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Oil Conservation Division

Incident ID	nAPP2226628060
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Application ID	

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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.

<u>Closure Report Attachment Checklist</u> : Each of the following ite	ems must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29.11	I NMAC
Photographs of the remediated site prior to backfill or photos of must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate ODC	District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of a	ediate contamination that pose a threat to groundwater, surface water, C-141 report does not relieve the operator of responsibility for ions. The responsible party acknowledges they must substantially ditions that existed prior to the release or their final land use in
Printed Name: <u>Garrett Green</u>	Title: _Environmental Coordinator
Signature:_ Satt Sum	Date:06/09/2023
email: <u>_garrett.green@exxonmobil.com</u>	Telephone: <u>575-200-0729</u>
OCD Only	
Received by: <u>Robert Hamlet</u>	Date: <u>11/6/2023</u>
	of liability should their operations have failed to adequately investigate and vater, human health, or the environment nor does not relieve the responsible r regulations.
Closure Approved by: <u>Robert Hamlet</u>	Date: <u>11/6/2023</u>
Printed Name: Robert Hamlet	Title: Environmental Specialist - Advanced

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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

)

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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 32.33576

(NAD 83 in decimal degrees to 5 decimal places)

Site Name JRU 17 CTB	Site Type Central Tank Battery
Date Release Discovered 09/10/2022	API# (if applicable)

Unit Letter	Section	Township	Range	County
F	6	238	31E	Eddy

Surface Owner: State 🗵 Federal 🗌 Tribal 🗌 Private (Name: _

Nature and Volume of Release

Materia	l(s) Released (Select all that apply and attach calculations or specific	justification for the volumes provided below)
Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
► Produced Water	Volume Released (bbls) 47.36	Volume Recovered (bbls) 45.00
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release Corrosi truck re	on caused a release of fluids from a flow line associated ecovered all free fluids. A third-party contractor has been been as the fluids.	d with the James Ranch 17 and 7-30 CTBs. A vacuum en retained for remediation purposes.

Received	by O)CD: 6	/9/202321	0:52:09	AM .	of New Mexico	
orm C-	141				State	of New Mexico	

NA

Oil Conservation Division

Incident ID	NAPP2226628060
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Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?	
release as defined by	A release equal to or greater than 25 barrels.	
19.15.29.7(A) NMAC?		
If YES, was immediate n	notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	
Yes, by Melanie Collins to ocd.enviro@state.nm.us, Mike Bratcher, and Robert Hamlet on 09/11/2022 via email.		
, , ,		
·	notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

 \checkmark The source of the release has been stopped.

★ The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

▲ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have <u>not</u> been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name:	Title:
Signature:Satt Saturn email:	Date: 9/22/2022 Telephone: 575-200-0729
OCD Only Received by: Jocelyn Harimon	Date: 09/23/2022

Location:	JRU 17 CTB	
Spill Date:	9/10/2022	
	Area 1	
Approximate A	rea = 636.33	sq. ft.
Average Satura	tion (or depth) of spill = 1.25	inches
Average Porosi	ty Factor = 0.20	
	VOLUME OF LEAK	
Total Crude Oil	= 0.00	bbls
Total Produced	l Water = 47.36	bbls
	TOTAL VOLUME OF LEAK	
Total Crude Oi	l = 0.00	bbls
Total Produced	d Water = 47.36	bbls
	TOTAL VOLUME RECOVERED	
Total Crude Oi	0.00	bbls
Total Produced	d Water = 45.00	bbls

Received by OCD: 6/9/2023 10:52:09 AM Form C-141 State of New Mexico

Oil Conservation Division

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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>>100</u> (ft bgs)				
Did this release impact groundwater or surface water?					
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No				
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No				
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No				
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No				
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No				
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No				
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No				
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No				
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No				
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No				
Did the release impact areas not on an exploration, development, production, or storage site?	🛛 Yes 🗌 No				

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- \square Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

Received by OCD: 6/9/2023 10:	52:09 AM State of New Mexico		Page 6 of 2			
			Incident ID	NAPP2226628060		
Page 4	Oil Conservation Division		District RP			
			Facility ID			
			Application ID			
regulations all operators are require public health or the environment. failed to adequately investigate an addition, OCD acceptance of a C- and/or regulations. Printed Name: _Garrett Green	on given above is true and complete to the best of my red to report and/or file certain release notifications a The acceptance of a C-141 report by the OCD does n d remediate contamination that pose a threat to groun 141 report does not relieve the operator of responsibition 	nd perform co not relieve the ndwater, surfa lity for compl ental Coordir 12/8/2022	rrective actions for rele operator of liability sho ce water, human health iance with any other feo nator	eases which may endanger ould their operations have or the environment. In deral, state, or local laws		
OCD Only						
Received by:	I	Date:				

Received by OCD: 6/9/2023 10:52:09 AM Form C-141 State of New Mexico

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Oil Conservation Division

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

Incident ID	NAPP2226628060
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Remediation 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. Title: ____ Environmental Coordinator _____ Printed Name: Garrett Green Signature: _____ Date: __12/8/2022_____ Telephone: 575-200-0729 email: garrett.green@exxonmobil.com **OCD Only** Jocelyn Harimon Date: 12/09/2022 Received by: Approved X Approved with Attached Conditions of Approval Denied Deferral Approved Robert Hamlet Date: 3/17/2023 Signature:

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Oil Conservation Division

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Application ID	

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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.

C_{1} C_{2} C_{2	terms and the trade of the discrete memory of
<u>Closure Report Attachment Checklist</u> : Each of the following it	ems must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29.1	1 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate ODC	District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	nediate contamination that pose a threat to groundwater, surface water, a C-141 report does not relieve the operator of responsibility for tions. The responsible party acknowledges they must substantially additions that existed prior to the release or their final land use in
Signature:_ Satt Sum	Date:06/09/2023
email: <u>_garrett.green@exxonmobil.com</u>	Telephone: <u>575-200-0729</u>
OCD Only	
Received by:	Date:
	of liability should their operations have failed to adequately investigate and vater, human health, or the environment nor does not relieve the responsible or regulations.
Closure Approved by:	Date:
Printed Name:	Title:

ENSOLUM

June 9, 2023

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

Re: Closure Request JRU 17 CTB Incident Number NAPP2226628060 Eddy County, New Mexico

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document excavation and soil sampling activities performed at the JRU 17 Central Tank Battery (CTB, Site) in accordance with an approved *Remediation Work Plan* (*Work Plan*), dated December 9, 2022. The purpose of excavation and soil sampling activities was to address waste-containing soil resulting from a release of produced water at the Site. Based on the excavation activities and analytical results from soil sampling events, XTO is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2226628060.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit F, Section 6, Township 23 South, Range 31 East, in Eddy County, New Mexico (32.33576°N, 103.81984°W) and is associated with oil and gas exploration and production operations on Federal Land under the stewardship of the Bureau of Land Management (BLM).

On September 10, 2022, corrosion in a flowline resulted in the release of 47.36 barrels (bbls) of produced water to the surrounding pasture area. A vacuum truck was dispatched to the Site and recovered 45 bbls of the released fluids. XTO immediately reported the release to the NMOCD via email on September 11, 2022, and submitted a Release Notification Form C-141 (Form C-141) on September 22, 2022. The release was assigned Incident Number NAPP2226628060.

Ensolum personnel completed Site assessment and delineation sampling activities on November 21, 2022. A *Work Plan* was submitted on December 9, 2023, proposing excavation of elevated chloridecontaining soil in the top 4 feet within the release extent. The *Work Plan* was conditionally approved on March 17, 2023, specifying all soil samples be analyzed for all contaminants of concern (COCs).

SITE CHARACTERIZATION AND CLOSURE CRITERIA

Site characterization to assess applicability of the 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) was included in the approved *Work Plan*. Based on the Site Characterization, the following NMOCD Table I Closure Criteria were applied:

• Benzene: 10 milligrams per kilogram (mg/kg)

XTO Energy Closure Request JRU 17 CTB

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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

EXCAVATION SOIL SAMPLING ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On April 20, 2023, Ensolum personnel were at the Site to oversee excavation activities. Wastecontaining soil, identified during delineation and detailed in the *Work Plan* was excavated from the release area as indicated by visible staining and laboratory analytical results for the delineation soil samples. Excavation activities were performed using a hydro vacuum truck, track-mounted backhoe, and transport vehicles. The excavation occurred in the pasture. To direct excavation activities, soil was screeened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach[®] chloride QuanTab[®] test strips, respectively. The excavation was completed to a depth of 4 feet below ground surface (bgs). The excavation extent and excavation soil samples were mapped utilizing a handheld Global Positioning System (GPS) and are depicted on Figure 1. Photographic documentation of the excavation activities is included in Appendix A.

Following removal of the waste-containing soil, 5-point composite soil samples were collected at least every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS04 were collected from the floor of the excavation at a depth of 4 feet bgs. Composite soil samples SW01 through SW06 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 4 feet bgs.

The excavation soil samples were placed directly into pre-cleaned glass jars, labeled with 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 the following COCs: BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH- DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

The excavation area measured approximately 800 square feet. A total of approximately 120 cubic yards of waste-containing soil was removed during the excavation activities. The waste-containing soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico.

Laboratory analytical results for excavation floor samples FS01 through FS04 and sidewall samples SW01 through SW05 indicated all COC concentrations were compliant with the Closure Criteria and compliant with the reclamation requirement. Laboratory analytical results for sidewall sample SW06 indicated TPH exceeded the reclamation requirement applied in the top 4 feet. Additional soil was excavated in the vicinity of SW06 and additional sidewall sample SW07, collected from ground surface to 4 feet bgs, was collected and analyzed, which resulted in compliance with the Closure Criteria and reclamation requirement for northwestern sidewall area. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix B.



XTO Energy Closure Request JRU 17 CTB

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the September 10, 2022, release of produced water. Laboratory analytical results for the final excavation soil samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the Closure Criteria and the reclamation requirement, which confirms all waste-containing soil has been adequately removed to support the reclamation process. Based on the soil sample analytical results, no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture.

Excavation of waste-containing soil has mitigated potential adverse reclamation outcomes at this Site. Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number NAPP2226628060.

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

Sincerely, Ensolum, LLC

Mouissey

Tacoma Morrissey Senior Geologist

cc: Garrett Green, XTO Shelby Pennington, XTO Bureau of Land Management

Appendices:

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

Ashley L. Ager

Ashley Ager Principal





FIGURES





TABLES

.

Released to Imaging: 11/6/2023 11:19:05 AM

E N S O L U M

	TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS JRU 17 CTB 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 I C	Closure Criteria (N	MAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
				Exca	vation Soil San	nples	1		I	
FS01	04/20/2023	4	<0.00200	<0.00401	<49.9	80.1	<49.9	80.1	80.1	384
FS02	04/20/2023	4	<0.00198	0.0303	<50.0	<50.0	<50.0	<50.0	<50.0	1,150
FS03	04/20/2023	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	270
FS04	04/20/2023	4	<0.00200	<0.00401	<49.9	79.3	<49.9	79.3	79.3	725
SW01	04/20/2023	0-4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	226
SW02	04/20/2023	0-4	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	337
SW03	04/20/2023	0-4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	56.7
SW04	04/20/2023	0-4	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	69.8
SW05	04/20/2023	0-4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	95.9
SW06	04/20/2023	0-4	<0.00201	<0.00402	<50.0	183	<50.0	183	183	118
SW07	05/01/2023	0-4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	318

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 requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

.



APPENDIX A

Photographic Log





APPENDIX B

Laboratory Analytical Reports & Chain of Custody Documentation

Received by OCD: 6/9/2023 10:52:09 AM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 4/27/2023 8:04:05 AM Revision 1

JOB DESCRIPTION

JRU 17 CTB SDG NUMBER 03C1558135

JOB NUMBER

890-4558-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information.



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

AMER

Generated 4/27/2023 8:04:05 AM Revision 1

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

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QC Association Summary	21
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Certification Summary	28
Method Summary	29
Sample Summary	30
Chain of Custody	31
Receipt Checklists	32

... -

	Definitions/Glossary	
Client: Ensolu	um Job ID: 890-4558-1	
Project/Site: .	JRU 17 CTB SDG: 03C1558135	
Qualifiers		3
GC VOA		
Qualifier	Qualifier Description	
S1-	Surrogate recovery exceeds control limits, low biased.	
S1+	Surrogate recovery exceeds control limits, high biased.	5
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VO	Α	
Qualifier	Qualifier Description	
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.	8
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		Q
Qualifier	Qualifier Description	9
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	
N/I	Minimum Lovel (Dievin)	

- Minimum Level (Dioxin) ML
- 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: JRU 17 CTB

Job ID: 890-4558-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4558-1

REVISION

The report being provided is a revision of the original report sent on 4/25/2023. The report (revision 1) is being revised due to Per client email, requesting sample depth correction and re run SW06 for TPH.

Receipt

The samples were received on 4/21/2023 8:20 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 1.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SW01 (890-4558-1), SW02 (890-4558-2), SW03 (890-4558-3), SW04 (890-4558-4), SW05 (890-4558-5), SW06 (890-4558-6), FS01 (890-4558-7), FS02 (890-4558-8), FS03 (890-4558-9) and FS04 (890-4558-10).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: SW03 (890-4558-3). 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: FS04 (890-4558-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-51837/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW02 (890-4558-2), SW03 (890-4558-3), SW04 (890-4558-4), SW05 (890-4558-5), SW06 (890-4558-6), FS01 (890-4558-7), (890-4558-A-1-I MS) and (890-4558-A-1-J 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: FS02 (890-4558-8) and FS04 (890-4558-10). 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: (LCSD 880-52030/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52030 and analytical batch 880-52001 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.

HPLC/IC

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

Job ID: 890-4558-1 SDG: 03C1558135

RL

0.00199

0.00199

0.00199

0.00398

0.00199

0.00398

Limits

70 - 130

70 - 130

RL

RL

49.9

RL

49.9

49.9

49.9

Limits

70 - 130

0.00398

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Unit

Unit

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

D

D

D

04/24/23 11:06 04/24/23 12:31

Lab Sample ID: 890-4558-2

Client: Ensolum Project/Site: JRU 17 CTB

Analyte

Benzene

Toluene

o-Xylene

Surrogate

Analyte

Analyte

Analyte

C10-C28)

Surrogate

1-Chlorooctane

(GRO)-C6-C10

Total TPH

Total BTEX

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Gasoline Range Organics

Diesel Range Organics (Over

Oll Range Organics (Over C28-C36)

Client Sample ID: SW01 Date Collected: 04/20/23 12:50

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

Result Qualifier

<0.00199 U

<0.00199 U

<0.00199 U

<0.00398 U

<0.00199 U

<0.00398 U

%Recovery Qualifier

100

81

<0.00398 U

Result Qualifier

Result Qualifier

Result Qualifier

<49.9 U

<49.9 U

<49.9 U

<49.9 U

%Recovery Qualifier

126

Job ID: 890-4558-7
SDG: 03C155813

Lab Sample ID: 890-4558-1

Matrix: Calid

Matrix: Solid				
			4	
			5	
Prepared	Analyzed	Dil Fac		
04/24/23 08:38	•	1	6	
04/24/23 08:38	•	1		
04/24/23 08:38	04/24/23 12:11	1	7	
04/24/23 08:38	04/24/23 12:11	1	_	
04/24/23 08:38	04/24/23 12:11	1	8	
04/24/23 08:38	04/24/23 12:11	1		
Prepared	Analyzed	Dil Fac	9	
04/24/23 08:38	04/24/23 12:11	1		
04/24/23 08:38	04/24/23 12:11	1	10	
Prepared	Analyzed	Dil Fac	11	
	04/24/23 15:10	1	12	
Prepared	Analyzed	Dil Fac	13	
·	04/24/23 16:21	1		
			14	
Prepared	Analyzed	Dil Fac		
04/24/23 11:06	04/24/23 12:31	1		
04/24/23 11:06	04/24/23 12:31	1		
04/24/23 11:06	04/24/23 12:31	1		
Prepared	Analyzed	Dil Fac		

1

Matrix: Solid

o-Terphenyl	108		70 - 130			04/24/23 11:06	04/24/23 12:31	1
Method: EPA 300.0 - Anions, I	on Chromato	ography -	Soluble					
Analyte	Result (Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	226		5.03	mg/Kg			04/24/23 13:39	1

Client Sample ID: SW02 Date Collected: 04/20/23 12:55 Date Received: 04/21/23 08:20 Sample Depth: 0-4'

Method: SW846 8021B - Vo	latile Organic	Compoun	ds (GC)				
Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg	04/24/23 08:38	04/24/23 12:31	1
Toluene	<0.00200	U	0.00200	mg/Kg	04/24/23 08:38	04/24/23 12:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	04/24/23 08:38	04/24/23 12:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	04/24/23 08:38	04/24/23 12:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg	04/24/23 08:38	04/24/23 12:31	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	04/24/23 08:38	04/24/23 12:31	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130		04/24/23 08:38	04/24/23 12:31	1

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Job ID: 890-4558-1 SDG: 03C1558135

Lab Sample ID: 890-4558-2

Matrix: Solid

Date Collected: 04/20/23 12:55

Project/Site: JRU 17 CTB

Client Sample ID: SW02

Client: Ensolum

Method: SW846 8021B - Volat	tile Organic	Compound	ds (GC) (Contin	ued)				
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,4-Difluorobenzene (Surr)	89		70 - 130			04/24/23 08:38	04/24/23 12:31	
Method: TAL SOP Total BTEX	- Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00400	U	0.00400	mg/Kg			04/24/23 15:10	
Method: SW846 8015 NM - Di	esel Range (Organics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.8	U	49.8	mg/Kg			04/24/23 16:21	
Method: SW846 8015B NM - E	Diesel Range	• Organics	(DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		04/24/23 11:06	04/24/23 13:36	
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		04/24/23 11:06	04/24/23 13:36	
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/24/23 11:06	04/24/23 13:36	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil F
1-Chlorooctane	134	S1+	70 - 130			04/24/23 11:06	04/24/23 13:36	
o-Terphenyl	118		70 - 130			04/24/23 11:06	04/24/23 13:36	
Method: EPA 300.0 - Anions,	Ion Chroma	tography -	Soluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	337		4.98	mg/Kg			04/24/23 13:52	

Sample Depth: 0-4'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00202	U	0.00202	mg/Kg		04/24/23 08:38	04/24/23 12:52	1
Toluene	<0.00202	U	0.00202	mg/Kg		04/24/23 08:38	04/24/23 12:52	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/24/23 08:38	04/24/23 12:52	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		04/24/23 08:38	04/24/23 12:52	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/24/23 08:38	04/24/23 12:52	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		04/24/23 08:38	04/24/23 12:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			04/24/23 08:38	04/24/23 12:52	1
1,4-Difluorobenzene (Surr)	69	S1-	70 - 130			04/24/23 08:38	04/24/23 12:52	1
Method: TAL SOP Total BT	EX - Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			04/24/23 15:10	1
Method: SW846 8015 NM -	Diesel Range	Organics (DRO) (GC)					
				11	D	Dueuened	A so a lo sur a al	
Analyte	Result	Qualifier	RL	Unit	U	Prepared	Analyzed	Dil Fac

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Released to Imaging: 11/6/2023 11:19:05 AM

Client: Ensolum Project/Site: JRU 17 CTB

Client Sample ID: SW03

Date Collected: 04/20/23 14:40 Date Received: 04/21/23 08:20

Sample Depth: 0-4'

Method: SW846 8015B NM - E Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/24/23 11:06	04/24/23 13:57	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/24/23 11:06	04/24/23 13:57	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/24/23 11:06	04/24/23 13:57	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	136	S1+	70 - 130			04/24/23 11:06	04/24/23 13:57	
o-Terphenyl	120		70 - 130			04/24/23 11:06	04/24/23 13:57	
Method: EPA 300.0 - Anions,	Ion Chroma	tography -	Soluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	56.7		5.00	mg/Kg			04/24/23 13:57	
Client Sample ID: SW04 ate Collected: 04/20/23 14:45			5.00			Lab Samp	le ID: 890-4 Matrix	
Client Sample ID: SW04 Pate Collected: 04/20/23 14:45 Pate Received: 04/21/23 08:20 Cample Depth: 0-4'			5.00	ingrig		Lab Samp		
Client Sample ID: SW04 ate Collected: 04/20/23 14:45 ate Received: 04/21/23 08:20 ample Depth: 0-4' Method: SW846 8021B - Volat	tile Organic		ds (GC)				Matrix	:: Solic
Client Sample ID: SW04 ate Collected: 04/20/23 14:45 ate Received: 04/21/23 08:20 ample Depth: 0-4' Method: SW846 8021B - Volat Analyte	tile Organic Result	Qualifier	ds (GC) RL	Unit	D	Prepared	Matrix Analyzed	Dil Fac
Client Sample ID: SW04 ate Collected: 04/20/23 14:45 ate Received: 04/21/23 08:20 ample Depth: 0-4' Method: SW846 8021B - Volat Analyte	tile Organic Result <0.00202	Qualifier	ds (GC) 	Unit mg/Kg	<u>D</u>	Prepared 04/24/23 08:38	Matrix Analyzed 04/24/23 13:12	Dil Fac
Client Sample ID: SW04 ate Collected: 04/20/23 14:45 ate Received: 04/21/23 08:20 ample Depth: 0-4' Method: SW846 8021B - Volat Analyte Benzene	tile Organic Result	Qualifier	ds (GC) RL	Unit	D	Prepared 04/24/23 08:38	Matrix Analyzed	Dil Fac
Client Sample ID: SW04 ate Collected: 04/20/23 14:45 ate Received: 04/21/23 08:20 ample Depth: 0-4' Method: SW846 8021B - Volat Analyte Benzene Toluene	tile Organic Result <0.00202	Qualifier U U	ds (GC) 	Unit mg/Kg	D	Prepared 04/24/23 08:38 04/24/23 08:38	Matrix Analyzed 04/24/23 13:12	Dil Fac
Client Sample ID: SW04 ate Collected: 04/20/23 14:45 ate Received: 04/21/23 08:20 ample Depth: 0-4' Method: SW846 8021B - Volat Analyte Benzene Toluene Ethylbenzene	tile Organic Result <0.00202 <0.00202	Qualifier U U U	ds (GC) RL 	Unit mg/Kg mg/Kg	D	Prepared 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38	Matrix Analyzed 04/24/23 13:12 04/24/23 13:12	Dil Fac
Client Sample ID: SW04 ate Collected: 04/20/23 14:45 ate Received: 04/21/23 08:20 ample Depth: 0-4' Method: SW846 8021B - Volat Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	tile Organic Result <0.00202 <0.00202 <0.00202	Qualifier U U U U	ds (GC) <u>RL</u> 0.00202 0.00202 0.00202	Unit mg/Kg mg/Kg mg/Kg	<u>D</u>	Prepared 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38	Matrix Analyzed 04/24/23 13:12 04/24/23 13:12 04/24/23 13:12	Dil Fac
Client Sample ID: SW04 ate Collected: 04/20/23 14:45 ate Received: 04/21/23 08:20 ample Depth: 0-4' Method: SW846 8021B - Volat Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	tile Organic Result <0.00202 <0.00202 <0.00202 <0.00202 <0.00403	Qualifier U U U U U U	ds (GC) <u>RL</u> 0.00202 0.00202 0.00202 0.00403	Unit mg/Kg mg/Kg mg/Kg mg/Kg	D	Prepared 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38	Matrix Analyzed 04/24/23 13:12 04/24/23 13:12 04/24/23 13:12 04/24/23 13:12	Dil Fac
Client Sample ID: SW04 ate Collected: 04/20/23 14:45 ate Received: 04/21/23 08:20 ample Depth: 0-4' Method: SW846 8021B - Volat Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total	tile Organic Result <0.00202 <0.00202 <0.00202 <0.00403 <0.00202	Qualifier U U U U U U U	s (GC) RL 0.00202 0.00202 0.00202 0.00202 0.00403 0.00202	Unit mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	<u>D</u>	Prepared 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38	Matrix Analyzed 04/24/23 13:12 04/24/23 13:12 04/24/23 13:12 04/24/23 13:12 04/24/23 13:12	Dil Fac
Client Sample ID: SW04 ate Collected: 04/20/23 14:45 ate Received: 04/21/23 08:20	tile Organic Result <0.00202 <0.00202 <0.00202 <0.00403 <0.00202 <0.00403	Qualifier U U U U U U U	ds (GC) <u>RL</u> 0.00202 0.00202 0.00202 0.00403 0.00202 0.00403	Unit mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	<u>D</u>	Prepared 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38 04/24/23 08:38	Matrix Analyzed 04/24/23 13:12 04/24/23 13:12 04/24/23 13:12 04/24/23 13:12 04/24/23 13:12 04/24/23 13:12	Dil Fac Dil Fac

Method: TAL SOP Total BTEX	- Total BTE	X Calculati	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			04/24/23 15:10	1
Method: SW846 8015 NM - Die	sel Range	Organics (I	DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			04/24/23 16:21	1
		0	1010	mg/rtg			04/24/20 10.21	I
 Method: SW846 8015B NM - Di		-					04/24/20 10.21	·

Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg	04/24/23 11:06	04/24/23 14:19	1
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg	04/24/23 11:06	04/24/23 14:19	1
C10-C28) Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg	04/24/23 11:06	04/24/23 14:19	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	139	S1+	70 - 130		04/24/23 11:06	04/24/23 14:19	1
o-Terphenyl	123		70 - 130		04/24/23 11:06	04/24/23 14:19	1

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Job ID: 890-4558-1 SDG: 03C1558135

Lab Sample ID: 890-4558-3

Matrix: Solid

5

·		Client	t Sample Re	sults				0 0
Client: Ensolum Project/Site: JRU 17 CTB							Job ID: 890- SDG: 03C1	
Client Sample ID: SW04						Lab Samp	le ID: 890-4	558-4
Date Collected: 04/20/23 14:45 Date Received: 04/21/23 08:20 Sample Depth: 0-4'								: Solid
Method: EPA 300.0 - Anions, Analyte		t <mark>ography</mark> Qualifier	- Soluble RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.8		5.01	mg/Kg			04/24/23 14:01	1
Client Sample ID: SW05 Date Collected: 04/20/23 13:00 Date Received: 04/21/23 08:20 Sample Depth: 0-4'						Lab Samp	le ID: 890-4 Matrix	1 558-5 (: Solid
Method: SW846 8021B - Volat	tile Organic	Compour	ids (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 13:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 13:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 13:33	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/24/23 08:38	04/24/23 13:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 13:33	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/24/23 08:38	04/24/23 13:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			04/24/23 08:38	04/24/23 13:33	1
1,4-Difluorobenzene (Surr)	89		70 - 130			04/24/23 08:38	04/24/23 13:33	1
Method: TAL SOP Total BTEX	- Total BTE	X Calcula	tion					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			04/24/23 15:10	1
Method: SW846 8015 NM - Di		-						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/24/23 16:21	1
Method: SW846 8015B NM - D	Diesel Range	• Organic	s (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/24/23 11:06	04/24/23 14:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/24/23 11:06	04/24/23 14:41	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/24/23 11:06	04/24/23 14:41	1
Surrogate	%Recovery		Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	146	S1+	70 - 130			04/24/23 11:06	04/24/23 14:41	1
o-Terphenyl	125		70 - 130			04/24/23 11:06	04/24/23 14:41	1
Method: EPA 300.0 - Anions,	Ion Chroma	tography	- Soluble					
Analyte		Qualifier		11	-	B		
Analyte	Result	Quaimer	RL	Unit	D	Prepared	Analyzed	Dil Fac

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Client: Ensolum Project/Site: JRU 17 CTB

Client Sample ID: SW06 Date Collected: 04/20/23 13:05

Method: SW846 8021B - Volat Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/24/23 08:38	04/24/23 13:53	· · ·
Toluene	<0.00201	U	0.00201	mg/Kg		04/24/23 08:38	04/24/23 13:53	
Ethylbenzene	<0.00201		0.00201	mg/Kg			04/24/23 13:53	
n-Xylene & p-Xylene	<0.00402		0.00402	mg/Kg			04/24/23 13:53	
p-Xylene	< 0.00201		0.00201	mg/Kg			04/24/23 13:53	
Kylenes, Total	<0.00402		0.00402	mg/Kg			04/24/23 13:53	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Bromofluorobenzene (Surr)	104		70 - 130			04/24/23 08:38	04/24/23 13:53	
,4-Difluorobenzene (Surr)	81		70 - 130			04/24/23 08:38	04/24/23 13:53	
Method: TAL SOP Total BTEX								
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
otal BTEX	<0.00402	U	0.00402	mg/Kg	_		04/24/23 15:10	
Method: SW846 8015 NM - Di		-				_	_	
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	178		49.9	mg/Kg	_		04/24/23 16:21	
Method: SW846 8015B NM - D								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/26/23 11:20	04/26/23 16:52	
Diesel Range Organics (Over C10-C28)	178		49.9	mg/Kg		04/26/23 11:20	04/26/23 16:52	
DII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/26/23 11:20	04/26/23 16:52	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
-Chlorooctane	74		70 - 130			04/26/23 11:20	04/26/23 16:52	
p-Terphenyl	77		70 - 130			04/26/23 11:20	04/26/23 16:52	
Method: EPA 300.0 - Anions,			Soluble					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	118		4.97	mg/Kg	_		04/24/23 14:20	
light Sample ID: ES04						Lab Samp	le ID: 890-4	558-7
-							Matrix	C Soli
lient Sample ID: FS01 ate Collected: 04/20/23 14:50 ate Received: 04/21/23 08:20							Matrix	:: Solid
ate Collected: 04/20/23 14:50 ate Received: 04/21/23 08:20 ample Depth: 4' bgs							Matrix	:: Solic
ate Collected: 04/20/23 14:50 ate Received: 04/21/23 08:20 ample Depth: 4' bgs Method: SW846 8021B - Volat	tile Organic Result	Qualifier	ds (GC) RL	Unit	D	Prepared	Matrix Analyzed	
ate Collected: 04/20/23 14:50 ate Received: 04/21/23 08:20 ample Depth: 4' bgs Method: SW846 8021B - Volat nalyte	tile Organic	Qualifier		Unit mg/Kg	<u>D</u>	Prepared 04/24/23 08:38		
ate Collected: 04/20/23 14:50 ate Received: 04/21/23 08:20 ample Depth: 4' bgs Method: SW846 8021B - Volat analyte enzene	tile Organic Result	Qualifier	RL		<u>D</u>	04/24/23 08:38	Analyzed	
ate Collected: 04/20/23 14:50 ate Received: 04/21/23 08:20 ample Depth: 4' bgs Method: SW846 8021B - Volat malyte senzene oluene	tile Organic Result <0.00200	Qualifier U U	RL 0.00200	mg/Kg	<u>D</u>	04/24/23 08:38 04/24/23 08:38	Analyzed 04/24/23 14:14	Dil Fac
ate Collected: 04/20/23 14:50	tile Organic Result <0.00200 <0.00200	Qualifier U U U	RL 0.00200 0.00200	mg/Kg mg/Kg	<u>D</u>	04/24/23 08:38 04/24/23 08:38 04/24/23 08:38	Analyzed 04/24/23 14:14 04/24/23 14:14	Dil Fa

0.00401

mg/Kg

<0.00401 U

Matrix: Solid

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Lab Sample ID: 890-4558-6

Xylenes, Total

4-Bromofluorobenzene (Surr)

Surrogate

 Prepared
 Analyzed
 Dil Fac

 04/24/23
 08:38
 04/24/23
 14:14
 1

04/24/23 08:38 04/24/23 14:14

14:14 1

1

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5

Job ID: 890-4558-1 SDG: 03C1558135

Client Sample ID: FS01 Date Collected: 04/20/23 14:50

Project/Site: JRU 17 CTB

Client: Ensolum

Lab Sample ID: 890-4558-7 Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
,4-Difluorobenzene (Surr)	99	duiner	70 - 130			<u> </u>	04/24/23 14:14	
Method: TAL SOP Total BTEX	(- Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
otal BTEX	<0.00401	U	0.00401	mg/Kg			04/24/23 15:10	
Method: SW846 8015 NM - Di	esel Range	Organics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil F
Total TPH	80.1		49.9	mg/Kg			04/24/23 16:21	
Method: SW846 8015B NM - [Diesel Range	• Organics	(DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil F
Gasoline Range Organics GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/24/23 11:06	04/24/23 15:52	
Diesel Range Organics (Over C10-C28)	80.1		49.9	mg/Kg		04/24/23 11:06	04/24/23 15:52	
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/24/23 11:06	04/24/23 15:52	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil F
-Chlorooctane	139	S1+	70 - 130			04/24/23 11:06	04/24/23 15:52	
-Terphenyl	124		70 - 130			04/24/23 11:06	04/24/23 15:52	
Method: EPA 300.0 - Anions,			Soluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil F
Chloride	384		5.00	mg/Kg			04/24/23 14:24	

Method: SW846 8021B - Vo	latile Organic	Compound	ds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		04/24/23 08:38	04/24/23 14:34	1
Toluene	0.00499		0.00198	mg/Kg		04/24/23 08:38	04/24/23 14:34	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		04/24/23 08:38	04/24/23 14:34	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		04/24/23 08:38	04/24/23 14:34	1
o-Xylene	0.0253		0.00198	mg/Kg		04/24/23 08:38	04/24/23 14:34	1
Xylenes, Total	0.0253		0.00397	mg/Kg		04/24/23 08:38	04/24/23 14:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			04/24/23 08:38	04/24/23 14:34	1
1,4-Difluorobenzene (Surr)	80		70 - 130			04/24/23 08:38	04/24/23 14:34	1
Method: TAL SOP Total BT	EX - Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0303		0.00397	mg/Kg			04/24/23 15:10	1
	Diesel Range	Organics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/24/23 21:44	1

Released to Imaging: 11/6/2023 11:19:05 AM

4/27/2023 (Rev. 1)

Client: Ensolum Project/Site: JRU 17 CTB

Client Sample ID: FS02

Date Collected: 04/20/23 13:10 Date Received: 04/21/23 08:20

Sample Depth: 4' bgs

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/24/23 11:06	04/24/23 16:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/24/23 11:06	04/24/23 16:14	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/24/23 11:06	04/24/23 16:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130			04/24/23 11:06	04/24/23 16:14	1
o-Terphenyl	122		70 - 130			04/24/23 11:06	04/24/23 16:14	1
Method: EPA 300.0 - Anions,	Ion Chromat	tography -	Soluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1150		5.01	mg/Kg			04/24/23 14:29	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/24/23 08:38	04/24/23 14:55	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/24/23 08:38	04/24/23 14:55	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/24/23 08:38	04/24/23 14:55	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/24/23 08:38	04/24/23 14:55	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/24/23 08:38	04/24/23 14:55	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/24/23 08:38	04/24/23 14:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			04/24/23 08:38	04/24/23 14:55	1
1,4-Difluorobenzene (Surr)	76		70 - 130			04/24/23 08:38	04/24/23 14:55	1
Method: TAL SOP Total BTEX	- Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Quanner		Onit		riepareu	Analyzeu	Diriao
	<0.00402		0.00402	mg/Kg			04/24/23 15:10	1
Total BTEX	<0.00402	U	0.00402					
Total BTEX Method: SW846 8015 NM - Die	<0.00402	U	0.00402		<u>_</u> D	Prepared		1
Total BTEX Method: SW846 8015 NM - Die Analyte	<0.00402	U Organics (Qualifier	0.00402	mg/Kg		<u>·</u>	04/24/23 15:10	
Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH	<0.00402 esel Range (Result <49.9	U Organics (Qualifier U	0.00402 DRO) (GC) RL 49.9	mg/Kg Unit		<u>·</u>	04/24/23 15:10 Analyzed	1
Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - C	<0.00402 esel Range (Result <49.9 Diesel Range	U Organics (Qualifier U	0.00402 DRO) (GC) RL 49.9	mg/Kg Unit		<u>·</u>	04/24/23 15:10 Analyzed	1 Dil Fac
Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics	<0.00402 esel Range (Result <49.9 Diesel Range	U Organics (Qualifier U Organics Qualifier	0.00402 DRO) (GC) RL 49.9 (DRO) (GC)	mg/Kg Unit mg/Kg	D	Prepared	04/24/23 15:10 Analyzed 04/24/23 21:44	1 Dil Fac
Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<0.00402 esel Range (Result <49.9 Diesel Range Result	U Organics (Qualifier U Organics Qualifier U	0.00402 DRO) (GC) RL 49.9 (DRO) (GC) RL	Unit mg/Kg mg/Kg Unit	D	Prepared	04/24/23 15:10 Analyzed 04/24/23 21:44 Analyzed	1 Dil Fac
Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Colored Col	U Organics (Qualifier U Organics Qualifier U U	0.00402 DRO) (GC) RL 49.9 (DRO) (GC) RL 49.9	Unit mg/Kg mg/Kg Unit mg/Kg	D	Prepared Prepared 04/24/23 11:06	Analyzed 04/24/23 15:10 Analyzed 04/24/23 21:44 Analyzed 04/24/23 16:36	1 Dil Fac 1 Dil Fac
Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<0.00402 esel Range (Result <49.9 Diesel Range (Result <49.9	U Organics (Qualifier U Organics Qualifier U U U	0.00402 DRO) (GC) RL 49.9 (DRO) (GC) RL 49.9 49.9	Unit mg/Kg mg/Kg Unit mg/Kg mg/Kg	D	Prepared Prepared 04/24/23 11:06 04/24/23 11:06	Analyzed 04/24/23 15:10 Analyzed 04/24/23 21:44 Analyzed 04/24/23 16:36 04/24/23 16:36	1 Dil Fac 1 Dil Fac 1 1
Total BTEX Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<0.00402 esel Range (Result <49.9 Diesel Range (Result <49.9 <49.9 <49.9	U Organics (Qualifier U Organics Qualifier U U U	0.00402 DRO) (GC) RL 49.9 (DRO) (GC) RL 49.9 49.9 49.9	Unit mg/Kg mg/Kg Unit mg/Kg mg/Kg	D	Prepared Prepared 04/24/23 11:06 04/24/23 11:06 04/24/23 11:06	Analyzed 04/24/23 15:10 Analyzed 04/24/23 21:44 Analyzed 04/24/23 16:36 04/24/23 16:36 04/24/23 16:36 04/24/23 16:36	Dil Fac 1 Dil Fac 1 1

Job ID: 890-4558-1 SDG: 03C1558135

Lab Sample ID: 890-4558-8

Matrix: Solid

Matrix: Solid

		Client	Sample Res	sults				
Client: Ensolum Project/Site: JRU 17 CTB							Job ID: 890- SDG: 03C1	
Client Sample ID: FS03 Date Collected: 04/20/23 13:15 Date Received: 04/21/23 08:20 Sample Depth: 4' bgs						Lab Samp	le ID: 890-4 Matrix	558-9 Solid
Method: EPA 300.0 - Anions, I Analyte		tography Qualifier	- Soluble RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	270		5.03	mg/Kg			04/24/23 14:33	1
Client Sample ID: FS04 Date Collected: 04/20/23 14:35 Date Received: 04/21/23 08:20 Sample Depth: 4' bgs					L	ab Sample.	D: 890-45 Matrix	58-10 :: Solid
Method: SW846 8021B - Volati	-							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200		0.00200	mg/Kg		04/24/23 08:38	04/24/23 15:15	1
Toluene	<0.00200		0.00200	mg/Kg		04/24/23 08:38	04/24/23 15:15	1
Ethylbenzene	<0.00200		0.00200	mg/Kg		04/24/23 08:38	04/24/23 15:15	1
m-Xylene & p-Xylene	<0.00401		0.00401	mg/Kg			04/24/23 15:15	1
o-Xylene	<0.00200		0.00200	mg/Kg			04/24/23 15:15	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		04/24/23 08:38	04/24/23 15:15	1
Surrogate	%Recovery		Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		S1+	70 - 130			04/24/23 08:38	04/24/23 15:15	1
1,4-Difluorobenzene (Surr)	97		70 - 130			04/24/23 08:38	04/24/23 15:15	1
Method: TAL SOP Total BTEX	- Total BTE	X Calcula	tion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			04/24/23 21:59	1
Method: SW846 8015 NM - Die	sel Range	Organics ((DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	79.3		49.9	mg/Kg			04/24/23 21:44	1
Method: SW846 8015B NM - D	iosol Range	Organice						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9		49.9	mg/Kg		04/24/23 11:06		1
(GRO)-C6-C10				33				
Diesel Range Organics (Over	79.3		49.9	mg/Kg		04/24/23 11:06	04/24/23 16:59	1
C10-C28) Oll Range Organics (Over C28-C36)	<10.0		40.0	malka		04/04/02 11:06	04/04/02 16:50	1
Oli Range Organics (Over C26-C36)	<49.9	U	49.9	mg/Kg		04/24/23 11:00	04/24/23 16:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130			04/24/23 11:06	04/24/23 16:59	1
o-Terphenyl	117		70 - 130			04/24/23 11:06	04/24/23 16:59	1
Method: EPA 300.0 - Anions, I	on Chrome	tography	Solubla					
Analyte	Rocult	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

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Surrogate Summary

Client: Ensolum Project/Site: JRU 17 CTB

Method: 8021B - Volatile Organic Compounds (GC) Matrix: Solid

Percent Surrogate Recovery (Acceptance Limits) DFBZ1 BFB1 **Client Sample ID** (70-130) (70-130) Lab Sample ID 890-4558-1 SW01 100 81 890-4558-1 MS SW01 113 107 890-4558-1 MSD SW01 125 110 SW02 890-4558-2 116 89 890-4558-3 SW03 104 69 S1-SW04 890-4558-4 104 88 890-4558-5 SW05 93 89 890-4558-6 SW06 104 81 890-4558-7 FS01 114 99 890-4558-8 FS02 101 80 890-4558-9 FS03 105 76 890-4558-10 FS04 143 S1+ 97 LCS 880-51796/1-A Lab Control Sample 122 108 LCSD 880-51796/2-A Lab Control Sample Dup 105 111 Method Blank 74 82 MB 880-51796/5-A Surrogate Legend BFB = 4-Bromofluorobenzene (Surr) DFBZ = 1,4-Difluorobenzene (Surr)

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

Percent Surrogate Recovery (Acceptance Limits) 1CO1 OTPH1 (70-130) (70-130) Lab Sample ID **Client Sample ID** 880-27622-A-1-I MS 85 80 Matrix Spike 880-27622-A-1-J MSD Matrix Spike Duplicate 79 75 890-4558-1 SW01 126 108 890-4558-1 MS SW01 137 S1+ 105 SW01 101 890-4558-1 MSD 135 S1+ 890-4558-2 SW02 134 S1+ 118 890-4558-3 SW03 136 S1+ 120 890-4558-4 SW04 139 S1+ 123 890-4558-5 SW05 146 S1+ 125 890-4558-6 SW06 74 77 890-4558-7 FS01 139 S1+ 124 FS02 142 S1+ 890-4558-8 122 FS03 890-4558-9 125 104 890-4558-10 **FS04** 117 132 S1+ LCS 880-51837/2-A 144 S1+ Lab Control Sample 127 LCS 880-52030/2-A Lab Control Sample 74 71 LCSD 880-51837/3-A Lab Control Sample Dup 129 110 74 69 S1-LCSD 880-52030/3-A Lab Control Sample Dup MB 880-51837/1-A Method Blank 123 116 MB 880-52030/1-A Method Blank 99 99

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Job ID: 890-4558-1 SDG: 03C1558135

Prep Type: Total/NA

Prep Type: Total/NA

QC Sample Results

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Job ID: 890-4558-1

SDG: 03C1558135

Prep Type: Total/NA Prep Batch: 51796

Prep Type: Total/NA

Client Sample ID: Method Blank

Client: Ensolum Project/Site: JRU 17 CTB

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-51796/5-A **Matrix: Solid Analysis Batch: 51793**

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130			04/24/23 08:38	04/24/23 11:49	1
1,4-Difluorobenzene (Surr)	82		70 - 130			04/24/23 08:38	04/24/23 11:49	1

Lab Sample ID: LCS 880-51796/1-A Matrix: Solid Analysis Batch: 51793

Analysis Batch: 51793							Prep Batch: 51796
	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.100	0.1035		mg/Kg		104	70 - 130
Toluene	0.100	0.1043		mg/Kg		104	70 - 130
Ethylbenzene	0.100	0.1111		mg/Kg		111	70 - 130
m-Xylene & p-Xylene	0.200	0.2455		mg/Kg		123	70 - 130
o-Xylene	0.100	0.1233		mg/Kg		123	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-51796/2-A Matrix: Solid

Analysis Batch: 51793

Allalysis Daluli. 51735							Fiehe	ballin.	51730
-	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09764		mg/Kg		98	70 - 130	6	35
Toluene	0.100	0.08748		mg/Kg		87	70 - 130	18	35
Ethylbenzene	0.100	0.08911		mg/Kg		89	70 - 130	22	35
m-Xylene & p-Xylene	0.200	0.1898		mg/Kg		95	70 - 130	26	35
o-Xylene	0.100	0.09531		mg/Kg		95	70 - 130	26	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 890-4558-1 MS Matrix: Solid

Matrix: Solid Analysis Batch: 51793									· Prep Ty Prep B	pe: Tota Batch: 5	
-	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	<0.00199	U	0.100	0.08830		mg/Kg		88	70 - 130		
Toluene	<0.00199	U	0.100	0.08528		mg/Kg		85	70 - 130		

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Client Sample ID: SW01

Released to Imaging: 11/6/2023 11:19:05 AM

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 51796

Client Sample ID: Lab Control Sample

Lab Sample ID: 890-4558-1 MS

QC Sample Results

Spike

0.100

0.200

0.100

Limits

70 - 130

70 - 130

Added

MS MS

0.08966

0.1901

0.09454

Result Qualifier

Client: Ensolum Project/Site: JRU 17 CTB

Analysis Batch: 51793

4-Bromofluorobenzene (Surr)

Analysis Batch: 51793

Lab Sample ID: 890-4558-1 MSD

1,4-Difluorobenzene (Surr)

Matrix: Solid

Analyte

o-Xylene

Surrogate

Matrix: Solid

Analyte

Ethylbenzene

m-Xylene & p-Xylene

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

Sample Sample

MS MS

%Recovery Qualifier

113

107

<0.00199 U

<0.00398 U

<0.00199 U

Result Qualifier

Job ID: 890-4558-1 SDG: 03C1558135

Prep Batch: 51796

Client Sample ID: SW01 Prep Type: Total/NA

%Rec

Limits

70 - 130

70 - 130

70 - 130

70 - 130

70 - 130

70 - 130

Client Sample ID: Method Blank

Analyzed

Prep Type: Total/NA

04/24/23 08:06 04/24/23 09:03

04/24/23 08:06 04/24/23 09:03

Client Sample ID: Lab Control Sample

Dil Fac

1

1

Prep Type: Total/NA

Client Sample

ID: SW01 ; Total/NA	
ch: 51796 RPD	
RPD Limit	

35

35

35

35

35

10

10

11

						ionic oannp	
						Prep Ty	pe: Tota
						Prep E	atch: 5
Spike	MSD	MSD				%Rec	
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD
0.101	0.09229		mg/Kg		92	70 - 130	4
0.101	0.08994		mg/Kg		89	70 - 130	5

mg/Kg

mg/Kg

mg/Kg

Unit

mg/Kg

mg/Kg

mg/Kg

D %Rec

89

95

94

98

105

105

Prepared

Benzene	< 0.00199	U	0.101	0.09229	
Toluene	<0.00199	U	0.101	0.08994	
Ethylbenzene	<0.00199	U	0.101	0.09870	
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2109	
o-Xylene	<0.00199	U	0.101	0.1058	
	MSD	MSD			
Surrogate	%Recovery	Qualifier	Limits		
4-Bromofluorobenzene (Surr)	125		70 - 130		
1,4-Difluorobenzene (Surr)	110		70 - 130		

Sample Sample

Result Qualifier

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

Lab Sample ID: MB 880-51837/1-A **Matrix: Solid** Analysis Batch: 51822

Analysis Batch: 51822							Prep Batch	51837
	MB	МВ					-	
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/24/23 08:06	04/24/23 09:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/24/23 08:06	04/24/23 09:03	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/24/23 08:06	04/24/23 09:03	1
	MB	МВ						

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	123		70 - 130
o-Terphenyl	116		70 - 130

Lab Sample ID: LCS 880-51837/2-A Matrix: Solid Analysis Batch: 51822

Analysis Batch: 51822							Prep I	Batch: 51837
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1146		mg/Kg		115	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1179		mg/Kg		118	70 - 130	
C10-C28)								

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Released to Imaging: 11/6/2023 11:19:05 AM

QC Sample Results

Client: Ensolum Project/Site: JRU 17 CTB

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

Lab Sample ID: LCS 880- Matrix: Solid	-51837/2-A					Clier	nt Sa	mple ID	: Lab Cor Prep Ty		
Analysis Batch: 51822										Batch: 8	
	LCS	LCS									
Surrogate	%Recovery		Limits								
1-Chlorooctane		S1+	70 - 130								
o-Terphenyl	127		70 - 130								
Lab Sample ID: LCSD 88	0-51837/3-A				c	lient Sa	mple	ID: Lat	o Control	Sample	e Di
Matrix: Solid									Prep Ty		
Analysis Batch: 51822										Batch: {	
			Spike	LCSD	LCSD				%Rec		R
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Li
Gasoline Range Organics			1000	1025		mg/Kg		103	70 - 130	11	
(GRO)-C6-C10											
Diesel Range Organics (Over C10-C28)			1000	1132		mg/Kg		113	70 - 130	4	
,	LCSD	LCSD									
Surrogate	%Recovery		Limits								
1-Chlorooctane	129		70 - 130								
o-Terphenyl	110		70 - 130								
Lab Sample ID: 890-4558 Matrix: Solid Analysis Batch: 51822		0	0							pe: Tot Batch: {	al/l
Matrix: Solid Analysis Batch: 51822	Sample	Sample Qualifier	Spike Added	-	MS Qualifier	Unit	D	%Rec	Prep Ty Prep E %Rec		al/I
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics	Sample	Qualifier	Spike Added 997	-	MS Qualifier	Unit mg/Kg	D	%Rec	Prep Ty Prep E		al/l
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10	Sample Result <49.9	Qualifier U	Added 997	Result 1180	-	mg/Kg	<u>D</u>	115	Prep Ty Prep E %Rec Limits 70 - 130		al/l
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics	Sample Result	Qualifier U	Added	Result	-		<u>D</u>		Prep Ty Prep E %Rec Limits		al/l
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Sample Result <49.9 <49.9 MS	Qualifier U U MS	Added 997	Result 1180	-	mg/Kg	<u>D</u>	115	Prep Ty Prep E %Rec Limits 70 - 130		al/l
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	Sample Result <49.9 <49.9 MS %Recovery	Qualifier U U MS Qualifier	Added 997 997 Limits	Result 1180	-	mg/Kg	<u>D</u>	115	Prep Ty Prep E %Rec Limits 70 - 130		al/I
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane	Sample Result <49.9 <49.9 %Recovery 137	Qualifier U U MS	Added 997 997 <u>Limits</u> 70 - 130	Result 1180	-	mg/Kg	<u>D</u>	115	Prep Ty Prep E %Rec Limits 70 - 130		al/l
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	Sample Result <49.9 <49.9 MS %Recovery	Qualifier U U MS Qualifier	Added 997 997 Limits	Result 1180	-	mg/Kg	<u>D</u>	115	Prep Ty Prep E %Rec Limits 70 - 130		al/I
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane	Sample Result <49.9 <49.9 MS %Recovery 137 105	Qualifier U U MS Qualifier	Added 997 997 <u>Limits</u> 70 - 130	Result 1180	-	mg/Kg	<u>D</u>	115	Prep Ty Prep E %Rec Limits 70 - 130	Batch: {	al// 518
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl	Sample Result <49.9 <49.9 MS %Recovery 137 105	Qualifier U U MS Qualifier	Added 997 997 <u>Limits</u> 70 - 130	Result 1180	-	mg/Kg	<u> </u>	115	Prep Ty Prep E %Rec Limits 70 - 130 70 - 130	Batch: {	al/I 518
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4558	Sample Result <49.9 <49.9 MS %Recovery 137 105	Qualifier U U MS Qualifier	Added 997 997 <u>Limits</u> 70 - 130	Result 1180	-	mg/Kg	<u>D</u>	115	Prep Ty %Rec Limits 70 - 130 70 - 130	Batch: {	al/l 518 SW al/l
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4558 Matrix: Solid	Sample Result <49.9 <49.9 <i>MS</i> <i>%Recovery</i> 137 105 -1 MSD	Qualifier U U MS Qualifier	Added 997 997 <u>Limits</u> 70 - 130	Result 1180 1209	-	mg/Kg	<u>D</u>	115	Prep Ty %Rec Limits 70 - 130 70 - 130	Satch: {	al/I 518 SW al/I 518
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4558 Matrix: Solid Analysis Batch: 51822 Analyte	Sample Result <49.9 <49.9 MS %Recovery 137 105 -1 MSD Sample Result	Qualifier U MS Qualifier S1+ Sample Qualifier	Added 997 997 <u>Limits</u> 70 - 130 70 - 130	Result 1180 1209 MSD	Qualifier	mg/Kg		115	Prep Ty Prep E %Rec Limits 70 - 130 70 - 130	Satch: {	al// 518 SW al// 518
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4558 Matrix: Solid Analysis Batch: 51822	Sample Result <49.9 <49.9 MS %Recovery 137 105 -1 MSD Sample	Qualifier U MS Qualifier S1+ Sample Qualifier	Added 997 997 <u>Limits</u> 70 - 130 70 - 130 Spike	Result 1180 1209 MSD	Qualifier	mg/Kg mg/Kg		115 119 CI	Prep Ty %Rec Limits 70 - 130 70 - 130 70 - 130	ble ID: Spe: Tot Batch: &	al/I 518 SW al/I 518 R
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4558 Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics	Sample Result <49.9 <49.9 MS %Recovery 137 105 -1 MSD Sample Result	Qualifier U MS Qualifier S1+ Sample Qualifier U	Added 997 997 <u>Limits</u> 70 - 130 70 - 130 70 - 130	Result 1180 1209 MSD Result	Qualifier	mg/Kg mg/Kg Unit		115 119 CI %Rec	Prep Ty %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	ble ID: { pe: Tot atch: { 	al// 518 SW al// 518
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4558 Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Sample Result <49.9 <49.9 <i>MS</i> <i>%Recovery</i> 137 105 -1 MSD Sample Result <49.9	Qualifier U MS Qualifier S1+ Sample Qualifier U	Added 997 997 <u>Limits</u> 70 - 130 70 - 130 70 - 130 Spike Added 999	Result 1180 1209 MSD Result 1166	Qualifier	mg/Kg mg/Kg Unit mg/Kg		115 119 CI <u>%Rec</u> 113	Prep Ty Prep E %Rec Limits 70 - 130 70 - 130 70 - 130 ient Samp Prep Ty Prep E %Rec Limits 70 - 130	ble ID: \$ pe: Tot Batch: {	al// 518 SW al// 518
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4558 Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Sample Result <49.9 <49.9 <i>MS</i> <i>%Recovery</i> 137 105 -1 MSD Sample Result <49.9	Qualifier U MS Qualifier S1+ Sample Qualifier U U	Added 997 997 <u>Limits</u> 70 - 130 70 - 130 70 - 130 Spike Added 999	Result 1180 1209 MSD Result 1166	Qualifier	mg/Kg mg/Kg Unit mg/Kg		115 119 CI <u>%Rec</u> 113	Prep Ty Prep E %Rec Limits 70 - 130 70 - 130 70 - 130 ient Samp Prep Ty Prep E %Rec Limits 70 - 130	ble ID: \$ pe: Tot Batch: {	al// 518
Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4558 Matrix: Solid Analysis Batch: 51822 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Sample Result <49.9 <49.9 <i>MS</i> %Recovery 137 105 -1 MSD Sample Result <49.9 <49.9 <i>MSD</i> %Recovery	Qualifier U MS Qualifier S1+ Sample Qualifier U U	Added 997 997 <u>Limits</u> 70 - 130 70 - 130 70 - 130 Spike Added 999	Result 1180 1209 MSD Result 1166	Qualifier	mg/Kg mg/Kg Unit mg/Kg		115 119 CI <u>%Rec</u> 113	Prep Ty Prep E %Rec Limits 70 - 130 70 - 130 70 - 130 ient Samp Prep Ty Prep E %Rec Limits 70 - 130	ble ID: \$ pe: Tot Batch: {	al/ 518 SW al/

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QC Sample Results

Client: Ensolum Project/Site: JRU 17 CTB

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

Lab Sample ID: MB 880-5203	30/1-A						(Client Sam	ple ID: Metho	od Bla	ank
Matrix: Solid									Prep Type:	Total/	/N/
Analysis Batch: 52001									Prep Batc	h: 52	030
	7	AB MB									
Analyte	Res	ult Qualifier	RL		Unit		D	Prepared	Analyzed	Dil	Fa
Gasoline Range Organics	<50	0.0 U	50.0		mg/K	g	- (04/26/23 08:00	04/26/23 08:12	2	
(GRO)-C6-C10	_									_	
Diesel Range Organics (Over C10-C28)	<50).0 U	50.0		mg/K	g	(04/26/23 08:00	04/26/23 08:12	2	
Oll Range Organics (Over C28-C36)	<50	0.0 U	50.0		mg/K	g	(04/26/23 08:00	04/26/23 08:12	2	
	I	NB MB									
Surrogate	%Recove	ery Qualifier	Limits				_	Prepared	Analyzed	Dil	l Fa
1-Chlorooctane		99	70 - 130				(04/26/23 08:00	04/26/23 08:1	2	
o-Terphenyl		99	70 - 130				(04/26/23 08:00	04/26/23 08:1	2	
Lab Sample ID: LCS 880-520)30/2-A					Clie	ent	Sample ID:	Lab Control	Sam	ıple
Matrix: Solid									Prep Type:	Total/	/N/
Analysis Batch: 52001									Prep Batc	h: 52	03(
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit		D %Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1018		mg/Kg		102	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	757.5		mg/Kg		76	70 - 130		
	LCS I	cs									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	74		70 - 130								
o-Terphenyl	71		70 - 130								
Lab Sample ID: LCSD 880-52	2030/3-A				c	lient S	amı	ole ID: Lab	Control San	ם פומו	Jur
Matrix: Solid									Prep Type:		
Analysis Batch: 52001									Prep Batc		
· ····· , · · · · · · · · · · · · · · · ·											
			Spike	LCSD	LCSD				%Rec		RPL
Analyte			Spike Added	-	LCSD Qualifier	Unit		D %Rec		F	
			•	-				<u>D</u> <u>%Rec</u>		F	_imi
Gasoline Range Organics			Added	Result		Unit mg/Kg			Limits RI	PD L	_imi
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over			Added	Result					Limits RI	PD L	_imi 20
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over			Added	Result 1100		mg/Kg		110	Limits RI 70 - 130	FD L 8	_imi 20
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	LCSD I		Added 1000	Result 1100		mg/Kg		110	Limits RI 70 - 130	FD L 8	_imi 20
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	%Recovery		Added 1000 1000 <i>Limits</i>	Result 1100		mg/Kg		110	Limits RI 70 - 130	FD L 8	_imi 20
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane	%Recovery 74	Qualifier	Added 1000 1000 Limits 70 - 130	Result 1100		mg/Kg		110	Limits RI 70 - 130	FD L 8	RPD _imi 20 20
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl	%Recovery	Qualifier	Added 1000 1000 <i>Limits</i>	Result 1100		mg/Kg		110	Limits RI 70 - 130	FD L 8	_imi 20
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27622-A	% Recovery 74 69 \$	Qualifier	Added 1000 1000 Limits 70 - 130	Result 1100		mg/Kg		<u>110</u> 78	Limits RI 70 - 130	F PD L 8 4	<u>-imi</u> 20 20
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27622-A Matrix: Solid	% Recovery 74 69 \$	Qualifier	Added 1000 1000 Limits 70 - 130	Result 1100		mg/Kg		<u>110</u> 78	Limits RI 70 - 130 70 - 130	FID 8 4 rix Sp Total/	Limi 20 20 Dike /NA
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27622-A Matrix: Solid	% Recovery 74 69 \$	Qualifier	Added 1000 1000 Limits 70 - 130	Result 1100	Qualifier	mg/Kg		<u>110</u> 78	Limits RI 70 - 130 70 - 130 nple ID: Matu Prep Type:	FID 8 4 rix Sp Total/	Limi 20 20 Dike /NA
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27622-A Matrix: Solid Analysis Batch: 52001	%Recovery 6 74 69 5 A-1-I MS Sample 5 Result 6	Qualifier S1- Sample Qualifier	Added 1000	Result 1100 784.9 MS Result	Qualifier MS Qualifier	mg/Kg		<u>110</u> 78	Limits RI 70 - 130 70 - 130 70 - 130 Prep Type: Prep Batc	FID 8 4 rix Sp Total/	Limi 20 20 Dike /NA
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane	%Recovery 6 74 69 5 A-1-I MS Sample 5	Qualifier S1- Sample Qualifier	Added 1000 1000 <i>Limits</i> 70 - 130 70 - 130 Spike	Result 1100 784.9 MS	Qualifier MS Qualifier	mg/Kg mg/Kg			Limits RI 70 - 130 70 - 130	FID 8 4 rix Sp Total/	Limi 20 20 Dike /NA

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QC Sample Results

Job ID: 890-4558-1 SDG: 03C1558135

Prep Batch: 52030

Client Sample ID: Matrix Spike Duplicate

Client: Ensolum Project/Site: JRU 17 CTB

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

Lab Sample ID: 880-27622-A-1-I MS **Matrix: Solid** Analysis Batch: 52001

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	80		70 - 130

Lab Sample ID: 880-27622-A-1-J MSD Matrix: Solid

Matrix: Solid Analysis Batch: 52001							Ľ.		Prep Ty Prep E		
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	676.6	F1	mg/Kg		68	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	636.3	F1	mg/Kg		61	70 - 130	6	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	79		70 - 130								
o-Terphenyl	75		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-51841/1-A Matrix: Solid							CI	ier	nt Sam	ple ID: N Prep T	lethod ype: So	
Analysis Batch: 51873												
	MB	MB										
Analyte	Result	Qualifier		RL	Unit		D	Pre	epared	Analy	zed	Dil Fac
Chloride	<5.00	U		5.00	mg/K	g				04/24/23	13:25	1
						Clie	ent Sa	am	ple ID	: Lab Co	ntrol Sa	ample
Matrix: Solid										Prep T	ype: So	oluble
Analysis Batch: 51873												
· ···· , ··· · ··· · · · · · · · · · · · · · ·			Spike	LCS	LCS					%Rec		
Analyte			Added	Result	Qualifier	Unit	D)	%Rec	Limits		
			050	242.0		mg/Kg			97	90 - 110		
Chloride			250	242.0		iiig/itg			51	00-110		
 Lab Sample ID: LCSD 880-51841/3-	A		250	242.0		0 0	ample	e II		Control		
Lab Sample ID: LCSD 880-51841/3- Matrix: Solid	A		250	242.0		0 0	ample	e II		Control	Sample ype: So	
 Lab Sample ID: LCSD 880-51841/3-	A		Spike			0 0	amplo	e I		Control		
Lab Sample ID: LCSD 880-51841/3- Matrix: Solid	A			LCSD	c	0 0	ample D			Control Prep T		oluble
Lab Sample ID: LCSD 880-51841/3- Matrix: Solid Analysis Batch: 51873	A 		Spike	LCSD	C LCSD Qualifier	Client S			D: Lab	Control Prep T %Rec	ype: So	RPD
Lab Sample ID: LCSD 880-51841/3- Matrix: Solid Analysis Batch: 51873 Analyte Chloride	A 		Spike Added	LCSD Result	C LCSD Qualifier	Unit			D: Lab	Control Prep T %Rec Limits 90 - 110	ype: So 	RPD Limit 20
Lab Sample ID: LCSD 880-51841/3- Matrix: Solid Analysis Batch: 51873 Analyte	A 		Spike Added	LCSD Result	C LCSD Qualifier	Unit			D: Lab	Control Prep T %Rec Limits 90 - 110	RPD 1 ple ID:	RPD Limit 20
Lab Sample ID: LCSD 880-51841/3- Matrix: Solid Analysis Batch: 51873 Analyte Chloride Lab Sample ID: 890-4558-1 MS Matrix: Solid	A		Spike Added	LCSD Result	C LCSD Qualifier	Unit			D: Lab	Control Prep T %Rec Limits 90 - 110	ype: So 	RPD Limit 20
Lab Sample ID: LCSD 880-51841/3- Matrix: Solid Analysis Batch: 51873 Analyte Chloride Lab Sample ID: 890-4558-1 MS Matrix: Solid Analysis Batch: 51873	A 	nple	Spike Added	LCSD Result 240.1	C LCSD Qualifier	Unit			D: Lab	Control Prep T %Rec Limits 90 - 110	RPD 1 ple ID:	RPD Limit 20
Lab Sample ID: LCSD 880-51841/3- Matrix: Solid Analysis Batch: 51873 Analyte Chloride Lab Sample ID: 890-4558-1 MS Matrix: Solid Analysis Batch: 51873		•	Spike Added 250	LCSD Result 240.1	LCSD Qualifier	Unit) '	D: Lab	Control Prep T %Rec Limits 90 - 110 ent Sam Prep T	RPD 1 ple ID:	RPD Limit 20

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Client: Ensolum

Project/Site: JRU 17 CTB

QC Sample Results

Job ID: 890-4558-1 SDG: 03C1558135

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4558- Matrix: Solid Analysis Batch: 51873	I MSD							CI	ient Samp Prep Ty		
Analysis Datch. 51075	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	•	Qualifier	Added	_	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	226		252	484.4		mg/Kg		103	90 - 110	1	20

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Client: Ensolum Project/Site: JRU 17 CTB

GC VOA

Analysis Batch: 51793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4558-1	SW01	Total/NA	Solid	8021B	51796
890-4558-2	SW02	Total/NA	Solid	8021B	51796
890-4558-3	SW03	Total/NA	Solid	8021B	51796
890-4558-4	SW04	Total/NA	Solid	8021B	51796
890-4558-5	SW05	Total/NA	Solid	8021B	51796
890-4558-6	SW06	Total/NA	Solid	8021B	51796
890-4558-7	FS01	Total/NA	Solid	8021B	51796
890-4558-8	FS02	Total/NA	Solid	8021B	51796
890-4558-9	FS03	Total/NA	Solid	8021B	51796
890-4558-10	FS04	Total/NA	Solid	8021B	51796
MB 880-51796/5-A	Method Blank	Total/NA	Solid	8021B	51796
LCS 880-51796/1-A	Lab Control Sample	Total/NA	Solid	8021B	51796
LCSD 880-51796/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	51796
890-4558-1 MS	SW01	Total/NA	Solid	8021B	51796
890-4558-1 MSD	SW01	Total/NA	Solid	8021B	51796
_					

Prep Batch: 51796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4558-1	SW01	Total/NA	Solid	5035	
890-4558-2	SW02	Total/NA	Solid	5035	
890-4558-3	SW03	Total/NA	Solid	5035	
890-4558-4	SW04	Total/NA	Solid	5035	
890-4558-5	SW05	Total/NA	Solid	5035	
890-4558-6	SW06	Total/NA	Solid	5035	
890-4558-7	FS01	Total/NA	Solid	5035	
890-4558-8	FS02	Total/NA	Solid	5035	
890-4558-9	FS03	Total/NA	Solid	5035	
890-4558-10	FS04	Total/NA	Solid	5035	
MB 880-51796/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-51796/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-51796/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4558-1 MS	SW01	Total/NA	Solid	5035	
890-4558-1 MSD	SW01	Total/NA	Solid	5035	

Analysis Batch: 51872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4558-1	SW01	Total/NA	Solid	Total BTEX	
890-4558-2	SW02	Total/NA	Solid	Total BTEX	
890-4558-3	SW03	Total/NA	Solid	Total BTEX	
890-4558-4	SW04	Total/NA	Solid	Total BTEX	
890-4558-5	SW05	Total/NA	Solid	Total BTEX	
890-4558-6	SW06	Total/NA	Solid	Total BTEX	
890-4558-7	FS01	Total/NA	Solid	Total BTEX	
890-4558-8	FS02	Total/NA	Solid	Total BTEX	
890-4558-9	FS03	Total/NA	Solid	Total BTEX	
890-4558-10	FS04	Total/NA	Solid	Total BTEX	

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Client: Ensolum Project/Site: JRU 17 CTB

GC Semi VOA

Analysis Batch: 51822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4558-1	SW01	Total/NA	Solid	8015B NM	51837
890-4558-2	SW02	Total/NA	Solid	8015B NM	51837
890-4558-3	SW03	Total/NA	Solid	8015B NM	51837
890-4558-4	SW04	Total/NA	Solid	8015B NM	51837
890-4558-5	SW05	Total/NA	Solid	8015B NM	51837
890-4558-7	FS01	Total/NA	Solid	8015B NM	51837
890-4558-8	FS02	Total/NA	Solid	8015B NM	51837
890-4558-9	FS03	Total/NA	Solid	8015B NM	51837
890-4558-10	FS04	Total/NA	Solid	8015B NM	51837
MB 880-51837/1-A	Method Blank	Total/NA	Solid	8015B NM	51837
LCS 880-51837/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	51837
LCSD 880-51837/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	51837
890-4558-1 MS	SW01	Total/NA	Solid	8015B NM	51837
890-4558-1 MSD	SW01	Total/NA	Solid	8015B NM	51837

Prep Batch: 51837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4558-1	SW01	Total/NA	Solid	8015NM Prep	
890-4558-2	SW02	Total/NA	Solid	8015NM Prep	
890-4558-3	SW03	Total/NA	Solid	8015NM Prep	
890-4558-4	SW04	Total/NA	Solid	8015NM Prep	
890-4558-5	SW05	Total/NA	Solid	8015NM Prep	
890-4558-7	FS01	Total/NA	Solid	8015NM Prep	
890-4558-8	FS02	Total/NA	Solid	8015NM Prep	
890-4558-9	FS03	Total/NA	Solid	8015NM Prep	
890-4558-10	FS04	Total/NA	Solid	8015NM Prep	
MB 880-51837/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-51837/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-51837/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4558-1 MS	SW01	Total/NA	Solid	8015NM Prep	
890-4558-1 MSD	SW01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 51875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4558-1	SW01	Total/NA	Solid	8015 NM	
890-4558-2	SW02	Total/NA	Solid	8015 NM	
890-4558-3	SW03	Total/NA	Solid	8015 NM	
890-4558-4	SW04	Total/NA	Solid	8015 NM	
890-4558-5	SW05	Total/NA	Solid	8015 NM	
890-4558-6	SW06	Total/NA	Solid	8015 NM	
890-4558-7	FS01	Total/NA	Solid	8015 NM	
890-4558-8	FS02	Total/NA	Solid	8015 NM	
890-4558-9	FS03	Total/NA	Solid	8015 NM	
890-4558-10	FS04	Total/NA	Solid	8015 NM	

Analysis Batch: 52001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4558-6	SW06	Total/NA	Solid	8015B NM	52030
MB 880-52030/1-A	Method Blank	Total/NA	Solid	8015B NM	52030
LCS 880-52030/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	52030
LCSD 880-52030/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	52030

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Job ID: 890-4558-1 SDG: 03C1558135

Client: Ensolum Project/Site: JRU 17 CTB

GC Semi VOA (Continued)

Analysis Batch: 52001 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27622-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	52030
880-27622-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	52030
Prep Batch: 52030					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4558-6	SW06	Total/NA	Solid	8015NM Prep	
MB 880-52030/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-52030/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-52030/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-27622-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-27622-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 51841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4558-1	SW01	Soluble	Solid	DI Leach	
890-4558-2	SW02	Soluble	Solid	DI Leach	
890-4558-3	SW03	Soluble	Solid	DI Leach	
890-4558-4	SW04	Soluble	Solid	DI Leach	
890-4558-5	SW05	Soluble	Solid	DI Leach	
890-4558-6	SW06	Soluble	Solid	DI Leach	
890-4558-7	FS01	Soluble	Solid	DI Leach	
890-4558-8	FS02	Soluble	Solid	DI Leach	
890-4558-9	FS03	Soluble	Solid	DI Leach	
890-4558-10	FS04	Soluble	Solid	DI Leach	
MB 880-51841/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-51841/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-51841/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4558-1 MS	SW01	Soluble	Solid	DI Leach	
890-4558-1 MSD	SW01	Soluble	Solid	DI Leach	

Analysis Batch: 51873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4558-1	SW01	Soluble	Solid	300.0	51841
890-4558-2	SW02	Soluble	Solid	300.0	51841
890-4558-3	SW03	Soluble	Solid	300.0	51841
890-4558-4	SW04	Soluble	Solid	300.0	51841
890-4558-5	SW05	Soluble	Solid	300.0	51841
890-4558-6	SW06	Soluble	Solid	300.0	51841
890-4558-7	FS01	Soluble	Solid	300.0	51841
890-4558-8	FS02	Soluble	Solid	300.0	51841
890-4558-9	FS03	Soluble	Solid	300.0	51841
890-4558-10	FS04	Soluble	Solid	300.0	51841
MB 880-51841/1-A	Method Blank	Soluble	Solid	300.0	51841
LCS 880-51841/2-A	Lab Control Sample	Soluble	Solid	300.0	51841
LCSD 880-51841/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	51841
890-4558-1 MS	SW01	Soluble	Solid	300.0	51841
890-4558-1 MSD	SW01	Soluble	Solid	300.0	51841

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Lab Chronicle

Initial

Amount

5.02 g

5 mL

10.03 g

1 uL

4.97 g

50 mL

Batch

51796

51793

51872

51875

51837

51822

51841

51873

Number

Final

Amount

5 mL

5 mL

10 mL

1 uL

50 mL

50 mL

Dil

1

1

1

1

1

Factor

Run

Client: Ensolum Project/Site: JRU 17 CTB

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Soluble

Soluble

Client Sample ID: SW01 Date Collected: 04/20/23 12:50 Date Received: 04/21/23 08:20

Batch

Туре

Prep

Analysis

Analysis

Analysis

Analysis

Leach

Analysis

Prep

Batch

5035

8021B

Total BTEX

8015NM Prep

8015 NM

8015B NM

DI Leach

300.0

Method

Job ID: 890-4558-1 SDG: 03C1558135

Lab Sample ID: 890-4558-1

Prepared

or Analyzed

04/24/23 08:38

04/24/23 15:10 SM

04/24/23 16:21 SM

04/24/23 11:06 AJ

04/24/23 12:31 SM

04/24/23 11:16 KS

04/24/23 13:39 SMC

Matrix: Solid

Lab Sample ID: 890-4558-2 Matrix: Solid

Date Collected: 04/20/23 12:55 Date Received: 04/21/23 08:20

Client Sample ID: SW02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	51796	04/24/23 08:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 12:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51872	04/24/23 15:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			51875	04/24/23 16:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	51837	04/24/23 11:06	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51822	04/24/23 13:36	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	51841	04/24/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51873	04/24/23 13:52	SMC	EET MID

Client Sample ID: SW03 Date Collected: 04/20/23 14:40 Date Received: 04/21/23 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	51796	04/24/23 08:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 12:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51872	04/24/23 15:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			51875	04/24/23 16:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	51837	04/24/23 11:06	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51822	04/24/23 13:57	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	51841	04/24/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51873	04/24/23 13:57	SMC	EET MID

Client Sample ID: SW04 Date Collected: 04/20/23 14:45 Date Received: 04/21/23 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	51796	04/24/23 08:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 13:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51872	04/24/23 15:10	SM	EET MID

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Matrix: Solid

Analyst Lab MNR EET MID 04/24/23 12:11 MNR EET MID

Lab Sample ID: 890-4558-3 Matrix: Solid

Lab Sample ID: 890-4558-4

Released to Imaging: 11/6/2023 11:19:05 AM

Client: Ensolum Project/Site: JRU 17 CTB

Client Sample ID: SW04 Date Collected: 04/20/23 14:45 Date Received: 04/21/23 08:20

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 51875	Prepared or Analyzed 04/24/23 16:21	Analyst SM	Lab EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.04 g 1 uL	10 mL 1 uL	51837 51822	04/24/23 11:06 04/24/23 14:19	AJ SM	EET MID EET MID
Soluble Soluble	Leach Analysis	DI Leach 300.0		1	4.99 g 50 mL	50 mL 50 mL	51841 51873	04/24/23 11:16 04/24/23 14:01	KS SMC	EET MID EET MID

Client Sample ID: SW05 Date Collected: 04/20/23 13:00 Date Received: 04/21/23 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	51796	04/24/23 08:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 13:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51872	04/24/23 15:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			51875	04/24/23 16:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	51837	04/24/23 11:06	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51822	04/24/23 14:41	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	51841	04/24/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51873	04/24/23 14:06	SMC	EET MID

Client Sample ID: SW06

Date Collected: 04/20/23 13:05 Date Received: 04/21/23 08:20

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	51796	04/24/23 08:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 13:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51872	04/24/23 15:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			51875	04/24/23 16:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	52030	04/26/23 11:20	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52001	04/26/23 16:52	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	51841	04/24/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51873	04/24/23 14:20	SMC	EET MID

Client Sample ID: FS01 Date Collected: 04/20/23 14:50 Date Received: 04/21/23 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	51796	04/24/23 08:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 14:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51872	04/24/23 15:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			51875	04/24/23 16:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	51837		AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51822	04/24/23 15:52	SM	EET MID

Eurofins Carlsbad

Matrix: Solid

Job ID: 890-4558-1 SDG: 03C1558135

Lab Sample ID: 890-4558-4 Matrix: Solid

Lab Sample ID: 890-4558-5

Matrix: Solid

Lab Sample ID: 890-4558-7

Job ID: 890-4558-1 SDG: 03C1558135

Client Sample ID: FS01 Date Collected: 04/20/23 14:50 Date Received: 04/21/23 08:20

Project/Site: JRU 17 CTB

Client: Ensolum

Dress Trans	Batch	Batch Mathad	Dura	Dil	Initial Amount	Final	Batch	Prepared	Amelyet	Lab
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	51841	04/24/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51873	04/24/23 14:24	SMC	EET MID

Client Sample ID: FS02 Date Collected: 04/20/23 13:10 Date Received: 04/21/23 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	51796	04/24/23 08:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 14:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51872	04/24/23 15:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			51875	04/24/23 21:44	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	51837	04/24/23 11:06	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51822	04/24/23 16:14	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	51841	04/24/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51873	04/24/23 14:29	SMC	EET MID

Client Sample ID: FS03 Date Collected: 04/20/23 13:15 Date Received: 04/21/23 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	51796	04/24/23 08:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 14:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51872	04/24/23 15:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			51875	04/24/23 21:44	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	51837	04/24/23 11:06	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51822	04/24/23 16:36	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	51841	04/24/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51873	04/24/23 14:33	SMC	EET MID

Client Sample ID: FS04 Date Collected: 04/20/23 14:35 Date Received: 04/21/23 08:20

Lab Sample ID: 890-4558-10 Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	51796	04/24/23 08:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 15:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51872	04/24/23 21:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			51875	04/24/23 21:44	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	51837	04/24/23 11:06	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51822	04/24/23 16:59	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	51841	04/24/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51873	04/24/23 14:38	SMC	EET MID

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Lab Sample ID: 890-4558-7

Matrix: Solid

Matrix: Solid

Matrix: Solid

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Lab Sample ID: 890-4558-8

Lab Sample ID: 890-4558-9

Released t	o Imaging:	11/6/2023	11:19:05 AM
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Received by OCD: 6/9/2023 10:52:09 AM

Lab Chronicle

Client: Ensolum Project/Site: JRU 17 CTB

Laboratory References:

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

Job ID: 890-4558-1 SDG: 03C1558135

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum Project/Site: JRU 17 CTB Job ID: 890-4558-1 SDG: 03C1558135

Laboratory: Eurofins Midland

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

Authority	Pro	ogram	Identification Number	Expiration Date		
ēxas	NE	NELAP T104704400-22-2		06-30-23		
The following analyte	are included in this repo	rt but the laboratory is r	not certified by the governing authority.	This list may include analytes for which		
the agency does not c	•	rt, but the laboratory is i	lot optimed by the governing dutionly.			
• •	•	Matrix	Analyte			
the agency does not o	offer certification.		, , , , ,			

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Method Summary

Client: Ensolum Project/Site: JRU 17 CTB Job ID: 890-4558-1 SDG: 03C1558135

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: JRU 17 CTB

Job ID: 890-4558-1
SDG: 03C1558135

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4558-1	SW01	Solid	04/20/23 12:50	04/21/23 08:20	0-4'
890-4558-2	SW02	Solid	04/20/23 12:55	04/21/23 08:20	0-4'
890-4558-3	SW03	Solid	04/20/23 14:40	04/21/23 08:20	0-4'
890-4558-4	SW04	Solid	04/20/23 14:45	04/21/23 08:20	0-4'
890-4558-5	SW05	Solid	04/20/23 13:00	04/21/23 08:20	0-4'
890-4558-6	SW06	Solid	04/20/23 13:05	04/21/23 08:20	0-4'
890-4558-7	FS01	Solid	04/20/23 14:50	04/21/23 08:20	4' bgs
890-4558-8	FS02	Solid	04/20/23 13:10	04/21/23 08:20	4' bgs
890-4558-9	FS03	Solid	04/20/23 13:15	04/21/23 08:20	4' bgs
890-4558-10	FS04	Solid	04/20/23 14:35	04/21/23 08:20	4' bgs

nature) Date/Time		0	4-21-23 8	4	re Cul	L&C	And	ANON
	Received by: (Signature)	Relinquished by: (Signature)	Date/Time		Received by: (Signature)	Receiv	(Signature)	Relinquished by:
	control sly negotiated.	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 \$5.10 reach sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	fins Xenco, its affiliates and a ses incurred by the client if a urofins Xenco, but not anah	from client company to Euro sibility for any losses or expen r each sample submitted to E	ites a valid purchase orde all not assume any respon bject and a charge of \$5 fc	of samples constitu of samples and sha applied to each pro	nent and relinquishment be liable only for the cost charge of \$85.00 will be	ce: Signature of this docum rvice. Eurofins Xenco will I urofins Xenco. A minimum
Ag sittig ind si tri sittid viziti Hg: 1631 / 245.1 / 7470 / 7471	2		As Ba Be B Cd Ca b As Ba Be Cd Cr C	A Texas IT ALSD LP 6010 : 8RCRA St	8RCRA 13PPM TCLP/SPL	e analyzed	200.8 / 6020: nd Metal(s) to be a	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed
					- H - L - K	*		FSU4
					1315			Esos
maberta@ensolum					1310		2	ES02
)					1450			FSOI
AP1: 30.015.27789					1305		Q.	SMOD
1080921001					1300		0	SWDS
Cost Center?					1445		+	SW04
					1440		3	SW03
NAFP2226628060					1255		2	SWO
Incident #:			XXX	0-4 6 1		S 4/20/23		SWO
Sample Comments			BT Ch TF	Depth Grab/ # of Comp Cont	e Time ed Sampled	Matrix Date Sampled		Sample Identification
NaOH+Ascorbic Acid: SAPC			10	1.6	Corrected Temperature:	Correct		Total Containers:
Zn Acetate+NaOH: Zn		-	nie	1.00	Temperature Reading:	N/A Tempe	Yes No	Sample Custody Seals:
Na ₂ S ₂ O ₃ : NaSO ₃	y	890-4558 Chain of Custody	ed e	(0.0) Pa	Correction Factor:	N/A Correct	Yes No (Cooler Custody Seals:
NaHSO 4: NABIS			22	ANNOD]	Thermometer ID:		-	Samples Received Intact:
H ₃ PO ₄ : HP				Yee No	Vo Wet Ice:	nk: (Yes)No	Temp Blank:	SAMPLE RECEIPT
H ₂ SO ₄ : H ₂ NaOH: Na					the lab, if received by 4:30pm	þ		
HCL: HC HNO 3; HN	-	-		ay received by	_	Roberts	Meredith	_
Cool: Cool MeOH: Me				24 hr	Due Date:	33576-103.81984	32.33576-	
None: NO DI Water: H ₂ O				Rush Code	Routine	8135	030155813	Project Number:
Preservative Codes		ANALYSIS REQUEST		Turn Around	Turn /	I CT B	JRU 17	Project Name:
ADaPT Other:	Deliverables: EDD		morrissey@ensolum.wm	tmorris	Email:	257.8307	337.25	Phone:
PST/UST TRRP Level IV	Reporting: Level II	OEC88 WN	Carlsbad	City, State ZIP:	060	NN	Cartsbad	City, State ZIP:
]	State of Project:	St.	3104 E.	Address:	Hwy	H'I Parks	3122 Nat.	Address:
Brownfields RRC Superfund	Program: UST/PST PRP	Energy	XTO	Company Name:		MLLLC	Ensolum	Company Name:
Work Order Comments	Work Ord		Garre	Bill to: (# different)		Morrisse	-Tacoma	Project Manager:
.com Page of	www.xenco.com		i si	HODDS, 1999 (a				
		TX (806) 794-1296	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	EL Paso, TX (9		0	Xenco	
No:	Work Order No:	o, TX (210) 509-3334	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Midland, TX (43	Testing	Environment Testing		
		TX (214) 902-0300	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300	Houston, TX				the eurofins

4/27/2023 (Rev. 1)

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Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

Login Number: 4558 List Number: 1 Creator: Stutzman, Amanda

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

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4558 List Number: 2 Creator: Rodriguez, Leticia

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

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

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Job Number: 890-4558-1 SDG Number: 03C1558135

List Source: Eurofins Midland

List Creation: 04/24/23 09:11 AM

Received by OCD: 6/9/2023 10:52:09 AM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 5/4/2023 7:48:15 PM

JOB DESCRIPTION

JRU 17 CTB SDG NUMBER 03E1558135

JOB NUMBER

890-4601-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information.

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

AMER

Generated 5/4/2023 7:48:15 PM

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

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	D: 6/9/2023 10:52:09 AM	Page 55 of
	Definitions/Glossary	
Client: Ensolui	n	Job ID: 890-4601-1
Project/Site: Jl	RU 17 CTB	SDG: 03E1558135
Qualifiers		
GC VOA		
Qualifier	Qualifier Description	
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	
F1	MS and/or MSD recovery exceeds control limits.	
S1-	Surrogate recovery exceeds control limits, low biased.	
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	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

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4

5

Job ID: 890-4601-1 SDG: 03E1558135

Job ID: 890-4601-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4601-1

Receipt

The sample was received on 5/1/2023 2:54 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 1.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW07 (890-4601-1).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: (MB 880-52456/5-A), (880-27874-A-1-C) and (880-27874-A-1-B MSD). 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: (880-27868-A-1-B MS) and (880-27868-A-1-C MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-27868-A-1-B MS) and (880-27868-A-1-C MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Job ID: 890-4601-1 SDG: 03E1558135

Client Sample ID: SW07

Date Collected: 05/01/23 13:15 Date Received: 05/01/23 14:54

Project/Site: JRU 17 CTB

Client: Ensolum

Lab Sample ID: 890-4601-1

Matrix: Solid

Date Received: 05/01/23 14:54 Sample Depth: 0-4'									4
_ Method: SW846 8021B - Volati	le Organic Comp	ounds (GC)						5
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200	mg/Kg		05/03/23 08:48	05/03/23 13:01	1	
Toluene	<0.00200	U	0.00200	mg/Kg		05/03/23 08:48	05/03/23 13:01	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/03/23 08:48	05/03/23 13:01	1	
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		05/03/23 08:48	05/03/23 13:01	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/03/23 08:48	05/03/23 13:01	1	9
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		05/03/23 08:48	05/03/23 13:01	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	g
4-Bromofluorobenzene (Surr)	95		70 - 130			05/03/23 08:48	05/03/23 13:01	1	
1,4-Difluorobenzene (Surr)	77		70 - 130			05/03/23 08:48	05/03/23 13:01	1	
_									
Method: TAL SOP Total BTEX									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00401	U	0.00401	mg/Kg			05/03/23 14:54	1	
- Method: SW846 8015 NM - Die	sel Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.0	U	50.0	mg/Kg			05/04/23 14:01	1	
_ Method: SW846 8015B NM - D	iesel Range Orga	nics (DRO)	(GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		05/03/23 10:00	05/03/23 20:22	1	
(GRO)-C6-C10									
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/03/23 10:00	05/03/23 20:22	1	

C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/03/23 10:00	05/03/23 20:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			05/03/23 10:00	05/03/23 20:22	1
o-Terphenyl	71		70 - 130			05/03/23 10:00	05/03/23 20:22	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	318		4.98	mg/Kg			05/03/23 20:34	1

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Surrogate Summary

Client: Ensolum Project/Site: JRU 17 CTB Job ID: 890-4601-1

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Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		5
880-27874-A-1-A MS	Matrix Spike	115	107		
880-27874-A-1-B MSD	Matrix Spike Duplicate	134 S1+	95		6
890-4601-1	SW07	95	77		
LCS 880-52456/1-A	Lab Control Sample	106	105		
LCSD 880-52456/2-A	Lab Control Sample Dup	115	107		
MB 880-52456/5-A	Method Blank	65 S1-	92		8
Surrogate Legend					
BFB = 4-Bromofluorober	nzene (Surr)				9

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits) 1CO1 OTPH1 (70-130) Lab Sample ID **Client Sample ID** (70-130) 880-27868-A-1-B MS Matrix Spike 91 64 S1-880-27868-A-1-C MSD Matrix Spike Duplicate 89 63 S1-890-4601-1 SW07 93 71 LCS 880-52399/2-A Lab Control Sample 105 78 LCSD 880-52399/3-A Lab Control Sample Dup 98 73 MB 880-52399/1-A 97 Method Blank 113

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

SDG: 03E1558135

Prep Type: Total/NA

QC Sample Results

Client: Ensolum Project/Site: JRU 17 CTB

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-52456/ Matrix: Solid Analysis Batch: 52441		МВ				Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	Total/NA
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/03/23 08:48	05/03/23 10:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/03/23 08:48	05/03/23 10:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/03/23 08:48	05/03/23 10:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/03/23 08:48	05/03/23 10:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/03/23 08:48	05/03/23 10:57	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/03/23 08:48	05/03/23 10:57	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65	S1-	70 - 130			05/03/23 08:48	05/03/23 10:57	1
1,4-Difluorobenzene (Surr)	92		70 - 130			05/03/23 08:48	05/03/23 10:57	1

Lab Sample ID: LCS 880-52456/1-A Matrix: Solid

Analysis Batch: 52441

	Spike	LCS LC	cs			%Rec	
Analyte	Added	Result Qu	ualifier Unit	D	%Rec	Limits	
Benzene	0.100	0.1273	mg/Kg		127	70 - 130	
Toluene	0.100	0.1101	mg/Kg		110	70 - 130	
Ethylbenzene	0.100	0.1164	mg/Kg		116	70 - 130	
m-Xylene & p-Xylene	0.200	0.2368	mg/Kg		118	70 - 130	
o-Xylene	0.100	0.1223	mg/Kg		122	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-52456/2-A

Matrix: Solid

Analysis Batch: 52441							Prep	Batch:	52456
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1145		mg/Kg		115	70 - 130	11	35
Toluene	0.100	0.09999		mg/Kg		100	70 - 130	10	35
Ethylbenzene	0.100	0.1112		mg/Kg		111	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2285		mg/Kg		114	70 - 130	4	35
o-Xylene	0.100	0.1164		mg/Kg		116	70 - 130	5	35

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

Lab Sample ID: 880-27874-A-1-A MS

Matrix: Solid aluaia Batabi 52444

Analysis Batch: 52441									Prep	Batch: 52456
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00198	U	0.0998	0.08555		mg/Kg		86	70 - 130	
Toluene	<0.00198	U	0.0998	0.07989		mg/Kg		79	70 - 130	

Eurofins Carlsbad

Prep Type: Total/NA

Client Sample ID: Matrix Spike

SDG: 03E1558135

Prep Batch: 52456

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

5 6 7 8 9 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Lab Sample ID: 880-27874-A-1-A MS

QC Sample Results

MS MS

0.08841

0.1810

0.09230

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

Spike

Added

0.0998

0.200

0.0998

Limits 70 - 130

70 - 130

70 - 130

Project/Site: JRU 17 CTB

Analysis Batch: 52441

Matrix: Solid

Analyte

o-Xylene

Surrogate

Ethylbenzene

m-Xylene & p-Xylene

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

Sample Sample

<0.00198

<0.00396 U

<0.00198 U

115

107

95

%Recovery

Result Qualifier

U

MS MS

Qualifier

Prep Type: Total/NA

Prep Batch: 52456

Client Sample ID: Matrix Spike

%Rec

Limits

70 - 130

70 - 130

70 - 130

%Rec

89

91

92

D

7

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

Client Sample ID: Method Blank

05/03/23 08:57

Client Sample ID: Lab Control Sample

05/02/23 18:00

Prep Type: Total/NA Prep Batch: 52399

Matrix: Solid Analysis Batch: 52441

Lab Sample ID: 880-27874-A-1-B MSD

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Analysis Batch: 52441									Prep	Batch:	52456
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00198	U	0.100	0.07581		mg/Kg		76	70 - 130	12	35
Toluene	<0.00198	U	0.100	0.08479		mg/Kg		84	70 - 130	6	35
Ethylbenzene	<0.00198	U	0.100	0.1109		mg/Kg		110	70 - 130	23	35
m-Xylene & p-Xylene	<0.00396	U	0.201	0.2153		mg/Kg		107	70 - 130	17	35
o-Xylene	<0.00198	U	0.100	0.1085		mg/Kg		108	70 - 130	16	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130								

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

Lab Sample ID: MB 880-52399/1-A
Matrix: Solid
Analysis Batch: 52451

-	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		05/02/23 18:00	05/03/23 08:57	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		05/02/23 18:00	05/03/23 08:57	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/02/23 18:00	05/03/23 08:57	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			05/02/23 18:00	05/03/23 08:57	1

70 - 130

o-Terphenyl	97
Lab Sample ID: LCS 880-52399/2-A	

Matrix: Solid alvaia Datah E04E4

Analysis Batch: 52451							Prep	Batch: 52399
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1146		mg/Kg		115	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1180		mg/Kg		118	70 - 130	
C10-C28)								

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Prep Type: Total/NA

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QC Sample Results

Job ID: 890-4601-1 SDG: 03E1558135

Client: Ensolum Project/Site: JRU 17 CTB

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

Lab Sample ID: LCS 880-52	399/2-A						Client	Sample	D: Lab Co		
Matrix: Solid									Prep T	ype: Tot	al/N
Analysis Batch: 52451									Prep	Batch:	5239
	105	LCS									
Surrogate	%Recovery		Limits								
1-Chlorooctane		quamer	70 - 130								
o-Terphenyl	78		70 - 130								
	10		10 - 100								
Lab Sample ID: LCSD 880-5	2399/3-A					Clier	nt Sam	ple ID:	Lab Contro	Sample	e Du
Matrix: Solid								· · · ·		· ype: Tot	
Analysis Batch: 52451										Batch:	
			Spike	LCSD	LCSD				%Rec		RP
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lim
Gasoline Range Organics			1000	1035		mg/Kg		104	70 - 130	10	2
(GRO)-C6-C10											
Diesel Range Organics (Over			1000	1062		mg/Kg		106	70 - 130	11	2
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	73		70 - 130								
Matrix: Solid Analysis Batch: 52451									Prep	ype: Tot Batch:	
		Sample	Spike	MS					%Rec		
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	757.2		mg/Kg		74	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	587.8	F1	mg/Kg		56	70 - 130		
	MS	MS									
Surrogate			Limits								
Surrogate 1-Chlorooctane	%Recovery		Limits								
1-Chlorooctane	% <i>Recovery</i> 91	Qualifier	70 - 130								
1-Chlorooctane	% <i>Recovery</i> 91										
1-Chlorooctane o-Terphenyl	% Recovery 91 64	Qualifier	70 - 130			CI	ient Sa	ample IC): Matrix Sp	oike Dup	licat
1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27868-4	% Recovery 91 64	Qualifier	70 - 130			СІ	ient Sa	ample IC): Matrix Sp Prep T		
1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27868-4 Matrix: Solid	% Recovery 91 64	Qualifier	70 - 130			CI	ient Sa	ample IE	Prep T	ype: Tot	al/N
1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27868-4	<u>91</u> 91 64 A-1-C MSD	Qualifier	70 - 130	MSD	MSD	CI	ient Sa	ample IC	Prep T		al/N/ 5239
1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27868-4 Matrix: Solid		Qualifier S1-	70 - 130 70 - 130		MSD Qualifier	CI Unit	ient Sa	ample IE %Rec	Prep T Prep	ype: Tot	al/N/
1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27868-A Matrix: Solid Analysis Batch: 52451		Qualifier S1- Sample Qualifier	70 - 130 70 - 130 Spike					-	Prep T Prep %Rec	ype: Tot Batch: {	al/N 5239 RP Lim
1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27868-A Matrix: Solid Analysis Batch: 52451 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over		Qualifier S1- Sample Qualifier U	70 - 130 70 - 130 Spike Added	Result	Qualifier	Unit		%Rec	Prep T Prep %Rec Limits	Batch:	al/N 5239 RP Lim
1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27868-A Matrix: Solid Analysis Batch: 52451 Analyte Gasoline Range Organics (GRO)-C6-C10	%Recovery 91 64 A-1-C MSD Sample 	Qualifier S1- Sample Qualifier U U F1	70 - 130 70 - 130 Spike Added 1000	Result 749.0	Qualifier	- <mark>Unit</mark> mg/Kg		%Rec 73	Prep T Prep %Rec Limits 70 - 130	ype: Tot Batch: 4 RPD 1	al/N 5239 RP Lim 2
1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27868-4 Matrix: Solid Analysis Batch: 52451 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	%Recovery 91 64 A-1-C MSD Sample Result <49.9 <49.9 MSD	Qualifier S1- Sample Qualifier U U F1 MSD	70 - 130 70 - 130 Spike Added 1000	Result 749.0	Qualifier	- <mark>Unit</mark> mg/Kg		%Rec 73	Prep T Prep %Rec Limits 70 - 130	ype: Tot Batch: 4 RPD 1	al/N 5239 RP Lim 2
1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27868-4 Matrix: Solid Analysis Batch: 52451 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	%Recovery 91 64 A-1-C MSD Sample Result <49.9 <49.9 <49.9 %Recovery	Qualifier S1- Sample Qualifier U U F1 MSD	70 - 130 70 - 130 Spike Added 1000 1000	Result 749.0	Qualifier	- <mark>Unit</mark> mg/Kg		%Rec 73	Prep T Prep %Rec Limits 70 - 130	ype: Tot Batch: 4 RPD 1	al/N/ 5239 RP
1-Chlorooctane o-Terphenyl Lab Sample ID: 880-27868-4 Matrix: Solid Analysis Batch: 52451 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)		Qualifier S1- Sample Qualifier U U F1 MSD	70 - 130 70 - 130 Spike Added 1000	Result 749.0	Qualifier	- <mark>Unit</mark> mg/Kg		%Rec 73	Prep T Prep %Rec Limits 70 - 130	ype: Tot Batch: 4 RPD 1	al/N 5239 RP Lim

Client: Ensolum

Project/Site: JRU 17 CTB

QC Sample Results

Job ID: 890-4601-1 SDG: 03E1558135

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-52504/1-A Matrix: Solid										Client	t Sample ID:		
											Prep	o Type: S	οιαριέ
Analysis Batch: 52557		МВ	MD										
Analyte	P		Qualifier		RL		Unit		D	Prepared	Analy	/zod	Dil Fac
Chloride		<5.00			5.00		mg/K	a		riepareu	05/03/23	·	1
		-0.00	0		0.00		mg/it	9			00/00/20	5 15.00	
Lab Sample ID: LCS 880-52504/2-A									Clie	nt Samp	ole ID: Lab C	Control S	ample
Matrix: Solid											Prep	o Type: S	oluble
Analysis Batch: 52557													
				Spike		LCS	LCS				%Rec		
Analyte				Added		Result	Qualifier	Unit					
Chloride				250		230.9		mg/Kg		92	90 - 110		
Lab Sample ID: LCSD 880-52504/3	-A							CI	ent Sa	mple ID	: Lab Contr	ol Sampl	e Dur
Matrix: Solid												o Type: S	
Analysis Batch: 52557													
-				Spike		LCSD	LCSD				%Rec		RPD
Analyte				Added		Result	Qualifier	Unit	[) %Rec	Limits	RPD	Limit
Chloride				250		232.6		mg/Kg		93	90 - 110	1	20
Lab Sample ID: 890-4601-1 MS											Client Sa	mple ID:	SW07
Matrix: Solid												Type: S	
Analysis Batch: 52557													
Analysis Dalun, 52557													
Analysis Batch. 52557	Sample	Sam	ple	Spike		MS	MS				%Rec		
	Sample Result			Spike Added			MS Qualifier	Unit	[) %Rec			
Analyte				•				Unit mg/Kg	[0 %Rec 91	Limits	- <u> </u>	
Analyte Chloride	Result			Added		Result			[Limits 90 - 110	mple ID:	SW07
Analyte Chloride Lab Sample ID: 890-4601-1 MSD	Result			Added		Result			<u>[</u>		Limits 90 - 110		
Analyte Chloride Lab Sample ID: 890-4601-1 MSD Matrix: Solid	Result			Added		Result			<u>[</u>		Limits 90 - 110	mple ID: o Type: S	
Analyte Chloride	Result	Qual	ifier	Added		Result	Qualifier		<u>[</u>		Limits 90 - 110		
Analyte Chloride Lab Sample ID: 890-4601-1 MSD Matrix: Solid	Result 318	<u>Qual</u> Sam	ifier	Added 249		Result 543.5 MSD	Qualifier		[91	Limits 90 - 110 Client Sa Prep %Rec		oluble

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Client: Ensolum Project/Site: JRU 17 CTB

SDG: 03E1558135

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GC VOA

Analysis Batch: 52441

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4601-1	SW07	Total/NA	Solid	8021B	52456
MB 880-52456/5-A	Method Blank	Total/NA	Solid	8021B	52456
LCS 880-52456/1-A	Lab Control Sample	Total/NA	Solid	8021B	52456
LCSD 880-52456/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	52456
880-27874-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	52456
880-27874-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	52456
rep Batch: 52456					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4601-1	SW07	Total/NA	Solid	5035	
MB 880-52456/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-52456/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-52456/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-27874-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-27874-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
analysis Batch: 52548					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4601-1	SW07	Total/NA	Solid	Total BTEX	

Prep Batch: 52399

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4601-1	SW07	Total/NA	Solid	8015NM Prep	
MB 880-52399/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-52399/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-52399/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-27868-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-27868-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 52451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4601-1	SW07	Total/NA	Solid	8015B NM	52399
MB 880-52399/1-A	Method Blank	Total/NA	Solid	8015B NM	52399
LCS 880-52399/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	52399
LCSD 880-52399/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	52399
880-27868-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	52399
880-27868-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	52399

ab Sample ID Client Sample ID Prep Type Method Prep Batch Matrix SW07 890-4601-1 Total/NA Solid 8015 NM

HPLC/IC

Leach Batch: 52504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4601-1	SW07	Soluble	Solid	DI Leach	
MB 880-52504/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-52504/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-52504/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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52504

Job ID: 890-4601-1 SDG: 03E1558135

Project/Site: JRU 17 CTB HPLC/IC (Continued)

Client: Ensolum

890-4601-1 MSD

SW07

Leach Batch: 52504 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4601-1 MS	SW07	Soluble	Solid	DI Leach	
890-4601-1 MSD	SW07	Soluble	Solid	DI Leach	
nalysis Batch: 52557					
·	Client Sample ID	Prep Type	Matrix Solid	Method 300.0	Prep Batch
890-4601-1	Client Sample ID SW07 Method Blank	Prep Type Soluble Soluble	Matrix Solid Solid	Method 300.0 300.0	Prep Batc 5250- 5250-
890-4601-1 MB 880-52504/1-A	SW07	Soluble	Solid	300.0	5250
Lab Sample ID 890-4601-1 MB 880-52504/1-A LCS 880-52504/2-A LCSD 880-52504/3-A	SW07 Method Blank	Soluble	Solid Solid	300.0 300.0	5250 5250

Soluble

Solid

300.0

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Client Sample ID: SW07 Date Collected: 05/01/23 13:15 Date Received: 05/01/23 14:54

Job ID: 890-4601-1 SDG: 03E1558135

Lab Sample ID: 890-4601-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	52456	05/03/23 08:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52441	05/03/23 13:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52548	05/03/23 14:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			52624	05/04/23 14:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	52399	05/03/23 10:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52451	05/03/23 20:22	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	52504	05/03/23 12:48	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52557	05/03/23 20:34	SMC	EET MID

Laboratory References:

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

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Accreditation/Certification Summary

Client: Ensolum Project/Site: JRU 17 CTB

Laboratory: Eurofins Midland

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

hority	Pi	rogram	Identification Number	Expiration Date
as	N	ELAP	T104704400-22-25	06-30-23
• ,		ut the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for w
the agency does not o	ffer certification.			
the agency does not o Analysis Method	ffer certification . Prep Method	Matrix	Analyte	
0,		Matrix Solid	Analyte Total TPH	

5/4/2023

Job ID: 890-4601-1 SDG: 03E1558135 3 4 5 6 7 8 9

Method Summary

Client: Ensolum Project/Site: JRU 17 CTB Job ID: 890-4601-1 SDG: 03E1558135

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
EPA = US	STM International Environmental Protection Agency 'Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edi	ion November 1086 And Its I Indates	
	= TestAmerica Laboratories, Standard Operating Procedure	ion, november 1900 And its opdates.	
	e ferences: = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		
	- Lutoning withlend, 12 11 W. FIORULA AVE, withlend, 1×15701 , TEL (432)/04-3440		

Sample Summary

Client: Ensolum Project/Site: JRU 17 CTB Job ID: 890-4601-1 SDG: 03E1558135

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-4601-1	SW07	Solid	05/01/23 13:15	05/01/23 14:54	0-4'	4
						5
						8
						9
						12
						13

🔅 eurofins	S Environment Testing Xenco	esting	Houstor Midland, T EL Paso Hobbs, /	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	as, TX (214) 902-0300 onio, TX (210) 509-3334 ock, TX (806) 794-1296 ad, NM (575) 988-3199	×	Work Order No:
Project Manager: Tacom	Tacoma Morrissey		Bill to: (if different)	Garrett Green			ğ
	ä		Company Name:	XTO Energy		Program: UST/PS	Program: UST/PST] PRP Brownfields RRC
	3122 National Parks Hwy		Address:	3104 E. Green St.		State of Project:]
e ZIP:	Carlsbad, NM 88220		City, State ZIP:	Carlsbad, NM 88220	Ö	Reporting: Level II	Reporting: Level II Level III PST/UST TRRP
	303-887-2946	Email:	Garrett.Green@	Garrett.Green@ExxonMobil.com		Deliverables: EDD	ADaPT
Project Name:	JRU 17 CTB	Turn	Turn Around		ANALYSIS RE	REQUEST	Preservative Codes
Project Number:	03E1558135	Routine	2	Pres.			None: NO
Project Location:		Due Date:	2Day				Cool: Cool
Sampler's Name:	Connor Whitman	TAT starts th	e day received by				HCL: HC
PO #		the lab, if rec	the lab, if received by 4:30pm	ers			H ₂ S0 ₄ : H ₂
SAMPLE RECEIPT	Temp Blank: Yes No	Wet lce:	(Yes No	nete).0)			H ₃ PO ₄ : HP
Samples Received Intact:	ᅻ	ter ID:	TN-007	-			NaHSO4: NABIS
	NO NIA	Factor:	, jo				Na2S2O3: NASO3
Seals:	Yes NO (N/A Temperati	I emperature Keading:	8-	5)	890-4601 Chain of Cu	Custody	NaOH+Ascorbic Acid: SAPC
Sample Identification	Matrix	Time Sampled	ab p	CHLORII TPH (801 BTEX (80			Sample Comments
SW07	S 5/1/2023	ω	0-4' Comp	×			Incident ID:
		1					nAPP2226628060
							Cost Center
	/						
	1	4					AFE:
		/					PA.2022.04878.EXP.01
			/				
				CAR!			
Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM	M Texas 11 Al	Sb As Ba Be B	Cd Ca Cr Co Cu Fe Pb	Mg Mn Mo Ni K	Se Ag SiO ₂ Na Sr Ti Sn U
Circle Method(s) and Metal(s) to be analyzed	al(s) to be analyzed	TCLP / SF	TCLP / SPLP 6010: 8RCRA	RA Sb As Ba Be Co	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo	Mo Ni Se Ag TI U	Hg: 1631 / 245.1 / 7470 / 7471
otice: Signature of this document f service. Eurofins Xenco will be l f Eurofins Xenco. A minimum cha	t and relinquishment of samples co liable only for the cost of samples arge of \$85.00 will be applied to ea	nstitutes a valid pur and shall not assum th project and a cha	chase order from clien e any responsibility foi rge of \$5 for each sam	t company to Eurofins Xenco any losses or expenses incu ple submitted to Eurofins Xer	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 negotia	tors. It assigns standard terms and conditions es are due to circumstances beyond the control terms will be enforced unless previously negotiated	and conditions ond the control viously negotiated.
Relinquished by: (Signature)	ature) Rece	Received by: (Signature)	ure)	Date/Time	Relinquished by: (Signa	ignature) Recei	Received by: (Signature)
Contaction	Dere	La X	the	5/1/23 145	A A A		

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4601 List Number: 1 Creator: Stutzman, Amanda

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

Job Number: 890-4601-1

SDG Number: 03E1558135

List Source: Eurofins Carlsbad

Eurofins Carlsbad Released to Imaging: 11/6/2023 11:19:05 AM

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4601 List Number: 2 Creator: Rodriguez, Leticia

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

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

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Job Number: 890-4601-1 SDG Number: 03E1558135

List Source: Eurofins Midland List Creation: 05/03/23 10:57 AM



APPENDIX C

NMOCD Notifications

Released to Imaging: 11/6/2023 11:19:05 AM

Tacoma Morrissey

From:	Collins, Melanie <melanie.collins@exxonmobil.com></melanie.collins@exxonmobil.com>
Sent:	Monday, March 20, 2023 1:58 PM
То:	Tacoma Morrissey; Ashley Ager
Cc:	Green, Garrett J; Pennington, Shelby G
Subject:	FW: The Oil Conservation Division (OCD) has approved the application, Application ID: 165745

[**EXTERNAL EMAIL**]

Work Plan approval for JRU 17 CTB

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Friday, March 17, 2023 9:10 AM
To: Collins, Melanie <melanie.collins@exxonmobil.com>
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 165745

External Email - Think Before You Click

To whom it may concern (c/o Melanie Collins for XTO ENERGY, INC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2226628060, with the following conditions:

 The Remediation Plan is Conditionally Approved. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. Confirmation samples should be collected every 200 ft2. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. The work will need to occur in 90 days after the work plan has been approved.

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you, Robert Hamlet 575-748-1283 Robert.Hamlet@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, NM 87505

From: <u>G</u>	ireen, Garrett J
To: <u>Er</u>	nviro, OCD, EMNRD; Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Cc: D	elawareSpills /SM; Tacoma Morrissey
Subject: X	TO - Sampling Notification (Week of 4/10/23 - 4/14/23)
Date: T	hursday, April 6, 2023 10:35:58 AM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the sites listed below for the week of April 10, 2023.

Wednesday

- PLU CVX JV 018H / NAB1705937661
- JRU 17 CTB/ nAPP2226628060
- BEU 156 Fire / nAPP2304448906

Thursday

- PLU CVX JV 018H / NAB1705937661
- JRU 17 CTB/ nAPP2226628060
- PLU 387H / NMAP1823448856

Friday

- PLU 387H / NMAP1823448856

Thank you,

Garrett Green

Environmental Coordinator Delaware Business Unit (575) 200-0729 <u>Garrett.Green@ExxonMobil.com</u>

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

District I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	225882
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By Condition

We have received your closure report and final C-141 for Incident #NAPP2226628060 JAMES RANCH UNIT 17 CTB, thank you. This closure is approved. 11/6/2023 rhamlet

CONDITIONS

Action 225882

Condition Date