	EET MID

Client Sample ID: FS35

Lab Sample ID: 890-3426-35

Date Collected: 11/08/22 10:20

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 17:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 17:32	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		10			39633	11/15/22 21:12	CH	EET MID

Client Sample ID: FS36

Lab Sample ID: 890-3426-36

Date Collected: 11/08/22 10:25

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 18:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 17:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 21:17	CH	EET MID

Client Sample ID: FS37

Lab Sample ID: 890-3426-37

Date Collected: 11/08/22 10:30

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 18:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 18:15	SM	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS37

Lab Sample ID: 890-3426-37

Date Collected: 11/08/22 10:30

Matrix: Solid

Date Received: 11/10/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 21:23	CH	EET MID

Client Sample ID: FS38

Lab Sample ID: 890-3426-38

Date Collected: 11/08/22 10:35

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 18:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 18:36	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		10			39633	11/15/22 21:29	CH	EET MID

Client Sample ID: FS39

Lab Sample ID: 890-3426-39

Date Collected: 11/08/22 10:40

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 19:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 18:58	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		10			39633	11/15/22 21:34	CH	EET MID

Client Sample ID: FS40

Lab Sample ID: 890-3426-40

Date Collected: 11/08/22 10:45

Matrix: Solid

Date Received: 11/10/22 13:33

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	39650	11/15/22 16:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39617	11/16/22 19:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/17/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/16/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39457	11/14/22 12:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39573	11/15/22 19:19	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39446	11/14/22 11:39	KS	EET MID
Soluble	Analysis	300.0		20			39633	11/15/22 21:40	CH	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS41

Lab Sample ID: 890-3426-41

Date Collected: 11/08/22 10:50

Matrix: Solid

Date Received: 11/10/22 13:33

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	39696	11/16/22 10:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39930	11/19/22 06:59	SM	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/21/22 18:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/15/22 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39418	11/14/22 10:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39385	11/14/22 21:39	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	39447	11/14/22 11:41	KS	EET MID
Soluble	Analysis	300.0		10			39640	11/15/22 22:48	CH	EET MID

Client Sample ID: FS42

Lab Sample ID: 890-3426-42

Date Collected: 11/08/22 10:55

Matrix: Solid

Date Received: 11/10/22 13:33

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	39696	11/16/22 10:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39930	11/19/22 07:26	SM	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/21/22 18:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/15/22 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39418	11/14/22 10:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39385	11/14/22 22:44	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	39447	11/14/22 11:41	KS	EET MID
Soluble	Analysis	300.0		20			39640	11/15/22 22:54	CH	EET MID

Client Sample ID: FS43

Lab Sample ID: 890-3426-43

Date Collected: 11/08/22 11:00

Matrix: Solid

Date Received: 11/10/22 13:33

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	39696	11/16/22 10:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39930	11/19/22 07:52	SM	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/21/22 18:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/15/22 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39418	11/14/22 10:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39385	11/14/22 23:06	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	39447	11/14/22 11:41	KS	EET MID
Soluble	Analysis	300.0		20			39640	11/15/22 22:59	CH	EET MID

Client Sample ID: FS44

Lab Sample ID: 890-3426-44

Date Collected: 11/08/22 11:05

Matrix: Solid

Date Received: 11/10/22 13:33

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	39696	11/16/22 10:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39930	11/19/22 08:20	SM	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/21/22 18:12	SM	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS44

Lab Sample ID: 890-3426-44

Date Collected: 11/08/22 11:05

Matrix: Solid

Date Received: 11/10/22 13:33

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			39621	11/15/22 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39418	11/14/22 10:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39385	11/14/22 23:27	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39447	11/14/22 11:41	KS	EET MID
Soluble	Analysis	300.0		10			39640	11/15/22 23:16	CH	EET MID

Client Sample ID: FS45

Lab Sample ID: 890-3426-45

Date Collected: 11/08/22 11:10

Matrix: Solid

Date Received: 11/10/22 13:33

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	39696	11/16/22 10:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39930	11/19/22 08:47	SM	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/21/22 18:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/15/22 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39418	11/14/22 10:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39385	11/14/22 23:49	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39447	11/14/22 11:41	KS	EET MID
Soluble	Analysis	300.0		20			39640	11/15/22 23:22	CH	EET MID

Client Sample ID: FS46

Lab Sample ID: 890-3426-46

Date Collected: 11/08/22 11:15

Matrix: Solid

Date Received: 11/10/22 13:33

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	39696	11/16/22 10:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39930	11/19/22 09:14	SM	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/21/22 18:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/15/22 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39418	11/14/22 10:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39385	11/15/22 00:10	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39447	11/14/22 11:41	KS	EET MID
Soluble	Analysis	300.0		10			39640	11/15/22 23:27	CH	EET MID

Client Sample ID: FS47

Lab Sample ID: 890-3426-47

Date Collected: 11/08/22 12:20

Matrix: Solid

Date Received: 11/10/22 13:33

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	39696	11/16/22 10:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39930	11/19/22 09:41	SM	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/21/22 18:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/15/22 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39418	11/14/22 10:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39385	11/15/22 00:31	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Client Sample ID: FS47  
Date Collected: 11/08/22 12:20  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-47  
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			5.03 g	50 mL	39447	11/14/22 11:41	KS	EET MID
Soluble	Analysis	300.0		20			39640	11/15/22 23:33	CH	EET MID

Client Sample ID: FS48  
Date Collected: 11/08/22 12:15  
Date Received: 11/10/22 13:33

Lab Sample ID: 890-3426-48  
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	39696	11/16/22 10:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39930	11/19/22 10:08	SM	EET MID
Total/NA	Analysis	Total BTEX		1			39734	11/21/22 18:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			39621	11/15/22 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39418	11/14/22 10:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39385	11/15/22 00:52	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	39447	11/14/22 11:41	KS	EET MID
Soluble	Analysis	300.0		20			39640	11/15/22 23:39	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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	T104704400-22-24	06-30-23

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
15

Method Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

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

**Protocol References:**

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

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

## Sample Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3426-1  
SDG: 03E1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3426-1	FS01	Solid	11/07/22 09:00	11/10/22 13:33	0.5'
890-3426-2	FS02	Solid	11/07/22 09:45	11/10/22 13:33	0.5'
890-3426-3	FS03	Solid	11/07/22 10:45	11/10/22 13:33	0.5'
890-3426-4	FS04	Solid	11/07/22 10:50	11/10/22 13:33	0.5'
890-3426-5	FS05	Solid	11/07/22 11:55	11/10/22 13:33	0.5'
890-3426-6	FS06	Solid	11/07/22 12:00	11/10/22 13:33	0.5'
890-3426-7	FS07	Solid	11/07/22 12:05	11/10/22 13:33	0.5'
890-3426-8	FS08	Solid	11/07/22 12:10	11/10/22 13:33	0.5'
890-3426-9	FS09	Solid	11/07/22 12:40	11/10/22 13:33	0.5'
890-3426-10	FS10	Solid	11/07/22 12:15	11/10/22 13:33	0.5'
890-3426-11	FS11	Solid	11/07/22 12:20	11/10/22 13:33	0.5'
890-3426-12	FS12	Solid	11/07/22 12:25	11/10/22 13:33	0.5'
890-3426-13	FS13	Solid	11/07/22 12:30	11/10/22 13:33	0.5'
890-3426-14	FS14	Solid	11/07/22 14:30	11/10/22 13:33	0.5'
890-3426-15	FS15	Solid	11/07/22 14:35	11/10/22 13:33	0.5'
890-3426-16	FS16	Solid	11/07/22 14:40	11/10/22 13:33	0.5'
890-3426-17	FS17	Solid	11/07/22 14:45	11/10/22 13:33	0.5'
890-3426-18	FS18	Solid	11/07/22 14:50	11/10/22 13:33	0.5'
890-3426-19	FS19	Solid	11/07/22 14:55	11/10/22 13:33	0.5'
890-3426-20	FS20	Solid	11/07/22 15:00	11/10/22 13:33	0.5'
890-3426-21	FS21	Solid	11/07/22 15:05	11/10/22 13:33	0.5'
890-3426-22	FS22	Solid	11/07/22 15:10	11/10/22 13:33	0.5'
890-3426-23	FS23	Solid	11/07/22 15:15	11/10/22 13:33	0.5'
890-3426-24	FS24	Solid	11/08/22 11:30	11/10/22 13:33	1'
890-3426-25	FS25	Solid	11/08/22 11:35	11/10/22 13:33	1'
890-3426-26	FS26	Solid	11/08/22 11:40	11/10/22 13:33	1'
890-3426-27	FS27	Solid	11/08/22 11:45	11/10/22 13:33	1'
890-3426-28	FS28	Solid	11/08/22 11:50	11/10/22 13:33	1'
890-3426-29	FS29	Solid	11/08/22 12:30	11/10/22 13:33	1'
890-3426-30	FS30	Solid	11/08/22 12:00	11/10/22 13:33	1'
890-3426-31	FS31	Solid	11/08/22 12:05	11/10/22 13:33	1'
890-3426-32	FS32	Solid	11/08/22 12:10	11/10/22 13:33	1'
890-3426-33	FS33	Solid	11/08/22 10:10	11/10/22 13:33	0.5'
890-3426-34	FS34	Solid	11/08/22 10:15	11/10/22 13:33	0.5'
890-3426-35	FS35	Solid	11/08/22 10:20	11/10/22 13:33	0.5'
890-3426-36	FS36	Solid	11/08/22 10:25	11/10/22 13:33	0.5'
890-3426-37	FS37	Solid	11/08/22 10:30	11/10/22 13:33	0.5'
890-3426-38	FS38	Solid	11/08/22 10:35	11/10/22 13:33	0.5'
890-3426-39	FS39	Solid	11/08/22 10:40	11/10/22 13:33	0.5'
890-3426-40	FS40	Solid	11/08/22 10:45	11/10/22 13:33	0.5'
890-3426-41	FS41	Solid	11/08/22 10:50	11/10/22 13:33	0.5'
890-3426-42	FS42	Solid	11/08/22 10:55	11/10/22 13:33	0.5'
890-3426-43	FS43	Solid	11/08/22 11:00	11/10/22 13:33	0.5'
890-3426-44	FS44	Solid	11/08/22 11:05	11/10/22 13:33	0.5'
890-3426-45	FS45	Solid	11/08/22 11:10	11/10/22 13:33	0.5'
890-3426-46	FS46	Solid	11/08/22 11:15	11/10/22 13:33	0.5'
890-3426-47	FS47	Solid	11/08/22 12:20	11/10/22 13:33	1'
890-3426-48	FS48	Solid	11/08/22 12:15	11/10/22 13:33	1'



# Environment Testing

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

## Chain of Custody

Work Order No: \_\_\_\_\_

www.xenco.com Page 1 of 5

Project Manager:	Kalei Jennings	Bill to: (if different)	Ganett Green
Company Name:	Enselum, LLC	Company Name:	XTO Energy
Address:	3122 Nat'l Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503	Email:	kjennings@enselum.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:	Nash 36	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03E1558117	Due Date:			
Project Location:	32.31651, -103.94173	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Meredith Roberts	Corrected Temperature:			
PO #:		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
SAMPLE RECEIPT		Thermometer ID:			
Samples Received Inact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:			
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Total Containers:					



890-3426 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Preservative Codes	Sample Comments
ES01	S	11/7/22	0900	0.5'	C	1	X BTEX X TPH X Chlorides	None: NO DI Water: H <sub>2</sub> O Cool: Cool MeOH: Me HCL: HC HNO <sub>3</sub> : HN H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> H <sub>2</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NASO <sub>3</sub> Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC	Incident #: NAPP222436187
ES02			0945						
ES03			1045						
ES04			1050						
ES05			1055						Cost Center: 1137151DD1
ES06			1200						
ES07			1205						
ES08			1210						
ES09			1240						
ES10			1215						

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<sub>2</sub> 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
<i>Meredith Roberts</i>	<i>Amada Stef</i>	11/10/22 1333			





# Environment Testing Xenco

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

## Chain of Custody

Work Order No: \_\_\_\_\_

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Page 2 of 5

Project Manager:	Kalci Jennings	Bill to: (if different)	Granett Green
Company Name:	Ensium, LLC	Company Name:	XTO Energy
Address:	3122 Nat'l Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503	Email:	kjennings@ensium.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:	Nash 36	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Prep. Code		ANALYSIS REQUEST		Preservative Codes
Incident Number:	NAPP 2224236187							None: NO Cool: Cool HCL: HCL H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub> Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC
Project Location:	32 Abilene-103.94173	Due Date:						DI Water: H <sub>2</sub> O MeOH: Me HNO <sub>3</sub> : HN NaOH: Na
Sampler's Name:	Meredith Roberts	TAT starts the day received by the lab, if received by 4:30pm						
P.O. #:								

Sample Comments										
Project #: 1137151001										
Incident #: 03E1558117										
Cost Center: 1137151001										
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	BTEX	Chlorides	TPH	
ES11	S	11/7/12	1220	0.5'	C	1	X	X	X	
ES12			1225							
ES13			1230	↓						
ES14			1430	0.5'						
ES15			1435							
ES16			1440							
ES17			1445							
ES18			1450							
ES19			1455							
ES20			1500							

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 <sub>2</sub> 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
Meredith Roberts	Granett Green	11/06/12 1333			



# Environment Testing

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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: \_\_\_\_\_

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Page 3 of 5

Project Manager:	Kalei Jennings	Bill to: (if different)	Garrett Green
Company Name:	Ensium, LLC	Company Name:	XTO Energy
Address:	3122 Nat'l Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	817.683.2503	Email:	kjennings@ensium.com

Work Order Comments	
Program: <input type="checkbox"/> 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:	Nash 36	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03E1558117				
Project Location:	323651, 103.94173	Due Date:			
Sampler's Name:	Meredith Roberts	TAT starts the day received by the lab, if received by 4:30pm			
PO #:					
SAMPLE RECEIPT					
Samples Received intact:	(Yes) No	Thermometer ID:			
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	Parameters	ANALYSIS REQUEST	Preservative Codes	Sample Comments
ES21	S	11/7/22	1505	0.5'	C	1	X BTEX		None: NO DI Water: H <sub>2</sub> O	Incident #: NAPP2224236187
ES22			1510				X TPH		Cool: Cool MeOH: Me	
ES23			1515				X Chlorides		HCL: HC HNO <sub>3</sub> : HN	
ES24		11/8/22	1130	1'					H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	Cost Center: 1137151001
ES25			1135						H <sub>3</sub> PO <sub>4</sub> : HP	
ES26			1140						NaHSO <sub>4</sub> : NABIS	
ES27			1145						Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	
ES28			1150						Zn Acetate+NaOH: Zn	
ES29			1230						NaOH+Ascorbic Acid: SAPC	
ES30			1200							

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<sub>2</sub> 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
<i>[Signature]</i>	<i>[Signature]</i>	11/10/22 1333			





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## Chain of Custody

Work Order No: \_\_\_\_\_

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Project Manager:	Kalei Jennings	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTD Energy
Address:	3122 Nat'l Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments	
Program: <input type="checkbox"/> 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: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	Nash 36	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code		ANALYSIS REQUEST	Preservative Codes
Project Number:	03E1558117	Due Date:					None: NO DI Water: H <sub>2</sub> O
Project Location:	32.31651, 103.94173	TAT starts the day received by the lab, if received by 4:30pm					Cool: Cool MeOH: Me
Sampler's Name:	Meredith Roberts	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				HCL: HC HNO <sub>3</sub> : HN
P.O. #:		Thermometer ID:	100-007				H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2				H <sub>3</sub> PO <sub>4</sub> : HP
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:	4.2				NaHSO <sub>4</sub> : NABIS
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Corrected Temperature:	4.0				Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub> : NaSO <sub>3</sub>
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						Zn Acetate+NaOH: Zn
Total Containers:							NaOH+Ascorbic Acid: SAC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Sample Comments
FS31	S	11/8/12	1205	1'	C	1	X BTEX	Incident #: NAPE222423b187
FS32			1210	0.5'			X TPH	
FS33			1015				X Chlorides	Cost Center: 1137151001
FS34			1020					
FS35			1025					
FS36			1030					
FS37			1035					
FS38			1040					
FS39			1045					
FS40								

Total 20027 / 6010 2008 / 6020: 8RCRA 13PPM Texas 1T Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO<sub>2</sub> 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

Note: 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>[Signature]</i>	<i>[Signature]</i>	11/03/12 1333			



**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

## Chain of Custody

**Work Order No:**

Page 5 of 5  
www.xenco.com

Project Manager:	Kalei Jennings		Bill to: (if different)	
Company Name:	Ensoium, LLC		Company Name:	
Address:	3122 Nati Parks Hwy		Address:	
City, State ZIP:	Carlsbad NM 88720		City, State ZIP:	
Phone:	817-683-2503	Email:		

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: <input type="text"/>

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont		Sample Comments
ES41	S	11/8/22	1050	0.5'	C	1	X	Incident #: NAPE2224236187
ES42			1055				X	
ES43			1100				X	Cost Center: 1137151001
ES44			1105				X	
ES45			1110				X	
ES46			1115				X	
ES47			1220				X	
ES48			1215				X	

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 <sub>2</sub>	Na	Sr	Tl	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	Tl	U	Hg:	1631 / 245.1 / 77470 / 77471											
<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																													
<i>[Signature]</i>	<i>[Signature]</i>	11/02/2013 13:33																																
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3																																		
5					6																													

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3426-1

SDG Number: 03E1558117

Login Number: 3426

List Number: 1

Creator: Stutzman, Amanda

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

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3426-1

SDG Number: 03E1558117

Login Number: 3426

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 11/14/22 08:39 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	

**Eurofins Carlsbad****Job Notes**

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

**Authorization**

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Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440





Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 12/19/2022 4:40:15 PM

## JOB DESCRIPTION

Nash 36  
SDG NUMBER 03E1558117

## JOB NUMBER

890-3601-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

**Eurofins Carlsbad****Job Notes**

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

**Authorization**

Generated  
12/19/2022 4:40:15 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Nash 36

Laboratory Job ID: 890-3601-1  
SDG: 03E1558117

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

## Qualifiers

## GC VOA

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

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

**Job ID: 890-3601-1**

**Laboratory: Eurofins Carlsbad**

### Narrative

#### Job Narrative 890-3601-1

#### Receipt

The samples were received on 12/7/2022 3:45 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 3.6°C

#### Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS49 (890-3601-1), FS50 (890-3601-2) and FS51 (890-3601-3).

#### GC VOA

Method 8021B: The following samples were diluted due to the nature of the sample matrix: (890-3601-A-1-C MS) and (890-3601-A-1-D MSD). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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 surrogate recovery for the blank associated with preparation batch 880-41491 and analytical batch 880-41523 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-41523/5), (LCS 880-41491/2-A) and (LCSD 880-41491/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The method blank for preparation batch 880-41491 and analytical batch 880-41523 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

#### 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: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

Client Sample ID: FS49

Lab Sample ID: 890-3601-1

Date Collected: 12/06/22 15:40

Matrix: Solid

Date Received: 12/07/22 15:45

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F2 F1	0.00200	mg/Kg		12/15/22 15:22	12/17/22 09:09	1
Toluene	<0.00200	U F1	0.00200	mg/Kg		12/15/22 15:22	12/17/22 09:09	1
Ethylbenzene	<0.00200	U F1	0.00200	mg/Kg		12/15/22 15:22	12/17/22 09:09	1
m-Xylene & p-Xylene	<0.00401	U F1	0.00401	mg/Kg		12/15/22 15:22	12/17/22 09:09	1
o-Xylene	<0.00200	U F1	0.00200	mg/Kg		12/15/22 15:22	12/17/22 09:09	1
Xylenes, Total	<0.00401	U F1	0.00401	mg/Kg		12/15/22 15:22	12/17/22 09:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	12/15/22 15:22	12/17/22 09:09	1
1,4-Difluorobenzene (Surr)	96		70 - 130	12/15/22 15:22	12/17/22 09:09	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			12/19/22 16:21	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/12/22 12:52	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/09/22 14:59	12/11/22 19:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/09/22 14:59	12/11/22 19:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/09/22 14:59	12/11/22 19:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	12/09/22 14:59	12/11/22 19:17	1
o-Terphenyl	111		70 - 130	12/09/22 14:59	12/11/22 19:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	89.0		5.00	mg/Kg			12/14/22 09:43	1

Client Sample ID: FS50

Lab Sample ID: 890-3601-2

Date Collected: 12/06/22 15:45

Matrix: Solid

Date Received: 12/07/22 15:45

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		12/15/22 15:22	12/17/22 09:30	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/15/22 15:22	12/17/22 09:30	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		12/15/22 15:22	12/17/22 09:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		12/15/22 15:22	12/17/22 09:30	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		12/15/22 15:22	12/17/22 09:30	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		12/15/22 15:22	12/17/22 09:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	12/15/22 15:22	12/17/22 09:30	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

Client Sample ID: FS50

Lab Sample ID: 890-3601-2

Date Collected: 12/06/22 15:45

Matrix: Solid

Date Received: 12/07/22 15:45

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	12/15/22 15:22	12/17/22 09:30	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			12/19/22 16:21	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/12/22 12:52	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/09/22 14:59	12/11/22 19:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/09/22 14:59	12/11/22 19:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/09/22 14:59	12/11/22 19:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			12/09/22 14:59	12/11/22 19:39	1
o-Terphenyl	104		70 - 130			12/09/22 14:59	12/11/22 19:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	232		24.9	mg/Kg			12/14/22 09:50	5

Client Sample ID: FS51

Lab Sample ID: 890-3601-3

Date Collected: 12/06/22 15:50

Matrix: Solid

Date Received: 12/07/22 15:45

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/15/22 15:22	12/17/22 09:50	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/15/22 15:22	12/17/22 09:50	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/15/22 15:22	12/17/22 09:50	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/15/22 15:22	12/17/22 09:50	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/15/22 15:22	12/17/22 09:50	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/15/22 15:22	12/17/22 09:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	12/15/22 15:22	12/17/22 09:50	1
1,4-Difluorobenzene (Surr)	93		70 - 130	12/15/22 15:22	12/17/22 09:50	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/19/22 16:21	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/12/22 12:52	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

Client Sample ID: FS51

Lab Sample ID: 890-3601-3

Date Collected: 12/06/22 15:50

Matrix: Solid

Date Received: 12/07/22 15:45

Sample Depth: 0.5'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/09/22 14:59	12/11/22 20:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/09/22 14:59	12/11/22 20:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/09/22 14:59	12/11/22 20:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			12/09/22 14:59	12/11/22 20:02	1
o-Terphenyl	100		70 - 130			12/09/22 14:59	12/11/22 20:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	310		25.2	mg/Kg			12/14/22 09:56	5

## Surrogate Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

## 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)
890-3601-1	FS49	103	96
890-3601-1 MS	FS49	85	92
890-3601-1 MSD	FS49	86	89
890-3601-2	FS50	112	95
890-3601-3	FS51	111	93
LCS 880-41943/1-A	Lab Control Sample	97	95
LCSD 880-41943/2-A	Lab Control Sample Dup	94	94
MB 880-41938/5-A	Method Blank	92	93
MB 880-41943/5-A	Method Blank	97	90
<b>Surrogate Legend</b>			
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)
880-22554-A-1-B MS	Matrix Spike	104	83
880-22554-A-1-C MSD	Matrix Spike Duplicate	109	86
890-3601-1	FS49	112	111
890-3601-2	FS50	103	104
890-3601-3	FS51	101	100
LCS 880-41491/2-A	Lab Control Sample	147 S1+	136 S1+
LCSD 880-41491/3-A	Lab Control Sample Dup	144 S1+	136 S1+
MB 880-41491/1-A	Method Blank	113	151 S1+
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

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

Lab Sample ID: MB 880-41938/5-A

Matrix: Solid

Analysis Batch: 41993

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 41938

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/15/22 14:55	12/16/22 22:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/15/22 14:55	12/16/22 22:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/15/22 14:55	12/16/22 22:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/15/22 14:55	12/16/22 22:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/15/22 14:55	12/16/22 22:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/15/22 14:55	12/16/22 22:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	12/15/22 14:55	12/16/22 22:04	1
1,4-Difluorobenzene (Surr)	93		70 - 130	12/15/22 14:55	12/16/22 22:04	1

Lab Sample ID: MB 880-41943/5-A

Matrix: Solid

Analysis Batch: 41993

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 41943

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/15/22 15:22	12/17/22 08:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/15/22 15:22	12/17/22 08:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/15/22 15:22	12/17/22 08:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/15/22 15:22	12/17/22 08:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/15/22 15:22	12/17/22 08:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/15/22 15:22	12/17/22 08:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	12/15/22 15:22	12/17/22 08:47	1
1,4-Difluorobenzene (Surr)	90		70 - 130	12/15/22 15:22	12/17/22 08:47	1

Lab Sample ID: LCS 880-41943/1-A

Matrix: Solid

Analysis Batch: 41993

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 41943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09030		mg/Kg		90	70 - 130
Toluene	0.100	0.08409		mg/Kg		84	70 - 130
Ethylbenzene	0.100	0.07938		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	0.200	0.1705		mg/Kg		85	70 - 130
o-Xylene	0.100	0.08759		mg/Kg		88	70 - 130

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

Lab Sample ID: LCSD 880-41943/2-A

Matrix: Solid

Analysis Batch: 41993

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 41943

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09270		mg/Kg		93	70 - 130	3	35

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

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

Lab Sample ID: LCSD 880-41943/2-A

Matrix: Solid

Analysis Batch: 41993

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 41943

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.08517		mg/Kg		85	70 - 130	1	35
Ethylbenzene	0.100	0.07903		mg/Kg		79	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.1679		mg/Kg		84	70 - 130	2	35
o-Xylene	0.100	0.08660		mg/Kg		87	70 - 130	1	35

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

Lab Sample ID: 890-3601-1 MS

Matrix: Solid

Analysis Batch: 41993

Client Sample ID: FS49

Prep Type: Total/NA

Prep Batch: 41943

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F2 F1	0.100	<0.00200	U F1	mg/Kg		1	70 - 130
Toluene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		0.6	70 - 130
Ethylbenzene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		0	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1	0.200	<0.00401	U F1	mg/Kg		0.6	70 - 130
o-Xylene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		0.5	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 890-3601-1 MSD

Matrix: Solid

Analysis Batch: 41993

Client Sample ID: FS49

Prep Type: Total/NA

Prep Batch: 41943

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F2 F1	0.0996	<0.00199	U F2 F1	mg/Kg		0.4	70 - 130	113	35
Toluene	<0.00200	U F1	0.0996	<0.00199	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00200	U F1	0.0996	<0.00199	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00401	U F1	0.199	<0.00398	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00200	U F1	0.0996	<0.00199	U F1	mg/Kg		0	70 - 130	NC	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

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

Lab Sample ID: MB 880-41491/1-A

Matrix: Solid

Analysis Batch: 41523

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 41491

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/09/22 14:59	12/11/22 09:16	1

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

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

Lab Sample ID: MB 880-41491/1-A

Matrix: Solid

Analysis Batch: 41523

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 41491

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/09/22 14:59	12/11/22 09:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/09/22 14:59	12/11/22 09:16	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			12/09/22 14:59	12/11/22 09:16	1
o-Terphenyl	151	S1+	70 - 130			12/09/22 14:59	12/11/22 09:16	1

Lab Sample ID: LCS 880-41491/2-A

Matrix: Solid

Analysis Batch: 41523

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 41491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	869.9		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1019		mg/Kg		102	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	147	S1+	70 - 130				
o-Terphenyl	136	S1+	70 - 130				

Lab Sample ID: LCSD 880-41491/3-A

Matrix: Solid

Analysis Batch: 41523

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 41491

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	857.3		mg/Kg		86	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	969.5		mg/Kg		97	70 - 130	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	144	S1+	70 - 130						
o-Terphenyl	136	S1+	70 - 130						

Lab Sample ID: 880-22554-A-1-B MS

Matrix: Solid

Analysis Batch: 41523

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 41491

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	997	824.4		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	943.6		mg/Kg		93	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	104		70 - 130						
o-Terphenyl	83		70 - 130						

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

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

Lab Sample ID: 880-22554-A-1-C MSD

Matrix: Solid

Analysis Batch: 41523

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 41491

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	1000	1006		mg/Kg		99	70 - 130	20	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	988.5		mg/Kg		97	70 - 130	5	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	109		70 - 130								
o-Terphenyl	86		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-41471/1-A

Matrix: Solid

Analysis Batch: 41738

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/14/22 08:09	1

Lab Sample ID: LCS 880-41471/2-A

Matrix: Solid

Analysis Batch: 41738

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 880-41471/3-A

Matrix: Solid

Analysis Batch: 41738

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	268.2		mg/Kg		107	90 - 110	5	20

Lab Sample ID: 890-3597-A-1-B MS

Matrix: Solid

Analysis Batch: 41738

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	21.6		253	261.3		mg/Kg		95	90 - 110

Lab Sample ID: 890-3597-A-1-C MSD

Matrix: Solid

Analysis Batch: 41738

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	21.6		253	262.7		mg/Kg		95	90 - 110	1	20

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

## GC VOA

## Prep Batch: 41938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-41938/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 41943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3601-1	FS49	Total/NA	Solid	5035	
890-3601-2	FS50	Total/NA	Solid	5035	
890-3601-3	FS51	Total/NA	Solid	5035	
MB 880-41943/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-41943/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-41943/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3601-1 MS	FS49	Total/NA	Solid	5035	
890-3601-1 MSD	FS49	Total/NA	Solid	5035	

## Analysis Batch: 41993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3601-1	FS49	Total/NA	Solid	8021B	41943
890-3601-2	FS50	Total/NA	Solid	8021B	41943
890-3601-3	FS51	Total/NA	Solid	8021B	41943
MB 880-41938/5-A	Method Blank	Total/NA	Solid	8021B	41938
MB 880-41943/5-A	Method Blank	Total/NA	Solid	8021B	41943
LCS 880-41943/1-A	Lab Control Sample	Total/NA	Solid	8021B	41943
LCSD 880-41943/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	41943
890-3601-1 MS	FS49	Total/NA	Solid	8021B	41943
890-3601-1 MSD	FS49	Total/NA	Solid	8021B	41943

## Analysis Batch: 42247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3601-1	FS49	Total/NA	Solid	Total BTEX	
890-3601-2	FS50	Total/NA	Solid	Total BTEX	
890-3601-3	FS51	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 41491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3601-1	FS49	Total/NA	Solid	8015NM Prep	
890-3601-2	FS50	Total/NA	Solid	8015NM Prep	
890-3601-3	FS51	Total/NA	Solid	8015NM Prep	
MB 880-41491/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-41491/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-41491/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-22554-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-22554-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 41523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3601-1	FS49	Total/NA	Solid	8015B NM	41491
890-3601-2	FS50	Total/NA	Solid	8015B NM	41491
890-3601-3	FS51	Total/NA	Solid	8015B NM	41491
MB 880-41491/1-A	Method Blank	Total/NA	Solid	8015B NM	41491
LCS 880-41491/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	41491

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QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

GC Semi VOA (Continued)

Analysis Batch: 41523 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-41491/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	41491
880-22554-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	41491
880-22554-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	41491

Analysis Batch: 41641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3601-1	FS49	Total/NA	Solid	8015 NM	
890-3601-2	FS50	Total/NA	Solid	8015 NM	
890-3601-3	FS51	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 41471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3601-1	FS49	Soluble	Solid	DI Leach	
890-3601-2	FS50	Soluble	Solid	DI Leach	
890-3601-3	FS51	Soluble	Solid	DI Leach	
MB 880-41471/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-41471/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-41471/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3597-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3597-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 41738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3601-1	FS49	Soluble	Solid	300.0	41471
890-3601-2	FS50	Soluble	Solid	300.0	41471
890-3601-3	FS51	Soluble	Solid	300.0	41471
MB 880-41471/1-A	Method Blank	Soluble	Solid	300.0	41471
LCS 880-41471/2-A	Lab Control Sample	Soluble	Solid	300.0	41471
LCSD 880-41471/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	41471
890-3597-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	41471
890-3597-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	41471

## Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

Client Sample ID: FS49

Lab Sample ID: 890-3601-1

Date Collected: 12/06/22 15:40

Matrix: Solid

Date Received: 12/07/22 15:45

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	41943	12/15/22 15:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	41993	12/17/22 09:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42247	12/19/22 16:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			41641	12/12/22 12:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	41491	12/09/22 14:59	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	41523	12/11/22 19:17	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	41471	12/09/22 13:16	KS	EET MID
Soluble	Analysis	300.0		1			41738	12/14/22 09:43	CH	EET MID

Client Sample ID: FS50

Lab Sample ID: 890-3601-2

Date Collected: 12/06/22 15:45

Matrix: Solid

Date Received: 12/07/22 15:45

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	41943	12/15/22 15:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	41993	12/17/22 09:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42247	12/19/22 16:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			41641	12/12/22 12:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	41491	12/09/22 14:59	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	41523	12/11/22 19:39	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	41471	12/09/22 13:16	KS	EET MID
Soluble	Analysis	300.0		5			41738	12/14/22 09:50	CH	EET MID

Client Sample ID: FS51

Lab Sample ID: 890-3601-3

Date Collected: 12/06/22 15:50

Matrix: Solid

Date Received: 12/07/22 15:45

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	41943	12/15/22 15:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	41993	12/17/22 09:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42247	12/19/22 16:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			41641	12/12/22 12:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	41491	12/09/22 14:59	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	41523	12/11/22 20:02	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	41471	12/09/22 13:16	KS	EET MID
Soluble	Analysis	300.0		5			41738	12/14/22 09:56	CH	EET MID

## Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

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	T104704400-22-24	06-30-23

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
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Method Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

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

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-3601-1  
SDG: 03E1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3601-1	FS49	Solid	12/06/22 15:40	12/07/22 15:45	0.5'
890-3601-2	FS50	Solid	12/06/22 15:45	12/07/22 15:45	0.5'
890-3601-3	FS51	Solid	12/06/22 15:50	12/07/22 15:45	0.5'

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**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

## Chain of Custody

**Work Order No:**

Page 1 of 1  
www.xenco.com

Project Manager:	Katei Jennings	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.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:	

<b>Project Name:</b>	Nash 36	<b>Turn Around</b>	<b>Pres. Code</b>	<b>ANALYSIS REQUEST</b>								<b>Preservative Codes</b>			
<b>Project Number:</b>	03E1558117	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush												None: NO	DI Water: H <sub>2</sub> O
<b>Project Location:</b>		<b>Due Date:</b>												Cool: Cool	MeOH: Me
<b>Sampler's Name:</b>	Connor Whitman													HCL: HC	HNO <sub>3</sub> : HN
<b>PO #:</b>														H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na
<b>SAMPLE RECEIPT</b>	<b>Temp Blank:</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No	<b>Thermometer ID:</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No	<b>Wet Ice:</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No								H <sub>3</sub> PO <sub>4</sub> : HP	
<b>Samples Received Inact:</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No		<b>Correction Factor:</b>											NaHSO <sub>4</sub> : NABIS	
<b>Cooler Custody Seals:</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No		<b>Temperature Reading:</b>											Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	
<b>Sample Custody Seals:</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No		<b>Corrected Temperature:</b>											Zn Acetate+NaOH: Zn	
<b>Total Containers:</b>														NaOH+Ascorbic Acid: SAPC	

[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 <sub>2</sub>
Sn	Na	Sr
Tl	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	Tl
U		
Hg: 1631 / 245, 1 / 7470 / 7471		

Notice: Signature of this document ratification of samples constitutes a valid purchase order from client company to Eurofins Xenno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenno 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 Xenno. A minimum charge of \$35.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenno, 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>Carla</i>	<i>Aracela</i>	12/7/2014			
3					
5					

Printed Date: 08/03/2016 09:20:00



## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3601-1

SDG Number: 03E1558117

Login Number: 3601

List Number: 1

Creator: Stutzman, Amanda

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

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3601-1

SDG Number: 03E1558117

Login Number: 3601

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 12/09/22 11:39 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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Tacoma Morrissey  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 2/20/2023 2:48:43 PM

## JOB DESCRIPTION

NASH 36  
SDG NUMBER 03E1558117

## JOB NUMBER

890-4090-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220



**Eurofins Carlsbad****Job Notes**

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

**Authorization**

Generated  
2/20/2023 2:48:43 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: NASH 36

Laboratory Job ID: 890-4090-1  
SDG: 03E1558117

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## Definitions/Glossary

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

## 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
*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.
¤	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: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

Job ID: 890-4090-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative  
890-4090-1

Receipt

The samples were received on 2/13/2023 10:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS29A (890-4090-1) and FS45A (890-4090-2).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46342 and analytical batch 880-46568 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is 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 RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46409 and analytical batch 880-46479 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

Client Sample ID: FS29A

Lab Sample ID: 890-4090-1

Date Collected: 02/10/23 14:15

Matrix: Solid

Date Received: 02/13/23 10:38

Sample Depth: 1.5

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/14/23 16:34	02/17/23 16:58	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/14/23 16:34	02/17/23 16:58	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/14/23 16:34	02/17/23 16:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/14/23 16:34	02/17/23 16:58	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/14/23 16:34	02/17/23 16:58	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/14/23 16:34	02/17/23 16:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	02/14/23 16:34	02/17/23 16:58	1
1,4-Difluorobenzene (Surr)	85		70 - 130	02/14/23 16:34	02/17/23 16:58	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/20/23 14:15	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	218		49.8	mg/Kg			02/19/23 12:25	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/15/23 11:56	02/17/23 02:52	1
Diesel Range Organics (Over C10-C28)	218	*1	49.8	mg/Kg		02/15/23 11:56	02/17/23 02:52	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/15/23 11:56	02/17/23 02:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	02/15/23 11:56	02/17/23 02:52	1
o-Terphenyl	104		70 - 130	02/15/23 11:56	02/17/23 02:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1430		25.0	mg/Kg			02/16/23 10:51	5

Client Sample ID: FS45A

Lab Sample ID: 890-4090-2

Date Collected: 02/10/23 14:20

Matrix: Solid

Date Received: 02/13/23 10:38

Sample Depth: 1

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 17:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 17:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 17:19	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/14/23 16:34	02/17/23 17:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 17:19	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/14/23 16:34	02/17/23 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	02/14/23 16:34	02/17/23 17:19	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

Client Sample ID: FS45A

Lab Sample ID: 890-4090-2

Date Collected: 02/10/23 14:20

Matrix: Solid

Date Received: 02/13/23 10:38

Sample Depth: 1

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	82		70 - 130	02/14/23 16:34	02/17/23 17:19	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/20/23 14:15	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	63.7		50.0	mg/Kg			02/19/23 12:25	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/17/23 03:15	1
Diesel Range Organics (Over C10-C28)	63.7	*1	50.0	mg/Kg		02/15/23 11:56	02/17/23 03:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/17/23 03:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130			02/15/23 11:56	02/17/23 03:15	1
o-Terphenyl	100		70 - 130			02/15/23 11:56	02/17/23 03:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1510		24.9	mg/Kg			02/16/23 10:56	5

## Surrogate Summary

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

## 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)
890-4089-A-1-B MS	Matrix Spike	126	114
890-4089-A-1-C MSD	Matrix Spike Duplicate	132 S1+	104
890-4090-1	FS29A	121	85
890-4090-2	FS45A	97	82
LCS 880-46342/1-A	Lab Control Sample	109	105
LCSD 880-46342/2-A	Lab Control Sample Dup	116	103
MB 880-46342/5-A	Method Blank	76	96
<b>Surrogate Legend</b>			
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)
880-24624-A-7-D MS	Matrix Spike	85	91
880-24624-A-7-E MSD	Matrix Spike Duplicate	99	107
890-4090-1	FS29A	93	104
890-4090-2	FS45A	84	100
LCS 880-46409/2-A	Lab Control Sample	98	113
LCSD 880-46409/3-A	Lab Control Sample Dup	85	99
MB 880-46409/1-A	Method Blank	85	108
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

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

Lab Sample ID: MB 880-46342/5-A

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46342

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/14/23 16:34	02/17/23 14:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	02/14/23 16:34	02/17/23 14:09	1
1,4-Difluorobenzene (Surr)	96		70 - 130	02/14/23 16:34	02/17/23 14:09	1

Lab Sample ID: LCS 880-46342/1-A

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1214		mg/Kg		121	70 - 130
Toluene	0.100	0.1106		mg/Kg		111	70 - 130
Ethylbenzene	0.100	0.1137		mg/Kg		114	70 - 130
m-Xylene & p-Xylene	0.200	0.2456		mg/Kg		123	70 - 130
o-Xylene	0.100	0.1219		mg/Kg		122	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-46342/2-A

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1054		mg/Kg		105	70 - 130	14	35
Toluene	0.100	0.1042		mg/Kg		104	70 - 130	6	35
Ethylbenzene	0.100	0.1073		mg/Kg		107	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2301		mg/Kg		115	70 - 130	6	35
o-Xylene	0.100	0.1157		mg/Kg		116	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-4089-A-1-B MS

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1 F2	0.100	0.1523	F1	mg/Kg		152	70 - 130
Toluene	<0.00202	U	0.100	0.09819		mg/Kg		98	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

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

Lab Sample ID: 890-4089-A-1-B MS

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.100	0.09453		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.200	0.2043		mg/Kg		102	70 - 130
o-Xylene	<0.00202	U	0.100	0.1039		mg/Kg		104	70 - 130
<b>MS MS</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	126		70 - 130						
1,4-Difluorobenzene (Surr)	114		70 - 130						

Lab Sample ID: 890-4089-A-1-C MSD

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00202	U F1 F2	0.0990	0.1032	F2	mg/Kg		104	70 - 130	38	35
Toluene	<0.00202	U	0.0990	0.09209		mg/Kg		93	70 - 130	6	35
Ethylbenzene	<0.00202	U	0.0990	0.09634		mg/Kg		97	70 - 130	2	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.2071		mg/Kg		105	70 - 130	1	35
o-Xylene	<0.00202	U	0.0990	0.1053		mg/Kg		106	70 - 130	1	35
<b>MSD MSD</b>											
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130								
1,4-Difluorobenzene (Surr)	104		70 - 130								

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

Lab Sample ID: MB 880-46409/1-A

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46409

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
<b>MB MB</b>								
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>		
1-Chlorooctane	85		70 - 130	02/15/23 11:56	02/16/23 19:48	1		
o-Terphenyl	108		70 - 130	02/15/23 11:56	02/16/23 19:48	1		

Lab Sample ID: LCS 880-46409/2-A

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1045		mg/Kg		104	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1061		mg/Kg		106	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

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

Lab Sample ID: LCS 880-46409/2-A  
Matrix: Solid  
Analysis Batch: 46479

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 46409

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: LCSD 880-46409/3-A  
Matrix: Solid  
Analysis Batch: 46479

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 46409

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	893.1		mg/Kg		89	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	1000	849.0	*1	mg/Kg		85	70 - 130	22	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 880-24624-A-7-D MS  
Matrix: Solid  
Analysis Batch: 46479

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 46409

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	1000	1023		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	940.4		mg/Kg		92	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 880-24624-A-7-E MSD  
Matrix: Solid  
Analysis Batch: 46479

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 46409

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	1000	1044		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	1103		mg/Kg		109	70 - 130	16	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	107		70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46319/1-A

Matrix: Solid

Analysis Batch: 46460

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/15/23 19:44	1

Lab Sample ID: LCS 880-46319/2-A

Matrix: Solid

Analysis Batch: 46460

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	244.1		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-46319/3-A

Matrix: Solid

Analysis Batch: 46460

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	256.0		mg/Kg		102	90 - 110	5	20

Lab Sample ID: 890-4089-A-4-B MS

Matrix: Solid

Analysis Batch: 46460

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	24.8		249	262.3		mg/Kg		95	90 - 110

Lab Sample ID: 890-4089-A-4-C MSD

Matrix: Solid

Analysis Batch: 46460

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	24.8		249	252.9		mg/Kg		92	90 - 110	4	20

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## QC Association Summary

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

## GC VOA

## Prep Batch: 46342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4090-1	FS29A	Total/NA	Solid	5035	
890-4090-2	FS45A	Total/NA	Solid	5035	
MB 880-46342/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46342/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46342/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4089-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4089-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 46568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4090-1	FS29A	Total/NA	Solid	8021B	46342
890-4090-2	FS45A	Total/NA	Solid	8021B	46342
MB 880-46342/5-A	Method Blank	Total/NA	Solid	8021B	46342
LCS 880-46342/1-A	Lab Control Sample	Total/NA	Solid	8021B	46342
LCSD 880-46342/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46342
890-4089-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46342
890-4089-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46342

## Analysis Batch: 46743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4090-1	FS29A	Total/NA	Solid	Total BTEX	
890-4090-2	FS45A	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 46409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4090-1	FS29A	Total/NA	Solid	8015NM Prep	
890-4090-2	FS45A	Total/NA	Solid	8015NM Prep	
MB 880-46409/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46409/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24624-A-7-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24624-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 46479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4090-1	FS29A	Total/NA	Solid	8015B NM	46409
890-4090-2	FS45A	Total/NA	Solid	8015B NM	46409
MB 880-46409/1-A	Method Blank	Total/NA	Solid	8015B NM	46409
LCS 880-46409/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46409
LCSD 880-46409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46409
880-24624-A-7-D MS	Matrix Spike	Total/NA	Solid	8015B NM	46409
880-24624-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46409

## Analysis Batch: 46668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4090-1	FS29A	Total/NA	Solid	8015 NM	
890-4090-2	FS45A	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

HPLC/IC

Leach Batch: 46319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4090-1	FS29A	Soluble	Solid	DI Leach	
890-4090-2	FS45A	Soluble	Solid	DI Leach	
MB 880-46319/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46319/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46319/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4089-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4089-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 46460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4090-1	FS29A	Soluble	Solid	300.0	46319
890-4090-2	FS45A	Soluble	Solid	300.0	46319
MB 880-46319/1-A	Method Blank	Soluble	Solid	300.0	46319
LCS 880-46319/2-A	Lab Control Sample	Soluble	Solid	300.0	46319
LCSD 880-46319/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46319
890-4089-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	46319
890-4089-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	46319

Lab Chronicle

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

Client Sample ID: FS29A  
Date Collected: 02/10/23 14:15  
Date Received: 02/13/23 10:38

Lab Sample ID: 890-4090-1  
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			5.03 g	5 mL	46342	02/14/23 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46568	02/17/23 16:58	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46743	02/20/23 14:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46668	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46479	02/17/23 02:52	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46319	02/14/23 13:16	KS	EET MID
Soluble	Analysis	300.0		5			46460	02/16/23 10:51	CH	EET MID

Client Sample ID: FS45A  
Date Collected: 02/10/23 14:20  
Date Received: 02/13/23 10:38

Lab Sample ID: 890-4090-2  
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	46342	02/14/23 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46568	02/17/23 17:19	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46743	02/20/23 14:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46668	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46479	02/17/23 03:15	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	46319	02/14/23 13:16	KS	EET MID
Soluble	Analysis	300.0		5			46460	02/16/23 10:56	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

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	T104704400-22-25	06-30-23

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: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum  
Project/Site: NASH 36

Job ID: 890-4090-1  
SDG: 03E1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4090-1	FS29A	Solid	02/10/23 14:15	02/13/23 10:38	1.5
890-4090-2	FS45A	Solid	02/10/23 14:20	02/13/23 10:38	1

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



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: \_\_\_\_\_

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Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolium	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.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:	Nash 36	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03E1558117	Due Date:			
Project Location:		TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Connor Whitman				
PO #:					
<b>SAMPLE RECEIPT</b>					
Samples Received In tact:	Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Correction Factor:			
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Temperature Reading:			
Total Containers:		Corrected Temperature:			
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grav/Comp
FS29A	S	2/10/23	2:15	1.5'	C
FS45A	S	2/10/23	2:20	1'	C



890-4090 Chain of Custody

ANALYSIS REQUEST	
CHLORIDES (EPA: 300.0)	
TPH (8015)	
BTEX (8021)	
Preservative Codes	
None: NO	DI Water: H <sub>2</sub> O
Cool: Cool	MeOH: Me
HCL: HC	HNO <sub>3</sub> : HN
H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na
H <sub>3</sub> PO <sub>4</sub> : HP	
NaHSO <sub>4</sub> : NABIS	
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	
Zn Acetate+NaOH: Zn	
NaOH+Ascorbic Acid: SACP	
Sample Comments	
Incident ID:	nAPP2224236187
Cost Center:	1137151001
A/E:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLOR	TPH (8	BTEX (	Sample Comments
FS29A	S	2/10/23	2:15	1.5'	C	1	/	/	/	Incident ID: nAPP2224236187
FS45A	S	2/10/23	2:20	1'	C	1	/	/	/	Cost Center: 1137151001
AFE:										
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 <sub>2</sub> 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>C. Smith</i>	<i>Garrett Green</i>	2-13-23 1038 <sup>2</sup>			
3		4			
5		6			

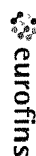


Eurofins Carlsbad

1089 N Canal St.

Carlsbad, NM 88220  
Phone 575-988-3199 Fax: 575-988-3199

## Chain of Custody Record



## Environment Testing

[illegible]

Eurofins Carlsbad

1089 N Canal St.  
Carlsbad, NM 88220  
Phone 575-988-3199 Fax: 575-988-3199

## Chain of Custody Record



## 1. Environment Testing

[illegible]

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4090-1

SDG Number: 03E1558117

Login Number: 4090

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

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4090-1

SDG Number: 03E1558117

Login Number: 4090

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 02/14/23 12:17 PM

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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Tacoma Morrissey  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 3/28/2023 12:18:18 PM

## JOB DESCRIPTION

Nash 36  
SDG NUMBER 03C1558117

## JOB NUMBER

890-4333-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

**Eurofins Carlsbad****Job Notes**

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

**Authorization**

Generated  
3/28/2023 12:18:18 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Nash 36

Laboratory Job ID: 890-4333-1  
SDG: 03C1558117

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Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
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: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

Job ID: 890-4333-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative  
890-4333-1

Receipt

The sample was received on 3/16/2023 11:18 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: FS29B (890-4333-1).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS29B (890-4333-1). 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 samples were outside control limits: (CCV 880-49069/20), (LCS 880-49075/2-A) and (LCSD 880-49075/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-49075 and analytical batch 880-49069 was outside the upper control 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: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

Client Sample ID: FS29B

Lab Sample ID: 890-4333-1

Date Collected: 03/16/23 09:15

Matrix: Solid

Date Received: 03/16/23 11:18

Sample Depth: 2'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		03/27/23 15:54	03/28/23 11:34	1
Toluene	<0.00198	U	0.00198	mg/Kg		03/27/23 15:54	03/28/23 11:34	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/27/23 15:54	03/28/23 11:34	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		03/27/23 15:54	03/28/23 11:34	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/27/23 15:54	03/28/23 11:34	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		03/27/23 15:54	03/28/23 11:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	148	S1+	70 - 130	03/27/23 15:54	03/28/23 11:34	1
1,4-Difluorobenzene (Surr)	106		70 - 130	03/27/23 15:54	03/28/23 11:34	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			03/28/23 12:55	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	276		49.9	mg/Kg			03/22/23 16:11	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/21/23 07:48	03/21/23 15:08	1
Diesel Range Organics (Over C10-C28)	220		49.9	mg/Kg		03/21/23 07:48	03/21/23 15:08	1
Oil Range Organics (Over C28-C36)	56.3		49.9	mg/Kg		03/21/23 07:48	03/21/23 15:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	03/21/23 07:48	03/21/23 15:08	1
o-Terphenyl	102		70 - 130	03/21/23 07:48	03/21/23 15:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2440		50.2	mg/Kg			03/26/23 11:15	10

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Surrogate Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

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)
880-26159-A-1-B MS	Matrix Spike	122	89
880-26159-A-1-C MSD	Matrix Spike Duplicate	130	126
890-4333-1	FS29B	148 S1+	106
LCS 880-49229/1-A	Lab Control Sample	127	121
LCSD 880-49229/2-A	Lab Control Sample Dup	120	78
MB 880-49229/5-A	Method Blank	85	92
MB 880-49341/5-A	Method Blank	75	86
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)
890-4333-1	FS29B	85	102
890-4337-A-11-F MS	Matrix Spike	106	115
890-4337-A-11-G MSD	Matrix Spike Duplicate	105	113
LCS 880-49075/2-A	Lab Control Sample	124	152 S1+
LCSD 880-49075/3-A	Lab Control Sample Dup	126	156 S1+
MB 880-49075/1-A	Method Blank	135 S1+	164 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

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

Lab Sample ID: MB 880-49229/5-A

Matrix: Solid

Analysis Batch: 49563

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49229

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/22/23 15:54	03/28/23 01:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/22/23 15:54	03/28/23 01:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/22/23 15:54	03/28/23 01:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/22/23 15:54	03/28/23 01:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/22/23 15:54	03/28/23 01:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/22/23 15:54	03/28/23 01:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	03/22/23 15:54	03/28/23 01:21	1
1,4-Difluorobenzene (Surr)	92		70 - 130	03/22/23 15:54	03/28/23 01:21	1

Lab Sample ID: LCS 880-49229/1-A

Matrix: Solid

Analysis Batch: 49563

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49229

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	0.09600		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.1072		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2198		mg/Kg		110	70 - 130
o-Xylene	0.100	0.1068		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	127		70 - 130
1,4-Difluorobenzene (Surr)	121		70 - 130

Lab Sample ID: LCSD 880-49229/2-A

Matrix: Solid

Analysis Batch: 49563

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49229

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1005		mg/Kg		100	70 - 130	12	35
Toluene	0.100	0.1011		mg/Kg		101	70 - 130	5	35
Ethylbenzene	0.100	0.1085		mg/Kg		108	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2223		mg/Kg		111	70 - 130	1	35
o-Xylene	0.100	0.1089		mg/Kg		109	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	78		70 - 130

Lab Sample ID: 880-26159-A-1-B MS

Matrix: Solid

Analysis Batch: 49563

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49229

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1104		mg/Kg		110	70 - 130
Toluene	<0.00200	U	0.100	0.09977		mg/Kg		99	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

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

Lab Sample ID: 880-26159-A-1-B MS

Matrix: Solid

Analysis Batch: 49563

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49229

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1046		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.201	0.2141		mg/Kg		107	70 - 130
o-Xylene	<0.00200	U	0.100	0.1028		mg/Kg		102	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 880-26159-A-1-C MSD

Matrix: Solid

Analysis Batch: 49563

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49229

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.1088		mg/Kg		110	70 - 130	1	35
Toluene	<0.00200	U	0.0990	0.09767		mg/Kg		99	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.0990	0.1048		mg/Kg		106	70 - 130	0	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.2159		mg/Kg		109	70 - 130	1	35
o-Xylene	<0.00200	U	0.0990	0.1032		mg/Kg		104	70 - 130	0	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	130		70 - 130
1,4-Difluorobenzene (Surr)	126		70 - 130

Lab Sample ID: MB 880-49341/5-A

Matrix: Solid

Analysis Batch: 49563

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49341

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/23/23 15:59	03/27/23 11:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/23/23 15:59	03/27/23 11:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/23/23 15:59	03/27/23 11:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/23/23 15:59	03/27/23 11:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/23/23 15:59	03/27/23 11:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/23/23 15:59	03/27/23 11:48	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	03/23/23 15:59	03/27/23 11:48	1
1,4-Difluorobenzene (Surr)	86		70 - 130	03/23/23 15:59	03/27/23 11:48	1

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

Lab Sample ID: MB 880-49075/1-A

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49075

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/21/23 07:48	03/21/23 08:28	1

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

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

Lab Sample ID: MB 880-49075/1-A

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49075

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/21/23 07:48	03/21/23 08:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/21/23 07:48	03/21/23 08:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	135	S1+	70 - 130			03/21/23 07:48	03/21/23 08:28	1
o-Terphenyl	164	S1+	70 - 130			03/21/23 07:48	03/21/23 08:28	1

Lab Sample ID: LCS 880-49075/2-A

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49075

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1095		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	999.9		mg/Kg		100	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	124		70 - 130				
o-Terphenyl	152	S1+	70 - 130				

Lab Sample ID: LCSD 880-49075/3-A

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49075

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1101		mg/Kg		110	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	1017		mg/Kg		102	70 - 130	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	126		70 - 130						
o-Terphenyl	156	S1+	70 - 130						

Lab Sample ID: 890-4337-A-11-F MS

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49075

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	998	988.0		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1114		mg/Kg		112	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	106		70 - 130						
o-Terphenyl	115		70 - 130						

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

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

Lab Sample ID: 890-4337-A-11-G MSD

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49075

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	992.8		mg/Kg		96	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1093		mg/Kg		109	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	105		70 - 130								
o-Terphenyl	113		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49271/1-A

Matrix: Solid

Analysis Batch: 49506

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/26/23 10:07	1

Lab Sample ID: LCS 880-49271/2-A

Matrix: Solid

Analysis Batch: 49506

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 880-49271/3-A

Matrix: Solid

Analysis Batch: 49506

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	262.4		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-4320-A-6-C MS

Matrix: Solid

Analysis Batch: 49506

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	148		251	409.7		mg/Kg		104	90 - 110

Lab Sample ID: 890-4320-A-6-D MSD

Matrix: Solid

Analysis Batch: 49506

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	148		251	410.0		mg/Kg		104	90 - 110	0	20

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

## GC VOA

## Prep Batch: 49229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4333-1	FS29B	Total/NA	Solid	5035	
MB 880-49229/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49229/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49229/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-26159-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-26159-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Prep Batch: 49341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-49341/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 49563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4333-1	FS29B	Total/NA	Solid	8021B	49229
MB 880-49229/5-A	Method Blank	Total/NA	Solid	8021B	49229
MB 880-49341/5-A	Method Blank	Total/NA	Solid	8021B	49341
LCS 880-49229/1-A	Lab Control Sample	Total/NA	Solid	8021B	49229
LCSD 880-49229/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49229
880-26159-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	49229
880-26159-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49229

## Analysis Batch: 49749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4333-1	FS29B	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 49069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4333-1	FS29B	Total/NA	Solid	8015B NM	49075
MB 880-49075/1-A	Method Blank	Total/NA	Solid	8015B NM	49075
LCS 880-49075/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49075
LCSD 880-49075/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49075
890-4337-A-11-F MS	Matrix Spike	Total/NA	Solid	8015B NM	49075
890-4337-A-11-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	49075

## Prep Batch: 49075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4333-1	FS29B	Total/NA	Solid	8015NM Prep	
MB 880-49075/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49075/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49075/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4337-A-11-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4337-A-11-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 49233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4333-1	FS29B	Total/NA	Solid	8015 NM	

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

## HPLC/IC

## Leach Batch: 49271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4333-1	FS29B	Soluble	Solid	DI Leach	
MB 880-49271/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49271/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49271/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4320-A-6-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4320-A-6-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 49506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4333-1	FS29B	Soluble	Solid	300.0	49271
MB 880-49271/1-A	Method Blank	Soluble	Solid	300.0	49271
LCS 880-49271/2-A	Lab Control Sample	Soluble	Solid	300.0	49271
LCSD 880-49271/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49271
890-4320-A-6-C MS	Matrix Spike	Soluble	Solid	300.0	49271
890-4320-A-6-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49271

Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

Client Sample ID: FS29B  
Date Collected: 03/16/23 09:15  
Date Received: 03/16/23 11:18

Lab Sample ID: 890-4333-1  
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			5.05 g	5 mL	49229	03/27/23 15:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49563	03/28/23 11:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49749	03/28/23 12:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49075	03/21/23 07:48	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49069	03/21/23 15:08	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	49271	03/22/23 22:21	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	49506	03/26/23 11:15	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

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	T104704400-22-25	06-30-23

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: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 890-4333-1  
SDG: 03C1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4333-1	FS29B	Solid	03/16/23 09:15	03/16/23 11:18	2'

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





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) 392-7650, Carlsbad, NM (575) 988-3199

**Work Order No:**

www.xenco.com Page 1 of 1

Project Manager:	Tacomia Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 86220	City, State ZIP:	Carlsbad, NM 86220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.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:				Nash 36				Turn Around				Pres. Code			
Project Number:				03C1558117				<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush							
Project Location:								Due Date:							
Sampler's Name:				Connor Whitman				TAT starts the day received by the lab. if received by 4:30pm							
PO #:															
<b>SAMPLE RECEIPT</b>				Temp Blank:				<input checked="" type="radio"/> Yes <input type="radio"/> No				Thermometer ID:			
Samples Received Intact:				<input checked="" type="radio"/> Yes <input type="radio"/> No								Correction Factor:			
Cooler Custody Seals:				<input checked="" type="radio"/> Yes <input type="radio"/> No				N/A				Temperature Reading:			
Sample Custody Seals:				<input checked="" type="radio"/> Yes <input type="radio"/> No				N/A				Corrected Temperature:			
Total Containers:															
<b>Parameters</b>															
RIDES (EPA: 3000.0)															
<div style="display: flex; justify-content: space-between;"> <div>           015)            8021)         </div> <div style="text-align: center;">  <p>890-4333 Chain of Custody</p> </div> </div>															
<b>ANALYSIS REQUEST</b>															
<b>Preservative Codes</b>															
None: NO				DI Water: H <sub>2</sub> O											
Cool: Cool				MeOH: Me											
HCL: HC				HNO <sub>3</sub> : HN											
H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>				NaOH: Na											
H <sub>3</sub> PO <sub>4</sub> : HP															
NaHSO <sub>4</sub> : NABIS															
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>															
Zn Acetate+NaOH: Zn															
NaOH+Ascorbic Acid: SASC															

[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 <sub>2</sub> Na Sr Ti Sn U V Zn	
TCLP / SPLP 6010:	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 163.1 / 245.1 / 7470 / 7471

Notice: Signature of this document by filling in/initialing of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions to service. Eurofins Xeno 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 Xeno. A minimum charge of \$45.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xeno, 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>Chh</i>	<i>Chh</i>	3-16-23 1118	2		
3			4		
5			6		

Printed Date: 03/16/2023 15:47:20

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4333-1

SDG Number: 03C1558117

Login Number: 4333

List Number: 1

Creator: Stutzman, Amanda

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

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4333-1

SDG Number: 03C1558117

Login Number: 4333

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 03/17/23 11:17 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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Ben Belill

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 8/25/2023 12:04:22 PM

## JOB DESCRIPTION

Nash Unit36

SDG NUMBER 03C1558117

## JOB NUMBER

890-5103-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
8/25/2023 12:04:22 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Nash Unit36

Laboratory Job ID: 890-5103-1  
SDG: 03C1558117

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

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

## HPLC/IC

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
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: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

**Job ID: 890-5103-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-5103-1****Receipt**

The sample was received on 8/15/2023 3:02 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: FS32A (890-5103-1).

**GC VOA**

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-60963 recovered below the lower control limit for Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-60963/20).

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 surrogate recovery for the blank associated with preparation batch 880-61008 and analytical batch 880-60954 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-61008/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (880-32232-A-1-F MS) and (880-32232-A-1-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60954/31), (CCV 880-60954/47) and (CCV 880-60954/58). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The method blank for preparation batch 880-61008 and analytical batch 880-60954 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD\_NM: The matrix spike duplicate (MSD) recoveries for preparation batch 880-61008 and analytical batch 880-60954 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

**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: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

Client Sample ID: FS32A

Lab Sample ID: 890-5103-1

Date Collected: 08/14/23 10:30

Matrix: Solid

Date Received: 08/15/23 15:02

Sample Depth: 1.5

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/24/23 09:32	08/24/23 20:39	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/24/23 09:32	08/24/23 20:39	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/24/23 09:32	08/24/23 20:39	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		08/24/23 09:32	08/24/23 20:39	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/24/23 09:32	08/24/23 20:39	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		08/24/23 09:32	08/24/23 20:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130			08/24/23 09:32	08/24/23 20:39	1
1,4-Difluorobenzene (Surr)	92		70 - 130			08/24/23 09:32	08/24/23 20:39	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			08/25/23 09:19	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	62.2		50.4	mg/Kg			08/25/23 11:47	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		08/24/23 11:58	08/25/23 04:40	1
Diesel Range Organics (Over C10-C28)	62.2		50.4	mg/Kg		08/24/23 11:58	08/25/23 04:40	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		08/24/23 11:58	08/25/23 04:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			08/24/23 11:58	08/25/23 04:40	1
o-Terphenyl	98		70 - 130			08/24/23 11:58	08/25/23 04:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3420		50.0	mg/Kg			08/19/23 02:38	10

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## Surrogate Summary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

## 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)
880-32411-A-1-B MS	Matrix Spike	89	93
880-32411-A-1-C MSD	Matrix Spike Duplicate	79	96
890-5103-1	FS32A	88	92
LCS 880-60970/1-A	Lab Control Sample	74	88
LCSD 880-60970/2-A	Lab Control Sample Dup	92	89
MB 880-60970/5-A	Method Blank	95	112

## 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)
880-32232-A-1-F MS	Matrix Spike	131 S1+	95
880-32232-A-1-G MSD	Matrix Spike Duplicate	141 S1+	106
890-5103-1	FS32A	120	98
LCS 880-61008/2-A	Lab Control Sample	111	106
LCSD 880-61008/3-A	Lab Control Sample Dup	133 S1+	112
MB 880-61008/1-A	Method Blank	200 S1+	162 S1+

## Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

## QC Sample Results

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

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

Lab Sample ID: MB 880-60970/5-A

Matrix: Solid

Analysis Batch: 60963

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60970

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/23 09:32	08/24/23 13:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/23 09:32	08/24/23 13:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/23 09:32	08/24/23 13:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/24/23 09:32	08/24/23 13:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/23 09:32	08/24/23 13:28	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/24/23 09:32	08/24/23 13:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	08/24/23 09:32	08/24/23 13:28	1
1,4-Difluorobenzene (Surr)	112		70 - 130	08/24/23 09:32	08/24/23 13:28	1

Lab Sample ID: LCS 880-60970/1-A

Matrix: Solid

Analysis Batch: 60963

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60970

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08894		mg/Kg		89	70 - 130
Toluene	0.100	0.09456		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.07908		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	0.200	0.1497		mg/Kg		75	70 - 130
o-Xylene	0.100	0.07027		mg/Kg		70	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	74		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: LCSD 880-60970/2-A

Matrix: Solid

Analysis Batch: 60963

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 60970

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1011		mg/Kg		101	70 - 130	13	35
Toluene	0.100	0.1041		mg/Kg		104	70 - 130	10	35
Ethylbenzene	0.100	0.09884		mg/Kg		99	70 - 130	22	35
m-Xylene & p-Xylene	0.200	0.2018		mg/Kg		101	70 - 130	30	35
o-Xylene	0.100	0.09357		mg/Kg		94	70 - 130	28	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 880-32411-A-1-B MS

Matrix: Solid

Analysis Batch: 60963

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 60970

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0996	0.09051		mg/Kg		91	70 - 130
Toluene	<0.00199	U	0.0996	0.09517		mg/Kg		95	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

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

Lab Sample ID: 880-32411-A-1-B MS

Matrix: Solid

Analysis Batch: 60963

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 60970

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0996	0.08335		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1593		mg/Kg		80	70 - 130
o-Xylene	<0.00199	U	0.0996	0.07229		mg/Kg		72	70 - 130
Surrogate	%Recovery	MS Qualifier	MS Limits						
4-Bromofluorobenzene (Surr)	89		70 - 130						
1,4-Difluorobenzene (Surr)	93		70 - 130						

Lab Sample ID: 880-32411-A-1-C MSD

Matrix: Solid

Analysis Batch: 60963

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 60970

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09915		mg/Kg		99	70 - 130	9	35
Toluene	<0.00199	U	0.100	0.09538		mg/Kg		94	70 - 130	0	35
Ethylbenzene	<0.00199	U	0.100	0.07873		mg/Kg		79	70 - 130	6	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1546		mg/Kg		77	70 - 130	3	35
o-Xylene	<0.00199	U	0.100	0.07085		mg/Kg		70	70 - 130	2	35
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	79		70 - 130								
1,4-Difluorobenzene (Surr)	96		70 - 130								

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

Lab Sample ID: MB 880-61008/1-A

Matrix: Solid

Analysis Batch: 60954

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 61008

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/24/23 11:58	08/24/23 19:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/23 11:58	08/24/23 19:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/23 11:58	08/24/23 19:47	1
Surrogate	%Recovery	MB Qualifier	MB Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	200	S1+	70 - 130			08/24/23 11:58	08/24/23 19:47	1
o-Terphenyl	162	S1+	70 - 130			08/24/23 11:58	08/24/23 19:47	1

Lab Sample ID: LCS 880-61008/2-A

Matrix: Solid

Analysis Batch: 60954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 61008

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	843.3		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	1000	837.0		mg/Kg		84	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

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

Lab Sample ID: LCS 880-61008/2-A  
Matrix: Solid  
Analysis Batch: 60954

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 61008

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-61008/3-A  
Matrix: Solid  
Analysis Batch: 60954

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 61008

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	18	20
Diesel Range Organics (Over C10-C28)	1000	1023		mg/Kg		102	70 - 130	20	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	133	S1+	70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: 880-32232-A-1-F MS  
Matrix: Solid  
Analysis Batch: 60954

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 61008

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	<50.5	U	996	994.3		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.5	U F1	996	1233		mg/Kg		121	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: 880-32232-A-1-G MSD  
Matrix: Solid  
Analysis Batch: 60954

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 61008

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	<50.5	U	996	1133		mg/Kg		110	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	<50.5	U F1	996	1364	F1	mg/Kg		135	70 - 130	10	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	141	S1+	70 - 130
o-Terphenyl	106		70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-60493/1-A

Matrix: Solid

Analysis Batch: 60618

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			08/19/23 01:12	1

Lab Sample ID: LCS 880-60493/2-A

Matrix: Solid

Analysis Batch: 60618

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.8		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-60493/3-A

Matrix: Solid

Analysis Batch: 60618

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	260.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-32215-A-1-B MS

Matrix: Solid

Analysis Batch: 60618

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	141		252	378.3		mg/Kg		94	90 - 110

Lab Sample ID: 880-32215-A-1-C MSD

Matrix: Solid

Analysis Batch: 60618

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	141		252	378.1		mg/Kg		94	90 - 110	0	20

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## QC Association Summary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

## GC VOA

## Analysis Batch: 60963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5103-1	FS32A	Total/NA	Solid	8021B	60970
MB 880-60970/5-A	Method Blank	Total/NA	Solid	8021B	60970
LCS 880-60970/1-A	Lab Control Sample	Total/NA	Solid	8021B	60970
LCSD 880-60970/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60970
880-32411-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	60970
880-32411-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	60970

## Prep Batch: 60970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5103-1	FS32A	Total/NA	Solid	5035	
MB 880-60970/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60970/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60970/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-32411-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-32411-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 61080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5103-1	FS32A	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 60954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5103-1	FS32A	Total/NA	Solid	8015B NM	61008
MB 880-61008/1-A	Method Blank	Total/NA	Solid	8015B NM	61008
LCS 880-61008/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	61008
LCSD 880-61008/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	61008
880-32232-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	61008
880-32232-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	61008

## Prep Batch: 61008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5103-1	FS32A	Total/NA	Solid	8015NM Prep	
MB 880-61008/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-61008/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-61008/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-32232-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-32232-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 61141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5103-1	FS32A	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 60493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5103-1	FS32A	Soluble	Solid	DI Leach	
MB 880-60493/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60493/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60493/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

HPLC/IC (Continued)

Leach Batch: 60493 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32215-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-32215-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 60618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5103-1	FS32A	Soluble	Solid	300.0	60493
MB 880-60493/1-A	Method Blank	Soluble	Solid	300.0	60493
LCS 880-60493/2-A	Lab Control Sample	Soluble	Solid	300.0	60493
LCSD 880-60493/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60493
880-32215-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	60493
880-32215-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	60493

Lab Chronicle

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

Client Sample ID: FS32A

Lab Sample ID: 890-5103-1

Date Collected: 08/14/23 10:30

Matrix: Solid

Date Received: 08/15/23 15:02

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	60970	08/24/23 09:32	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60963	08/24/23 20:39	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			61080	08/25/23 09:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			61141	08/25/23 11:47	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	61008	08/24/23 11:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60954	08/25/23 04:40	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	60493	08/17/23 15:13	SMC	EET MID
Soluble	Analysis	300.0		10			60618	08/19/23 02:38	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

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	T104704400-23-26	06-30-24

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: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5103-1  
SDG: 03C1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5103-1	FS32A	Solid	08/14/23 10:30	08/15/23 15:02	1.5

- 1
- 2
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## 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: \_\_\_\_\_

Page 1 of 1

Project Manager:	Ben Brill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	3104 E. Greene St
Address:	3122 National Parks Hwy	Address:	Carlsbad, NM 88220
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	XTO Energy
Phone:	989-834-0832	Email:	Garrett.Greene@xomobil.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: _____	

[illegible][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 <sub>2</sub> Na Sr Tl Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed	TCCLP / SPLP 6010 : 8RCRA 5b As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	Hg: 1631/245.1/7470/7471

Notwithstanding to whomsoever the sample is delivered, the responsibility for the fulfillment of the sample order shall remain with Eurofins Xeno. Eurofins Xeno 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 Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated in writing.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>M. O'Brien</i>	<i>Joe Alf</i>	8-15-23 1500			
2					
3					
4					
5					

Revised Date: 08/25/2020 Rev. 2007.2



## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5103-1

SDG Number: 03C1558117

Login Number: 5103

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

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5103-1

SDG Number: 03C1558117

Login Number: 5103

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 08/17/23 10:52 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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Ben Belill

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 8/25/2023 11:54:00 AM

## JOB DESCRIPTION

Nash Unit36

SDG NUMBER 03C1558117

## JOB NUMBER

890-5104-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
8/25/2023 11:54:00 AM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Nash Unit36

Laboratory Job ID: 890-5104-1  
SDG: 03C1558117

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Definitions/Glossary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

**Job ID: 890-5104-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-5104-1****Receipt**

The samples were received on 8/15/2023 3:02 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 4.0°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: FS29C (890-5104-1) and SW01 (890-5104-2).

**GC VOA**

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-60963 recovered below the lower control limit for Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-60963/20).

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 surrogate recovery for the blank associated with preparation batch 880-61009 and analytical batch 880-60956 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60956/31) and (CCV 880-60956/47). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The continuing calibration verification (CCV) associated with batch 880-60956 recovered above the upper control limit for Diesel Range Organics (Over C10-C28). An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-60956/47).

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: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

Client Sample ID: FS29C

Lab Sample ID: 890-5104-1

Date Collected: 08/14/23 09:30

Matrix: Solid

Date Received: 08/15/23 15:02

Sample Depth: 3

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/24/23 09:32	08/24/23 20:59	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/24/23 09:32	08/24/23 20:59	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/24/23 09:32	08/24/23 20:59	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		08/24/23 09:32	08/24/23 20:59	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/24/23 09:32	08/24/23 20:59	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		08/24/23 09:32	08/24/23 20:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	08/24/23 09:32	08/24/23 20:59	1
1,4-Difluorobenzene (Surr)	89		70 - 130	08/24/23 09:32	08/24/23 20:59	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			08/25/23 09:19	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/25/23 11:26	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/24/23 12:53	08/24/23 22:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/23 12:53	08/24/23 22:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/23 12:53	08/24/23 22:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	08/24/23 12:53	08/24/23 22:39	1
o-Terphenyl	128		70 - 130	08/24/23 12:53	08/24/23 22:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2810		49.8	mg/Kg			08/19/23 02:45	10

Client Sample ID: SW01

Lab Sample ID: 890-5104-2

Date Collected: 08/14/23 10:45

Matrix: Solid

Date Received: 08/15/23 15:02

Sample Depth: 0 - 3

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/24/23 09:32	08/24/23 21:19	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/24/23 09:32	08/24/23 21:19	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/24/23 09:32	08/24/23 21:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/24/23 09:32	08/24/23 21:19	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/24/23 09:32	08/24/23 21:19	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/24/23 09:32	08/24/23 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	08/24/23 09:32	08/24/23 21:19	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

Client Sample ID: SW01

Lab Sample ID: 890-5104-2

Date Collected: 08/14/23 10:45

Matrix: Solid

Date Received: 08/15/23 15:02

Sample Depth: 0 - 3

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	08/24/23 09:32	08/24/23 21:19	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/25/23 09:19	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			08/25/23 11:26	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		08/24/23 12:53	08/24/23 23:00	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		08/24/23 12:53	08/24/23 23:00	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		08/24/23 12:53	08/24/23 23:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	08/24/23 12:53	08/24/23 23:00	1
o-Terphenyl	110		70 - 130	08/24/23 12:53	08/24/23 23:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2390		24.8	mg/Kg			08/19/23 02:52	5

## Surrogate Summary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

## 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)
880-32411-A-1-B MS	Matrix Spike	89	93
880-32411-A-1-C MSD	Matrix Spike Duplicate	79	96
890-5104-1	FS29C	91	89
890-5104-2	SW01	92	95
LCS 880-60970/1-A	Lab Control Sample	74	88
LCSD 880-60970/2-A	Lab Control Sample Dup	92	89
MB 880-60970/5-A	Method Blank	95	112
<b>Surrogate Legend</b>			
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)
890-5084-A-1-D MS	Matrix Spike	108	98
890-5084-A-1-E MSD	Matrix Spike Duplicate	103	98
890-5104-1	FS29C	121	128
890-5104-2	SW01	105	110
LCS 880-61009/2-A	Lab Control Sample	97	105
LCSD 880-61009/3-A	Lab Control Sample Dup	103	117
MB 880-61009/1-A	Method Blank	153 S1+	167 S1+
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

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

Lab Sample ID: MB 880-60970/5-A

Matrix: Solid

Analysis Batch: 60963

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60970

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/23 09:32	08/24/23 13:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/23 09:32	08/24/23 13:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/23 09:32	08/24/23 13:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/24/23 09:32	08/24/23 13:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/23 09:32	08/24/23 13:28	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/24/23 09:32	08/24/23 13:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	08/24/23 09:32	08/24/23 13:28	1
1,4-Difluorobenzene (Surr)	112		70 - 130	08/24/23 09:32	08/24/23 13:28	1

Lab Sample ID: LCS 880-60970/1-A

Matrix: Solid

Analysis Batch: 60963

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60970

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08894		mg/Kg		89	70 - 130
Toluene	0.100	0.09456		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.07908		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	0.200	0.1497		mg/Kg		75	70 - 130
o-Xylene	0.100	0.07027		mg/Kg		70	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	74		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: LCSD 880-60970/2-A

Matrix: Solid

Analysis Batch: 60963

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 60970

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1011		mg/Kg		101	70 - 130	13	35
Toluene	0.100	0.1041		mg/Kg		104	70 - 130	10	35
Ethylbenzene	0.100	0.09884		mg/Kg		99	70 - 130	22	35
m-Xylene & p-Xylene	0.200	0.2018		mg/Kg		101	70 - 130	30	35
o-Xylene	0.100	0.09357		mg/Kg		94	70 - 130	28	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 880-32411-A-1-B MS

Matrix: Solid

Analysis Batch: 60963

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 60970

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0996	0.09051		mg/Kg		91	70 - 130
Toluene	<0.00199	U	0.0996	0.09517		mg/Kg		95	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

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

Lab Sample ID: 880-32411-A-1-B MS  
Matrix: Solid  
Analysis Batch: 60963

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 60970

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0996	0.08335		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1593		mg/Kg		80	70 - 130
o-Xylene	<0.00199	U	0.0996	0.07229		mg/Kg		72	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	89		70 - 130						
1,4-Difluorobenzene (Surr)	93		70 - 130						

Lab Sample ID: 880-32411-A-1-C MSD  
Matrix: Solid  
Analysis Batch: 60963

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 60970

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09915		mg/Kg		99	70 - 130	9	35
Toluene	<0.00199	U	0.100	0.09538		mg/Kg		94	70 - 130	0	35
Ethylbenzene	<0.00199	U	0.100	0.07873		mg/Kg		79	70 - 130	6	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1546		mg/Kg		77	70 - 130	3	35
o-Xylene	<0.00199	U	0.100	0.07085		mg/Kg		70	70 - 130	2	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	79		70 - 130								
1,4-Difluorobenzene (Surr)	96		70 - 130								

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

Lab Sample ID: MB 880-61009/1-A  
Matrix: Solid  
Analysis Batch: 60956

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 61009

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/24/23 12:51	08/24/23 19:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/23 12:51	08/24/23 19:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/23 12:51	08/24/23 19:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	153	S1+	70 - 130	08/24/23 12:51	08/24/23 19:47	1		
o-Terphenyl	167	S1+	70 - 130	08/24/23 12:51	08/24/23 19:47	1		

Lab Sample ID: LCS 880-61009/2-A  
Matrix: Solid  
Analysis Batch: 60956

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 61009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	924.4		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	1000	850.1		mg/Kg		85	70 - 130

Eurofins Carlsbad

## QC Sample Results

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

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

Lab Sample ID: LCS 880-61009/2-A  
Matrix: Solid  
Analysis Batch: 60956

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 61009

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: LCSD 880-61009/3-A  
Matrix: Solid  
Analysis Batch: 60956

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 61009

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	969.2		mg/Kg		97	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	861.8		mg/Kg		86	70 - 130	1	20
Surrogate		LCSD %Recovery	LCSD Qualifier	Limits					
1-Chlorooctane		103		70 - 130					
o-Terphenyl		117		70 - 130					

Lab Sample ID: 890-5084-A-1-D MS  
Matrix: Solid  
Analysis Batch: 60956

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 61009

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	1010	1303		mg/Kg		127	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1010	978.3		mg/Kg		95	70 - 130		
Surrogate		MS %Recovery	MS Qualifier	Limits							
1-Chlorooctane		108		70 - 130							
o-Terphenyl		98		70 - 130							

Lab Sample ID: 890-5084-A-1-E MSD  
Matrix: Solid  
Analysis Batch: 60956

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 61009

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	1010	1245		mg/Kg		121	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<50.0	U	1010	959.7		mg/Kg		93	70 - 130	2	20
Surrogate		MSD %Recovery	MSD Qualifier	Limits							
1-Chlorooctane		103		70 - 130							
o-Terphenyl		98		70 - 130							

Eurofins Carlsbad

## QC Sample Results

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-60493/1-A

Matrix: Solid

Analysis Batch: 60618

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			08/19/23 01:12	1

Lab Sample ID: LCS 880-60493/2-A

Matrix: Solid

Analysis Batch: 60618

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.8		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-60493/3-A

Matrix: Solid

Analysis Batch: 60618

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	260.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-32215-A-1-B MS

Matrix: Solid

Analysis Batch: 60618

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	141		252	378.3		mg/Kg		94	90 - 110

Lab Sample ID: 880-32215-A-1-C MSD

Matrix: Solid

Analysis Batch: 60618

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	141		252	378.1		mg/Kg		94	90 - 110	0	20

Eurofins Carlsbad



## QC Association Summary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

## GC VOA

## Analysis Batch: 60963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5104-1	FS29C	Total/NA	Solid	8021B	60970
890-5104-2	SW01	Total/NA	Solid	8021B	60970
MB 880-60970/5-A	Method Blank	Total/NA	Solid	8021B	60970
LCS 880-60970/1-A	Lab Control Sample	Total/NA	Solid	8021B	60970
LCSD 880-60970/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60970
880-32411-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	60970
880-32411-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	60970

## Prep Batch: 60970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5104-1	FS29C	Total/NA	Solid	5035	
890-5104-2	SW01	Total/NA	Solid	5035	
MB 880-60970/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60970/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60970/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-32411-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-32411-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 61081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5104-1	FS29C	Total/NA	Solid	Total BTEX	
890-5104-2	SW01	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 60956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5104-1	FS29C	Total/NA	Solid	8015B NM	61009
890-5104-2	SW01	Total/NA	Solid	8015B NM	61009
MB 880-61009/1-A	Method Blank	Total/NA	Solid	8015B NM	61009
LCS 880-61009/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	61009
LCSD 880-61009/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	61009
890-5084-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	61009
890-5084-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	61009

## Prep Batch: 61009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5104-1	FS29C	Total/NA	Solid	8015NM Prep	
890-5104-2	SW01	Total/NA	Solid	8015NM Prep	
MB 880-61009/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-61009/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-61009/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5084-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-5084-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 61130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5104-1	FS29C	Total/NA	Solid	8015 NM	
890-5104-2	SW01	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

HPLC/IC

Leach Batch: 60493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5104-1	FS29C	Soluble	Solid	DI Leach	
890-5104-2	SW01	Soluble	Solid	DI Leach	
MB 880-60493/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60493/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60493/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-32215-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-32215-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 60618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5104-1	FS29C	Soluble	Solid	300.0	60493
890-5104-2	SW01	Soluble	Solid	300.0	60493
MB 880-60493/1-A	Method Blank	Soluble	Solid	300.0	60493
LCS 880-60493/2-A	Lab Control Sample	Soluble	Solid	300.0	60493
LCSD 880-60493/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60493
880-32215-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	60493
880-32215-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	60493

Lab Chronicle

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

Client Sample ID: FS29C  
Date Collected: 08/14/23 09:30  
Date Received: 08/15/23 15:02

Lab Sample ID: 890-5104-1  
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			4.96 g	5 mL	60970	08/24/23 09:32	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60963	08/24/23 20:59	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			61081	08/25/23 09:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			61130	08/25/23 11:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	61009	08/24/23 12:53	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60956	08/24/23 22:39	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	60493	08/17/23 15:13	SMC	EET MID
Soluble	Analysis	300.0		10			60618	08/19/23 02:45	CH	EET MID

Client Sample ID: SW01  
Date Collected: 08/14/23 10:45  
Date Received: 08/15/23 15:02

Lab Sample ID: 890-5104-2  
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			5.03 g	5 mL	60970	08/24/23 09:32	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60963	08/24/23 21:19	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			61081	08/25/23 09:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			61130	08/25/23 11:26	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	61009	08/24/23 12:53	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60956	08/24/23 23:00	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	60493	08/17/23 15:13	SMC	EET MID
Soluble	Analysis	300.0		5			60618	08/19/23 02:52	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

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	T104704400-23-26	06-30-24

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: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum  
Project/Site: Nash Unit36

Job ID: 890-5104-1  
SDG: 03C1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5104-1	FS29C	Solid	08/14/23 09:30	08/15/23 15:02	3
890-5104-2	SW01	Solid	08/14/23 10:45	08/15/23 15:02	0 - 3

- 1
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Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
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:	Ben Beill	Bill to: (if different)	Garrett Green
Company Name:	ENSOLUM, LLC	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989-854-0852	Email:	Garrett.Green@xtonmobi.com

Program: <input type="checkbox"/> 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:	Nash Unit 30	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pes. Code	
Project Number:	03C1558117	Due Date:	5 days		
Project Location:	32.31051, -103.94113	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Mariana O'Dell				
PO #:					
<b>SAMPLE RECEIPT</b>					
Samples Received Intact:	Yes <input checked="" type="radio"/> No <input type="radio"/>	Temp Blank: <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/>	Wet/ice: <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/>	Parameters	
Cooler Custody Seals:	Yes <input type="radio"/> No <input checked="" type="radio"/> N/A	Thermometer ID:	NM-057		
Sample Custody Seals:	Yes <input type="radio"/> No <input checked="" type="radio"/> N/A	Correction Factor:	-0.2		
Total Containers:		Temperature Reading:	4.2		
		Corrected Temperature:	4.0		



Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Chlorides	TPH	BTEX	Sample Comments
ES29C	S	8/14/23	9:30	3'	C	1	X	X	X	Incident #:
SM01	S	10:45	0:30	C	1	1	X	X	X	NAPP 2224230187
										Cost Center:
										1131151001
										API: 30-015-301716
										Ben Beill:
										bbeill@ensolum.com
										Mariana O'Dell:
										modell@ensolum.com

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 <sub>2</sub> 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 M. O'Dell	Ben Beill	8-15-23 1500			
3					
5					



## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5104-1

SDG Number: 03C1558117

Login Number: 5104

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

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5104-1

SDG Number: 03C1558117

Login Number: 5104

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 08/17/23 10:52 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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 12/7/2022 4:28:00 PM

## JOB DESCRIPTION

Nash 36  
SDG NUMBER 03E1558117

## JOB NUMBER

880-22178-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

**Eurofins Midland****Job Notes**

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

**Authorization**

Generated  
12/7/2022 4:28:00 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Nash 36

Laboratory Job ID: 880-22178-1  
SDG: 03E1558117

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22178-1  
SDG: 03E1558117

## Qualifiers

## 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: Nash 36

Job ID: 880-22178-1  
SDG: 03E1558117

Job ID: 880-22178-1

Laboratory: Eurofins Midland

Narrative	Job Narrative 880-22178-1
-----------	------------------------------

Receipt

The samples were received on 12/1/2022 11:17 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-40957 and analytical batch 880-41087 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22178-1  
SDG: 03E1558117

Client Sample ID: PH01  
Date Collected: 11/18/22 10:00  
Date Received: 12/01/22 11:17  
Sample Depth: 1'

Lab Sample ID: 880-22178-1  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	476	F1	5.01	mg/Kg			12/07/22 12:48	1

Client Sample ID: PH01A  
Date Collected: 11/18/22 10:05  
Date Received: 12/01/22 11:17  
Sample Depth: 2'

Lab Sample ID: 880-22178-2  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1240		49.6	mg/Kg			12/07/22 13:12	10

## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22178-1  
SDG: 03E1558117

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40957/1-A

Matrix: Solid

Analysis Batch: 41087

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/07/22 12:24	1

Lab Sample ID: LCS 880-40957/2-A

Matrix: Solid

Analysis Batch: 41087

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	243.8		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-40957/3-A

Matrix: Solid

Analysis Batch: 41087

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	263.6		mg/Kg		105	90 - 110	8	20

Lab Sample ID: 880-22178-1 MS

Matrix: Solid

Analysis Batch: 41087

Client Sample ID: PH01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	476	F1	251	682.9	F1	mg/Kg		82	90 - 110

Lab Sample ID: 880-22178-1 MSD

Matrix: Solid

Analysis Batch: 41087

Client Sample ID: PH01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	476	F1	251	708.5		mg/Kg		93	90 - 110	4	20

## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22178-1  
SDG: 03E1558117

## HPLC/IC

## Leach Batch: 40957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22178-1	PH01	Soluble	Solid	DI Leach	
880-22178-2	PH01A	Soluble	Solid	DI Leach	
MB 880-40957/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-22178-1 MS	PH01	Soluble	Solid	DI Leach	
880-22178-1 MSD	PH01	Soluble	Solid	DI Leach	

## Analysis Batch: 41087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22178-1	PH01	Soluble	Solid	300.0	40957
880-22178-2	PH01A	Soluble	Solid	300.0	40957
MB 880-40957/1-A	Method Blank	Soluble	Solid	300.0	40957
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	300.0	40957
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40957
880-22178-1 MS	PH01	Soluble	Solid	300.0	40957
880-22178-1 MSD	PH01	Soluble	Solid	300.0	40957

Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22178-1  
SDG: 03E1558117

Client Sample ID: PH01  
Date Collected: 11/18/22 10:00  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22178-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		1	41087	CH	EET MID	12/07/22 12:48

Client Sample ID: PH01A  
Date Collected: 11/18/22 10:05  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22178-2  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		10	41087	CH	EET MID	12/07/22 13:12

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22178-1  
SDG: 03E1558117

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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Method Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22178-1  
SDG: 03E1558117

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

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

Laboratory References:

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

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Sample Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22178-1  
SDG: 03E1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-22178-1	PH01	Solid	11/18/22 10:00	12/01/22 11:17	1'
880-22178-2	PH01A	Solid	11/18/22 10:05	12/01/22 11:17	2'

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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

**Work Order No:**

22178

www.xenco.com Page 1 of 1

Project Manager	Kater Jennings	Bill to (if different)	Garrett Green
Company Name	Ensolium	Company Name	XTO Energy
Address	3122 National Parks Hwy	Address	3104 E Green St.
City, State ZIP	Carlsbad NM 88220	City, State ZIP	Carlsbad NM 88220
Phone	303-887-2946	Email	Garrett.Green@ExxonMobil.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	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"/>

Turn Around									
Project Name	Nash 36	Pres.							
Project Number	03E1558117	Routine	<input checked="" type="checkbox"/>	Rush	<input type="checkbox"/>				
Project Location		Due Date							
Sampler's Name	Connor Whitman	TAT starts the day received by the lab if received by 4:30pm							
PO #:									
<b>SAMPLE RECEIPT</b>		Temp Blank	Yes No	Wet los	( <input checked="" type="radio"/> Yes) <input type="radio"/> No				
Samples Received Intact	Yes No	Thermometer ID	T-NM-007						
Cooler Custody Seals	Yes No N/A	Correction Factor							
Sample Custody Seals	Yes No N/A	Temperature Reading	3.2						
Total Containers		Corrected Temperature							
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Glab/ Comp	# of Cont	Parameters	ANALYSIS REQUEST	Preservative Codes
PH01	S	11/18/2022	10 00	1'	Glab/	1	X CHLORIDES (EPA 300 0)		None NO DI Water H <sub>2</sub> O
PH01A	S	11/18/2022	10 05	2'	Glab/	1	X TPH (8015)  X BTEX (8021)		Cool Cool MeOH Me HCL HC HNO <sub>3</sub> HN H <sub>2</sub> SO <sub>4</sub> H <sub>2</sub> NaOH Na H <sub>3</sub> PO <sub>4</sub> HP NaHSO <sub>4</sub> NABIS Na <sub>2</sub> SiO <sub>3</sub> NaSCN Zn Acetate+NaOH Zn NaOH+Ascorbic Acid SASC
							Incident ID		
							mAP224238187		
							Cost Center		
							1137151001		
							A/E		

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 <sub>2</sub> Na Sr Ti Sn U V Zn
TCPLP / 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

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>[Signature]</i>	<i>[Signature]</i>	12-1-22 11:17	2		
3			4		
5			6		

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-22178-1

SDG Number: 03E1558117

Login Number: 22178

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Midland

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.	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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 12/7/2022 4:28:01 PM

## JOB DESCRIPTION

Nash 36

SDG NUMBER 03E15581147

## JOB NUMBER

880-22179-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

# Eurofins Midland

## Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
12/7/2022 4:28:01 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Nash 36

Laboratory Job ID: 880-22179-1  
SDG: 03E15581147

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22179-1  
SDG: 03E15581147

## Qualifiers

## 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: Nash 36

Job ID: 880-22179-1  
SDG: 03E15581147

Job ID: 880-22179-1

Laboratory: Eurofins Midland

Narrative	Job Narrative 880-22179-1
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Receipt

The samples were received on 12/1/2022 11:17 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-40957 and 880-40957 and analytical batch 880-41087 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22179-1  
SDG: 03E15581147

## Client Sample ID: PH02

Lab Sample ID: 880-22179-1

Date Collected: 11/18/22 10:10

Matrix: Solid

Date Received: 12/01/22 11:17

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4430		49.5	mg/Kg			12/07/22 13:21	10

## Client Sample ID: PH02A

Lab Sample ID: 880-22179-2

Date Collected: 11/18/22 10:15

Matrix: Solid

Date Received: 12/01/22 11:17

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3050		50.2	mg/Kg			12/07/22 13:29	10

## Client Sample ID: PH02B

Lab Sample ID: 880-22179-3

Date Collected: 11/18/22 10:20

Matrix: Solid

Date Received: 12/01/22 11:17

Sample Depth: 3'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6460		99.2	mg/Kg			12/07/22 13:37	20

## Client Sample ID: PH02C

Lab Sample ID: 880-22179-4

Date Collected: 11/18/22 10:25

Matrix: Solid

Date Received: 12/01/22 11:17

Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4860		101	mg/Kg			12/07/22 14:01	20



QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22179-1  
SDG: 03E15581147

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40957/1-A					Client Sample ID: Method Blank				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.00	U	5.00	mg/Kg			12/07/22 12:24	1	

Lab Sample ID: LCS 880-40957/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	243.8		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-40957/3-A					Client Sample ID: Lab Control Sample Dup				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	263.6		mg/Kg		105	90 - 110	8	20

## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22179-1  
SDG: 03E15581147

## HPLC/IC

## Leach Batch: 40957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22179-1	PH02	Soluble	Solid	DI Leach	
880-22179-2	PH02A	Soluble	Solid	DI Leach	
880-22179-3	PH02B	Soluble	Solid	DI Leach	
880-22179-4	PH02C	Soluble	Solid	DI Leach	
MB 880-40957/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Analysis Batch: 41087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22179-1	PH02	Soluble	Solid	300.0	40957
880-22179-2	PH02A	Soluble	Solid	300.0	40957
880-22179-3	PH02B	Soluble	Solid	300.0	40957
880-22179-4	PH02C	Soluble	Solid	300.0	40957
MB 880-40957/1-A	Method Blank	Soluble	Solid	300.0	40957
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	300.0	40957
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40957

Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22179-1  
SDG: 03E15581147

Client Sample ID: PH02  
Date Collected: 11/18/22 10:10  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22179-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		10	41087	CH	EET MID	12/07/22 13:21

Client Sample ID: PH02A  
Date Collected: 11/18/22 10:15  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22179-2  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		10	41087	CH	EET MID	12/07/22 13:29

Client Sample ID: PH02B  
Date Collected: 11/18/22 10:20  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22179-3  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		20	41087	CH	EET MID	12/07/22 13:37

Client Sample ID: PH02C  
Date Collected: 11/18/22 10:25  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22179-4  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		20	41087	CH	EET MID	12/07/22 14:01

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22179-1  
SDG: 03E15581147

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

- 1
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Method Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22179-1  
SDG: 03E15581147

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

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

Laboratory References:

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

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Sample Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22179-1  
SDG: 03E15581147

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-22179-1	PH02	Solid	11/18/22 10:10	12/01/22 11:17	1'
880-22179-2	PH02A	Solid	11/18/22 10:15	12/01/22 11:17	2'
880-22179-3	PH02B	Solid	11/18/22 10:20	12/01/22 11:17	3'
880-22179-4	PH02C	Solid	11/18/22 10:25	12/01/22 11:17	4'

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Houston TX (281) 240-4200 Dallas TX (214) 902-0300  
Midland TX (432) 704-5440 San Antonio TX (210) 508-3333  
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:**

22179

www.xenco.com Page 1 of 1

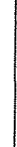

Project Manager	Katei Jennings	Bill to (if different)	Garrett Green
Company Name	Ensolium	Company Name	XTO Energy
Address	3122 National Parks Hwy	Address	3104 E Green St
City, State ZIP	Carlsbad, NM 88220	City, State ZIP	Carlsbad NM 88220
Phone	303-887-2946	Email	Garrett.Green@ExxonMobil.com

Work Order Comments	
Program State of Project	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
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"/>

ANALYSIS REQUEST						
Preservative Codes						
Project Name	Nash 36	Turn Around	Pes.			
Project Number	03E1558117	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Code			
Project Location.		Due Date				
Sampler's Name	Connor Whitman	TAT starts the day received by the lab if received by 4 30pm				Cool Cool MeOH Me HCL HC HNO <sub>3</sub> HN H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> NaOH Na
PO #:						H <sub>3</sub> PO <sub>4</sub> , HP NaHSO <sub>4</sub> , NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> NaSO <sub>3</sub> Zn Acetate+NaOH Zn NaOH+A-scorbic Acid SAPC
SAMPLE RECEIPT			Temp Blank.	Yes No	Thermometer ID	Wet Ice Yes NO
Samples Received Intact:	Yes No				L-Nm. 007	
Cooler Custody Seals	Yes No N/A				Correction Factor	
Sample Custody Seals.	Yes No N/A				Temperature Reading	3.2
Total Containers.					Corrected Temperature	
Parameters						
DES (EPA 300 O)						
(15)						
(2021)						

[illegible]

880-22179 Chain of Custody

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 <sub>2</sub> Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed				TCPLP / 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		
1 		12/1/22 11:17	2				
3			4				
5			6				

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-22179-1

SDG Number: 03E15581147

Login Number: 22179

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Midland

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.	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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 12/7/2022 4:28:34 PM

## JOB DESCRIPTION

Nash 36  
SDG NUMBER 03E1558117

## JOB NUMBER

880-22181-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

**Eurofins Midland****Job Notes**

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

**Authorization**

Generated  
12/7/2022 4:28:34 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Nash 36

Laboratory Job ID: 880-22181-1  
SDG: 03E1558117

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Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22181-1  
SDG: 03E1558117

Qualifiers

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: Nash 36

Job ID: 880-22181-1  
SDG: 03E1558117

Job ID: 880-22181-1

Laboratory: Eurofins Midland

Narrative	
	Job Narrative 880-22181-1

Receipt

The sample was received on 12/1/2022 11:17 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice.

HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-40957 and analytical batch 880-41087 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22181-1  
SDG: 03E1558117

Client Sample ID: PH04  
Date Collected: 11/18/22 13:00  
Date Received: 12/01/22 11:17  
Sample Depth: 1

Lab Sample ID: 880-22181-1  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	14600		251	mg/Kg			12/07/22 14:09	50	

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QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22181-1  
SDG: 03E1558117

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40957/1-A					Client Sample ID: Method Blank				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.00	U	5.00	mg/Kg			12/07/22 12:24	1	

Lab Sample ID: LCS 880-40957/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	243.8		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-40957/3-A					Client Sample ID: Lab Control Sample Dup				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	263.6		mg/Kg		105	90 - 110	8	20

QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22181-1  
SDG: 03E1558117

HPLC/IC

Leach Batch: 40957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22181-1	PH04	Soluble	Solid	DI Leach	
MB 880-40957/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 41087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22181-1	PH04	Soluble	Solid	300.0	40957
MB 880-40957/1-A	Method Blank	Soluble	Solid	300.0	40957
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	300.0	40957
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40957



Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22181-1  
SDG: 03E1558117

Client Sample ID: PH04  
Date Collected: 11/18/22 13:00  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22181-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		50	41087	CH	EET MID	12/07/22 14:09

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

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Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22181-1  
SDG: 03E1558117

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

- 1
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Method Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22181-1  
SDG: 03E1558117

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

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

Laboratory References:

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

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Sample Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22181-1  
SDG: 03E1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-22181-1	PH04	Solid	11/18/22 13:00	12/01/22 11:17	1

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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

Work Order No: 200

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Project Manager	Kalei Jennings	Bill to: (if different)	Garrett Green
Company Name	Enrsolum	Company Name:	XTO Energy
Address	3122 National Parks Hwy	Address	3104 E Green St
City, State ZIP	Carlsbad, NM 88220	City, State ZIP	Carlsbad NM 88220
Phone	303-887-2946	Email	Garrett.Green@ExxonMobil.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	

[illegible]

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-22181-1

SDG Number: 03E1558117

Login Number: 22181

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Midland

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.	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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 12/7/2022 4:28:47 PM

## JOB DESCRIPTION

Nash 36  
SDG NUMBER 03E1558117


## JOB NUMBER

880-22182-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

**Eurofins Midland****Job Notes**

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

**Authorization**

Generated  
12/7/2022 4:28:47 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440



Client: Ensolum  
Project/Site: Nash 36

Laboratory Job ID: 880-22182-1  
SDG: 03E1558117

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22182-1  
SDG: 03E1558117

## Qualifiers

## 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: Nash 36

Job ID: 880-22182-1  
SDG: 03E1558117

Job ID: 880-22182-1

Laboratory: Eurofins Midland

Narrative	
	Job Narrative 880-22182-1

Receipt

The samples were received on 12/1/2022 11:17 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-40957 and 880-40957 and analytical batch 880-41087 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22182-1  
SDG: 03E1558117

Client Sample ID: PH03  
Date Collected: 11/18/22 12:30  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22182-1  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7870		99.0	mg/Kg			12/07/22 14:17	20

Client Sample ID: PH03A  
Date Collected: 11/18/22 12:35  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22182-2  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7520		101	mg/Kg			12/07/22 14:25	20

Client Sample ID: PH03B  
Date Collected: 11/18/22 12:40  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22182-3  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4730		50.4	mg/Kg			12/07/22 14:34	10

QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22182-1  
SDG: 03E1558117

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40957/1-A					Client Sample ID: Method Blank				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.00	U	5.00	mg/Kg			12/07/22 12:24	1	

Lab Sample ID: LCS 880-40957/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	243.8		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-40957/3-A					Client Sample ID: Lab Control Sample Dup				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	263.6		mg/Kg		105	90 - 110	8	20

QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22182-1  
SDG: 03E1558117

HPLC/IC

Leach Batch: 40957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22182-1	PH03	Soluble	Solid	DI Leach	
880-22182-2	PH03A	Soluble	Solid	DI Leach	
880-22182-3	PH03B	Soluble	Solid	DI Leach	
MB 880-40957/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 41087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22182-1	PH03	Soluble	Solid	300.0	40957
880-22182-2	PH03A	Soluble	Solid	300.0	40957
880-22182-3	PH03B	Soluble	Solid	300.0	40957
MB 880-40957/1-A	Method Blank	Soluble	Solid	300.0	40957
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	300.0	40957
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40957

Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22182-1  
SDG: 03E1558117

Client Sample ID: PH03  
Date Collected: 11/18/22 12:30  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22182-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		20	41087	CH	EET MID	12/07/22 14:17

Client Sample ID: PH03A  
Date Collected: 11/18/22 12:35  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22182-2  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		20	41087	CH	EET MID	12/07/22 14:25

Client Sample ID: PH03B  
Date Collected: 11/18/22 12:40  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22182-3  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		10	41087	CH	EET MID	12/07/22 14:34

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22182-1  
SDG: 03E1558117

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

- 1
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Method Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22182-1  
SDG: 03E1558117

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

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

Laboratory References:

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

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Sample Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22182-1  
SDG: 03E1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-22182-1	PH03	Solid	11/18/22 12:30	12/01/22 11:17
880-22182-2	PH03A	Solid	11/18/22 12:35	12/01/22 11:17
880-22182-3	PH03B	Solid	11/18/22 12:40	12/01/22 11:17

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## Chain of Custody

Houston TX (261) 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.:**

COVE

www.xenco.com Page 1 of 1

Project Manager	Katei Jennings	Bill to (if different)	Garrett Green
Company Name	Ensolum	Company Name	XTO Energy
Address	3122 National Parks Hwy	Address	3104 E Green St.
City, State ZIP	Carlsbad, NM 88220	City, State ZIP	Carlsbad, NM 88220
Phone	303-887-2946	Email	Garrett.Green@ExxonMobil.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: _____

[illegible]

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-22182-1

SDG Number: 03E1558117

Login Number: 22182

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Midland

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.	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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 12/7/2022 4:28:47 PM

## JOB DESCRIPTION

Nash 36

SDG NUMBER 03E1558117

## JOB NUMBER

880-22184-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

# Eurofins Midland

## Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
12/7/2022 4:28:47 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Nash 36

Laboratory Job ID: 880-22184-1  
SDG: 03E1558117

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22184-1  
SDG: 03E1558117

## Qualifiers

## 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: Nash 36

Job ID: 880-22184-1  
SDG: 03E1558117

Job ID: 880-22184-1

Laboratory: Eurofins Midland

Narrative	
	Job Narrative 880-22184-1

Receipt

The samples were received on 12/1/2022 11:17 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-40957 and analytical batch 880-41087 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22184-1  
SDG: 03E1558117

Client Sample ID: PH06  
Date Collected: 11/18/22 13:55  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22184-1  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3440	F1	100	mg/Kg			12/07/22 14:42	20

Client Sample ID: PH06A  
Date Collected: 11/18/22 14:00  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22184-2  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4410		101	mg/Kg			12/07/22 15:06	20

Client Sample ID: PH06B  
Date Collected: 11/18/22 14:10  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22184-3  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4110		99.2	mg/Kg			12/07/22 15:14	20

## QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22184-1  
SDG: 03E1558117

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40957/1-A

Matrix: Solid

Analysis Batch: 41087

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/07/22 12:24	1

Lab Sample ID: LCS 880-40957/2-A

Matrix: Solid

Analysis Batch: 41087

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	243.8		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-40957/3-A

Matrix: Solid

Analysis Batch: 41087

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	263.6		mg/Kg		105	90 - 110	8	20

Lab Sample ID: 880-22184-1 MS

Matrix: Solid

Analysis Batch: 41087

Client Sample ID: PH06

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	3440	F1	5010	9937	F1	mg/Kg		130	90 - 110

Lab Sample ID: 880-22184-1 MSD

Matrix: Solid

Analysis Batch: 41087

Client Sample ID: PH06

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3440	F1	5010	10220	F1	mg/Kg		135	90 - 110	3	20

## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22184-1  
SDG: 03E1558117

## HPLC/IC

## Leach Batch: 40957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22184-1	PH06	Soluble	Solid	DI Leach	
880-22184-2	PH06A	Soluble	Solid	DI Leach	
880-22184-3	PH06B	Soluble	Solid	DI Leach	
MB 880-40957/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-22184-1 MS	PH06	Soluble	Solid	DI Leach	
880-22184-1 MSD	PH06	Soluble	Solid	DI Leach	

## Analysis Batch: 41087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22184-1	PH06	Soluble	Solid	300.0	40957
880-22184-2	PH06A	Soluble	Solid	300.0	40957
880-22184-3	PH06B	Soluble	Solid	300.0	40957
MB 880-40957/1-A	Method Blank	Soluble	Solid	300.0	40957
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	300.0	40957
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40957
880-22184-1 MS	PH06	Soluble	Solid	300.0	40957
880-22184-1 MSD	PH06	Soluble	Solid	300.0	40957

Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22184-1  
SDG: 03E1558117

Client Sample ID: PH06  
Date Collected: 11/18/22 13:55  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22184-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		20	41087	CH	EET MID	12/07/22 14:42

Client Sample ID: PH06A  
Date Collected: 11/18/22 14:00  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22184-2  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		20	41087	CH	EET MID	12/07/22 15:06

Client Sample ID: PH06B  
Date Collected: 11/18/22 14:10  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22184-3  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		20	41087	CH	EET MID	12/07/22 15:14

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22184-1  
SDG: 03E1558117

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

- 1
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Method Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22184-1  
SDG: 03E1558117

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

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

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

Sample Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22184-1  
SDG: 03E1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-22184-1	PH06	Solid	11/18/22 13:55	12/01/22 11:17
880-22184-2	PH06A	Solid	11/18/22 14:00	12/01/22 11:17
880-22184-3	PH06B	Solid	11/18/22 14:10	12/01/22 11:17

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Houston TX (281) 240-4200 Dallas TX (214) 902-0300  
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334  
El Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296  
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3189

## Chain of Custody

**Work Order No:**

22182

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Project Manager	Katei Jennings	Bill to: (if different)	Garrett Green
Company Name	Enscolum	Company Name	XTO Energy
Address	3122 National Parks Hwy	Address	3104 E. Green St.
City, State ZIP	Carlsbad, NM 88220	City, State ZIP	Carlsbad NM 88220
Phone:	303-887-2946	Email	Garrett.Green@ExxonMobil.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	Nash 36		Turn Around	
Project Number	03E1558117	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush	
Project Location		Due Date		
Sampler's Name:	Connor Whitman	TAT starts the day received by the lab if received by 4:30pm		
PO #				
<b>SAMPLE RECEIPT</b>	Temp Blank:	Yes	No	<input checked="" type="radio"/> Yes <input type="radio"/> No
	Samples Received Intact:	Yes	No	
	Cooler Custody Seals:	Yes	No	N/A
	Sample Custody Seals:	Yes	No	N/A
	Total Containers:			Corrected Temperature:

ANALYSIS REQUEST										Preservative Codes		
Press. Code												
	DES (EPA 300 0)										None NO	DI Water- H <sub>2</sub> O
	(15)										Cool Cool	MeOH Me
	(021)										HCL HC	HNO <sub>3</sub> HN
											H <sub>2</sub> SO <sub>4</sub> H <sub>2</sub>	NaOH Na
											H <sub>3</sub> PO <sub>4</sub> HP	
											NaHSO <sub>4</sub> NABIS	
											Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> NaSO <sub>3</sub>	
											Zn Acetate+NaOH Zn	
											NaOH+Ascorbic Acid SAPC	

[illegible]

880-22184 Chain of Custody

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 <sub>2</sub> 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 / 2451 / 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		
1 <i>Chhr</i>	<i>Car Seng</i>	12/1/22 11:17			2		
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## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-22184-1

SDG Number: 03E1558117

Login Number: 22184

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Midland

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.	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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 12/7/2022 4:29:24 PM

## JOB DESCRIPTION

Nash 36  
SDG NUMBER 03E1558117

## JOB NUMBER

880-22185-1


Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated  
12/7/2022 4:29:24 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Nash 36

Laboratory Job ID: 880-22185-1  
SDG: 03E1558117

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22185-1  
SDG: 03E1558117

## Qualifiers

## 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: Nash 36

Job ID: 880-22185-1  
SDG: 03E1558117

Job ID: 880-22185-1

Laboratory: Eurofins Midland

Narrative	
	Job Narrative 880-22185-1

Receipt

The samples were received on 12/1/2022 11:17 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-40957 and analytical batch 880-41087 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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## Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22185-1  
SDG: 03E1558117

Client Sample ID: PH05

Lab Sample ID: 880-22185-1

Date Collected: 11/18/22 13:25

Matrix: Solid

Date Received: 12/01/22 11:17

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10100		251	mg/Kg			12/07/22 15:39	50

Client Sample ID: PH05A

Lab Sample ID: 880-22185-2

Date Collected: 11/18/22 13:30

Matrix: Solid

Date Received: 12/01/22 11:17

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5160		99.4	mg/Kg			12/07/22 15:47	20

Client Sample ID: PH05B

Lab Sample ID: 880-22185-3

Date Collected: 11/18/22 13:35

Matrix: Solid

Date Received: 12/01/22 11:17

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7330		101	mg/Kg			12/07/22 15:55	20

Client Sample ID: PH05C

Lab Sample ID: 880-22185-4

Date Collected: 11/18/22 13:40

Matrix: Solid

Date Received: 12/01/22 11:17

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7650		99.2	mg/Kg			12/07/22 16:03	20



QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22185-1  
SDG: 03E1558117

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40957/1-A					Client Sample ID: Method Blank				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.00	U	5.00	mg/Kg			12/07/22 12:24	1	

Lab Sample ID: LCS 880-40957/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	243.8		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-40957/3-A					Client Sample ID: Lab Control Sample Dup				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	263.6		mg/Kg		105	90 - 110	8	20

## QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22185-1  
SDG: 03E1558117

## HPLC/IC

## Leach Batch: 40957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22185-1	PH05	Soluble	Solid	DI Leach	
880-22185-2	PH05A	Soluble	Solid	DI Leach	
880-22185-3	PH05B	Soluble	Solid	DI Leach	
880-22185-4	PH05C	Soluble	Solid	DI Leach	
MB 880-40957/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Analysis Batch: 41087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22185-1	PH05	Soluble	Solid	300.0	40957
880-22185-2	PH05A	Soluble	Solid	300.0	40957
880-22185-3	PH05B	Soluble	Solid	300.0	40957
880-22185-4	PH05C	Soluble	Solid	300.0	40957
MB 880-40957/1-A	Method Blank	Soluble	Solid	300.0	40957
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	300.0	40957
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40957

Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22185-1  
SDG: 03E1558117

Client Sample ID: PH05  
Date Collected: 11/18/22 13:25  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22185-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		50	41087	CH	EET MID	12/07/22 15:39

Client Sample ID: PH05A  
Date Collected: 11/18/22 13:30  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22185-2  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		20	41087	CH	EET MID	12/07/22 15:47

Client Sample ID: PH05B  
Date Collected: 11/18/22 13:35  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22185-3  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		20	41087	CH	EET MID	12/07/22 15:55

Client Sample ID: PH05C  
Date Collected: 11/18/22 13:40  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22185-4  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		20	41087	CH	EET MID	12/07/22 16:03

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22185-1  
SDG: 03E1558117

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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Method Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22185-1  
SDG: 03E1558117

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

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

Laboratory References:

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

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Sample Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22185-1  
SDG: 03E1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-22185-1	PH05	Solid	11/18/22 13:25	12/01/22 11:17
880-22185-2	PH05A	Solid	11/18/22 13:30	12/01/22 11:17
880-22185-3	PH05B	Solid	11/18/22 13:35	12/01/22 11:17
880-22185-4	PH05C	Solid	11/18/22 13:40	12/01/22 11:17

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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

**Work Order No:**

425

www.xenco.com Page 1 of 1

Project Manager	Kalei Jennings	Bill to (if different)	Garrett Green
Company Name	Ensolum	Company Name	XTO Energy
Address	3122 National Parks Hwy	Address	3104 E Green St.
City, State ZIP	Carlsbad, NM 88220	City, State ZIP	Carlsbad NM 88220
Phone	303-887-2946	Email	Garrett.Green@ExxonMobil.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 <input type="checkbox"/>

[illegible][illegible]

000-22185 Chain of Custody

<b>Total</b>	<b>200.7 / 6010</b>	<b>200.8 / 6020:</b>	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 <sub>2</sub>	Na	Sr	Ti	Sn	U	V	Zn
<b>Circle Method(s) and Metal(s) to be analyzed</b>			TCLP / SPLP	6010	8RCRA		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U		Hg	1631 / 245	1 / 7470	1 / 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 \$3 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>[Signature]</i>	<i>[Signature]</i>	12/1/22 11:17	2		
3			4		
5			6		

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-22185-1

SDG Number: 03E1558117

Login Number: 22185

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Midland

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.	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

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 12/7/2022 4:29:41 PM

## JOB DESCRIPTION

Nash 36  
SDG NUMBER 03E1558117


## JOB NUMBER

880-22187-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

**Eurofins Midland****Job Notes**

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

**Authorization**

Generated  
12/7/2022 4:29:41 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Nash 36

Laboratory Job ID: 880-22187-1  
SDG: 03E1558117

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22187-1  
SDG: 03E1558117

## Qualifiers

## 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: Nash 36

Job ID: 880-22187-1  
SDG: 03E1558117

Job ID: 880-22187-1

Laboratory: Eurofins Midland

Narrative	
	Job Narrative 880-22187-1

Receipt

The samples were received on 12/1/2022 11:17 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-40957 and 880-40957 and analytical batch 880-41087 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Client Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22187-1  
SDG: 03E1558117

Client Sample ID: FS49  
Date Collected: 11/18/22 11:05  
Date Received: 12/01/22 11:17  
Sample Depth: 0.5'

Lab Sample ID: 880-22187-1  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	426		4.96	mg/Kg			12/07/22 16:11	1

Client Sample ID: FS50  
Date Collected: 11/18/22 11:10  
Date Received: 12/01/22 11:17  
Sample Depth: 0.5'

Lab Sample ID: 880-22187-2  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1190		25.2	mg/Kg			12/07/22 16:20	5

Client Sample ID: FS51  
Date Collected: 11/18/22 11:15  
Date Received: 12/01/22 11:17  
Sample Depth: 0.5'

Lab Sample ID: 880-22187-3  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1210		24.9	mg/Kg			12/07/22 16:28	5

QC Sample Results

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22187-1  
SDG: 03E1558117

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40957/1-A					Client Sample ID: Method Blank				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.00	U	5.00	mg/Kg			12/07/22 12:24	1	

Lab Sample ID: LCS 880-40957/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	243.8		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-40957/3-A					Client Sample ID: Lab Control Sample Dup				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 41087									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	263.6		mg/Kg		105	90 - 110	8	20

QC Association Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22187-1  
SDG: 03E1558117

HPLC/IC

Leach Batch: 40957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22187-1	FS49	Soluble	Solid	DI Leach	
880-22187-2	FS50	Soluble	Solid	DI Leach	
880-22187-3	FS51	Soluble	Solid	DI Leach	
MB 880-40957/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 41087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22187-1	FS49	Soluble	Solid	300.0	40957
880-22187-2	FS50	Soluble	Solid	300.0	40957
880-22187-3	FS51	Soluble	Solid	300.0	40957
MB 880-40957/1-A	Method Blank	Soluble	Solid	300.0	40957
LCS 880-40957/2-A	Lab Control Sample	Soluble	Solid	300.0	40957
LCSD 880-40957/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40957



Lab Chronicle

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22187-1  
SDG: 03E1558117

Client Sample ID: FS49  
Date Collected: 11/18/22 11:05  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22187-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		1	41087	CH	EET MID	12/07/22 16:11

Client Sample ID: FS50  
Date Collected: 11/18/22 11:10  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22187-2  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		5	41087	CH	EET MID	12/07/22 16:20

Client Sample ID: FS51  
Date Collected: 11/18/22 11:15  
Date Received: 12/01/22 11:17

Lab Sample ID: 880-22187-3  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			40957	SMC	EET MID	12/03/22 13:46
Soluble	Analysis	300.0		5	41087	CH	EET MID	12/07/22 16:28

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22187-1  
SDG: 03E1558117

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

Method Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22187-1  
SDG: 03E1558117

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

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

Laboratory References:

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

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13

Sample Summary

Client: Ensolum  
Project/Site: Nash 36

Job ID: 880-22187-1  
SDG: 03E1558117

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-22187-1	FS49	Solid	11/18/22 11:05	12/01/22 11:17	0.5'
880-22187-2	FS50	Solid	11/18/22 11:10	12/01/22 11:17	0.5'
880-22187-3	FS51	Solid	11/18/22 11:15	12/01/22 11:17	0.5'

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



UHV Series B  
REV

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:

22187

www.xenco.com

Page 1 of 1

Project Manager	Kaler Jennings	Bill to (if different)	Garrett Green
Company Name	Ensolum	Company Name	XTO Energy
Address	3122 National Parks Hwy	Address	3104 E Green St.
City, State ZIP	Carlsbad NM 88220	City, State ZIP	Carlsbad NM 88220
Phone	303-887-2946	Email	Garrett.Green@ExxonMobil.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	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	Nash 36	Turn Around	Pres. Code	ANALYSIS REQUEST		Preservative Codes
Project Number	03E1558117	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush				None NO DI Water H <sub>2</sub> O
Project Location		Due Date				Cool Cool MeOH Me
Sampler's Name	Connor Whitman	TAT starts the day received by the lab if received by 4:30pm				HCL HC HNO <sub>3</sub> HN
PO #						H <sub>2</sub> SO <sub>4</sub> H <sub>2</sub> NaOH Na
SAMPLE RECEIPT		Temp Blank	Yes No	Wet Ice	Yes No	H <sub>3</sub> PO <sub>4</sub> HP
Samples Received Intact	Yes No	Thermometer ID	ENM-007			NaHSO <sub>4</sub> NABIS
Cooler Custody Seals	Yes No N/A	Correction Factor				Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> NaSO <sub>3</sub>
Sample Custody Seals	Yes No N/A	Temperature Reading	3.2			Zn Acetate+NaOH Zn
Total Containers		Corrected Temperature				NaOH+Ascorbic Acid SAPC
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont
FS49	S	11/18/2022	11 05	5'	comp	1
FS50	S	11/18/2022	11 10	5'	comp	1
FS51	S	11/18/2022	11 15	5'	comp	1
CHLORIDES (EPA 300.0)						
TPH (8015)						
BTEX (8021)						
Incident ID						
nAP224238167						
Cost Center						
1137151001						
AFE						



880-22187 Chain of Custody

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<sub>2</sub> 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>[Signature]</i>	2 <i>[Signature]</i>	12/1/22 11:17	3 <i>[Signature]</i>	4 <i>[Signature]</i>	
5			6		

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-22187-1

SDG Number: 03E1558117

Login Number: 22187

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Midland

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.	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 C

### NMOCD Correspondance

**From:** [Hamlet, Robert, EMNRD](#)  
**To:** [Collins, Melanie](#)  
**Cc:** [DelawareSpills /SM](#); [Green, Garrett J](#); [Kalei Jennings](#); [Tacoma Morrissey](#); [Bratcher, Michael, EMNRD](#); [Nobui, Jennifer, EMNRD](#); [Harimon, Jocelyn, EMNRD](#)  
**Subject:** (Extension Approval) - XTO - Nash Unit 36 (Incident Number NAPP2224236187)  
**Date:** Monday, November 14, 2022 4:48:57 PM  
**Attachments:** [image003.png](#)

---

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

RE: Incident #NAPP2224236187

**Melanie,**

Your request for an extension to **February 13th, 2023** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

**Robert Hamlet** • Environmental Specialist - Advanced  
Environmental Bureau  
EMNRD - Oil Conservation Division  
506 W. Texas Ave. | Artesia, NM 88210  
575.909.0302 | [robert.hamlet@state.nm.us](mailto:robert.hamlet@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>



---

**From:** Collins, Melanie <[melanie.collins@exxonmobil.com](mailto:melanie.collins@exxonmobil.com)>  
**Sent:** Monday, November 14, 2022 9:50 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>; Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>  
**Cc:** DelawareSpills /SM <[DelawareSpills@exxonmobil.com](mailto:DelawareSpills@exxonmobil.com)>; Green, Garrett J <[garrett.green@exxonmobil.com](mailto:garrett.green@exxonmobil.com)>; Kalei Jennings <[kjennings@ensolum.com](mailto:kjennings@ensolum.com)>; Tacoma Morrissey <[tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com)>  
**Subject:** [EXTERNAL] XTO- Extension Request- Nash Unit 36 (Incident Number NAPP2224236187)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

**Nash Unit 36 (Incident Number NAPP2224236187)**

XTO is requesting an extension for the current deadline of November 15, 2022 for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC at the Nash Unit 36



(Incident Number NAPP2224236187). The release occurred on August 17, 2022, and initial site assessment activities have been completed. Excavation activities were completed last week and are pending laboratory analytical results. Due to the salt lake located adjacent to and surrounding the Site, additional background information is needed to complete remediation activities. In order to review the laboratory analytical results, discuss remedial options, and submit a remediation work plan or closure report, XTO requests an extension until February 13, 2023.

Thank you,

*Melanie Collins*



Environmental Technician

[melanie.collins@exxonmobil.com](mailto:melanie.collins@exxonmobil.com)

432-556-3756

**From:** [Collins, Melanie](#)  
**To:** [ocd.enviro@state.nm.us](mailto:ocd.enviro@state.nm.us); [Hamlet, Robert, EMNRD \(Robert.Hamlet@emnrd.nm.gov\)](mailto:Robert.Hamlet@emnrd.nm.gov); [Harimon, Jocelyn, EMNRD \(Jocelyn.Harimon@emnrd.nm.gov\)](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
**Cc:** [Green, Garrett J](#); [DelawareSpills /SM](#); [Ben Beill](#)  
**Subject:** XTO - Sampling Notification (Week of 8/14/23 - 8/18/23)  
**Date:** Thursday, August 10, 2023 9:28:49 AM  
**Attachments:** [image001.png](#)

---

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

All,

XTO plans to complete final sampling activities at the sites listed below for the week of August 14, 2023.

Monday

- PLU BS 3-25-31 / nAB1731042349
- Nash 36 / nAPP2224236187

Tuesday

- Nash 36 / nAPP2224236187

Thank you,

*Melanie Collins*



Environmental Technician

[melanie.collins@exxonmobil.com](mailto:melanie.collins@exxonmobil.com)

432-556-3756

**From:** [Green, Garrett J](#)  
**To:** [ocd.enviro@emnrd.nm.gov](mailto:ocd.enviro@emnrd.nm.gov); [Bratcher, Michael, EMNRD](#); [Hamlet, Robert, EMNRD](#); [Billings, Bradford, EMNRD](#); [Harimon, Jocelyn, EMNRD](#)  
**Cc:** [DelawareSpills /SM](#); [Tacoma Morrissey](#)  
**Subject:** XTO - Sampling Notification (Week of 11/7/22 - 11/11/22)  
**Date:** Friday, November 4, 2022 11:41:02 AM

---

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

All,

XTO plans to complete final sampling activities at the following sites the week of Nov 7, 2022.

Monday

- Nash Unit 36/ nAPP2224236187
- ADU 624 & 641 / NAPP2123634554 & NAPP2215449179
- Poker Lake Unit 409/ nAPP2223751933

Tuesday

- Nash Unit 36/ nAPP2224236187
- ADU 624 & 641 / NAPP2123634554 & NAPP2215449179
- Poker Lake Unit 409/ nAPP2223751933

Wednesday

- ADU 624 & 641 / NAPP2123634554 & NAPP2215449179
- Poker Lake Unit 409/ nAPP2223751933

Thursday

- BEU DI 30 Battery/ NAPP2200746777
- Poker Lake Unit 409/ nAPP2223751933

Friday

- BEU DI 30 Battery/ NAPP2200746777

Thank you!

**Garrett Green**

Environmental Coordinator

Delaware Business Unit

(575) 200-0729

[Garrett.Green@ExxonMobil.com](mailto:Garrett.Green@ExxonMobil.com)

XTO Energy, Inc.

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

**From:** [Collins, Melanie](#)  
**To:** [ocd.enviro \(ocd.enviro@emnrd.nm.gov\)](#); [Hamlet, Robert, EMNRD \(Robert.Hamlet@emnrd.nm.gov\)](#); [Bratcher, Michael, EMNRD \(mike.bratcher@emnrd.nm.gov\)](#); [Harimon, Jocelyn, EMNRD \(Jocelyn.Harimon@emnrd.nm.gov\)](#)  
**Cc:** [Green, Garrett J; DelawareSpills /SM; Tacoma Morrissey](#)  
**Subject:** XTO - Sampling Notification (Week of 3/13/23 - 3/17/23)  
**Date:** Friday, March 10, 2023 9:39:39 AM  
**Attachments:** [image001.png](#)

---

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

All,

XTO plans to complete final sampling activities at the additional site the week of Mar 13, 2023.

- BEU 149/ NAB1814128371
- Nash Unit 36 / nAPP2224236187

Thank you,

*Melanie Collins*



Environmental Technician

[melanie.collins@exxonmobil.com](mailto:melanie.collins@exxonmobil.com)

432-556-3756

**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 264163

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 264163
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2224236187 NASH UNIT 36, thank you. This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation including pictures of the contoured backfilled excavation surface and a thorough discussion on reseeding mixture, vegetation ratio, timelines, etc., will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	1/31/2024