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

State of New Mexico Energy Minerals and Natural Resources Department

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

Incident ID	NAPP2224527297
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy			OGRID 5	OGRID 5380	
Contact Name Garrett Green			Contact Te	elephone 575-200-0729	
Contact email garrett.gre	en@exxonmobil.co	om	Incident #	(assigned by OCD)	
Contact mailing address			w Mexico, 88220		
		<u> </u>	an 1		
		Location	of Release So	ource	
Latitude 32.39098			Longitude _	-103.90321	
		(NAD 83 in dec	cimal degrees to 5 decim	nal places)	
Site Name JRU DI 11	Ekalaka 183H <mark>823</mark>	Н	Site Type P	Production Well	
Date Release Discovered			API# (if app		
			I		
Unit Letter Section	Township	Range	Coun	ıty	
J 17	22S	30E	Eddy	У	
Surface Owner: 🗷 State	□ Federal □ Tri	ihal 🔲 Private (A	Name:		
burrace owner. E burre	Tederal III	ioai 🗀 i iivate (i	<i></i>		
		Nature and	l Volume of F	Release	
Materia	al(s) Released (Select all	that apply and attach	calculations or specific	justification for the volumes provided below)	
Crude Oil	Volume Released			Volume Recovered (bbls)	
Produced Water	Volume Released	d (bbls)		Volume Recovered (bbls)	
		ion of total dissolv water >10,000 mg		☐ Yes ☐ No	
Condensate	Volume Released			Volume Recovered (bbls)	
Natural Gas Volume Released (Mcf)			Volume Recovered (Mcf)		
▼ Other (describe) Volume/Weight Released (provide units)		units)	Volume/Weight Recovered (provide units)		
Produced Water w/FR 30.00 BBLS		22.00 BBLS			
Cause of Release Sand errecover	rosion caused coil t	ubing on pump tro A third-party cont	uck to split, releasing ractor has been reta	ng fluids both to containment and pad. A vacuum truck ained for remediation purposes.	

Received by OCD: 2/15/2023/3:41:34 PM State of New Mexico
Page 2 Oil Conservation Division

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Incident ID	NAPP2224527297
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Was this a major	If YES, for what reason(s) does the respon	sible party consider this a major release?
release as defined by	A release of 25 barrels or greater.	
19.15.29.7(A) NMAC?		
🗶 Yes 🗌 No		
If YES, was immediate n	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
Yes, by Jake Foust to ocd	.enviro@state.nm.us, Mike Bratcher, and Re	obert Hamlet on 08/22/2022 via email.
	Initial Ro	esponse
The responsible	party must undertake the following actions immediatel	vunless they could create a safety hazard that would result in injury
The vesponsion j	, man	
The source of the rele	ease has been stopped.	
	**	the environment
	is been secured to protect human health and	
		ikes, absorbent pads, or other containment devices.
	ecoverable materials have been removed and	
	d above have <u>not</u> been undertaken, explain	vhy:
NA		
		emediation immediately after discovery of a release. If remediation
		efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.
		pest of my knowledge and understand that pursuant to OCD rules and actions and perform corrective actions for releases which may endanger
public health or the environs	ment. The acceptance of a C-141 report by the C	CD does not relieve the operator of liability should their operations have
		at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
and/or regulations.	•	responsionity for compitance with any other rederal, state, or local laws
Printed Name: Shelby G.	. Pennington	Title: Environmental Manager
/X n/		
Signature:	lestemijo	Date: 9/1/2022
email: shelby.g.penningto	on@exxonmobil.com	Telephone: 281-723-9353
		1
OCD Only		
	n Hariman	Date: 08/02/2022
Received by:Jocely	n Harimon	Date:08/02/2022_

30.00 bbls

0.00 bbls

22.00 bbls

VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 20. Area 2 Approximate Area = 7183. Average Saturation (or depth) of spill = 2. Average Porosity Factor = 0. VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 10.	Location:	JRU DI 11 Elkaka 183H		
Approximate Area = VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 20. Area 2 Approximate Area = 7183. Average Saturation (or depth) of spill = 2. Average Porosity Factor = 0. VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 10.	Spill Date:	8/20/2022		
VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 20. Area 2 Approximate Area = 7183. Average Saturation (or depth) of spill = 2. Average Porosity Factor = 0. VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 10.		Area 1		
Total Crude Oil = 0. Total Produced Water = 20. Area 2 Approximate Area = 7183. Average Saturation (or depth) of spill = 2. Average Porosity Factor = 0. VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 10. TOTAL VOLUME OF LEAK	Approximate A		112.29	cu.ft.
Area 2 Approximate Area = 7183. Average Saturation (or depth) of spill = 2. Average Porosity Factor = 0. VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 10.		VOLUME OF LEAK		
Area 2 Approximate Area = 7183. Average Saturation (or depth) of spill = 2. Average Porosity Factor = 0. VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 10.	Total Crude Oil	=	0.00	bbls
Approximate Area = 7183. Average Saturation (or depth) of spill = 2. Average Porosity Factor = 0. VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 10.	Total Produced	Water =	20.00	bbls
Average Saturation (or depth) of spill = 2. Average Porosity Factor = 0. VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 10.		Area 2		
Average Porosity Factor = 0. VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 10. TOTAL VOLUME OF LEAK	Approximate A	rea =	7183.00	sq. ft.
VOLUME OF LEAK Total Crude Oil = 0. Total Produced Water = 10. TOTAL VOLUME OF LEAK	Average Saturation (or depth) of spill = 2.50 inc			inches
Total Crude Oil = 0. Total Produced Water = 10. TOTAL VOLUME OF LEAK	Average Porosi	ty Factor =	0.03	
Total Produced Water = 10. TOTAL VOLUME OF LEAK		VOLUME OF LEAK		
TOTAL VOLUME OF LEAK	Total Crude Oil	=	0.00	bbls
	Total Produced	Water =	10.00	bbls
Total Crude Oil =		TOTAL VOLUME OF LEAK		
	Total Crude Oi	=	0.00	bbls

TOTAL VOLUME RECOVERED

Total Produced Water =

Total Produced Water =

Total Crude Oil =

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

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

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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 140329

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	140329
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created B		Condition Date
jharimo	n None	9/2/2022

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Incident ID	NAPP2224527297	
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Site Assessment/Characterization

t his information must be provided to the appropriate district office no taler than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release?	51-100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes 🏻 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes 🏻 No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	X Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil

Characterization Report Checklist: Each of the following items must be included in the report.
<u> </u>
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
Field data
Data table of soil contaminant concentration data
Depth to water determination
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
Boring or excavation logs
Photographs including date and GIS information
☐ Topographic/Aerial maps
☐ Laboratory data including chain of custody

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

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.						
Printed Name: _Garrett Green	Title: _Environmental Coordinator					
Signature: Sath Sur	Date:2/13/2023					
email: _garrett.green@exxonmobil.com	Telephone:575-200-0729					
OCD Only						
Received by:	Date:02/15/2023					

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

Page 7 of 195 Incident ID NAPP2224527297 District RP Facility ID Application ID

Remediation Plan

 ☑ Detailed description of proposed remediation technique ☑ Scaled sitemap with GPS coordinates showing delineation point ☑ Estimated volume of material to be remediated ☑ Closure criteria is to Table 1 specifications subject to 19.15.29.1 ☑ Proposed schedule for remediation (note if remediation plan times) 	2(C)(4) NMAC
Deferral Requests Only: Each of the following items must be con	firmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around predeconstruction.	oduction equipment where remediation could cause a major facility
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 complet rules and regulations all operators are required to report and/or file complete which may endanger public health or the environment. The acceptantiability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local between the complete of the complete o	rertain release notifications and perform corrective actions for releases nee of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Printed Name:Garrett Green	Title: _Environmental Coordinator
Signature: Satt Sur	Date:2/13/2023
email:garrett.green@exxonmobil.com	Telephone:575-200-0729
OCD Only	
Received by:	Date:02/15/2023
☐ Approved ☐ Approved with Attached Conditions of	Approval Denied Deferral Approved
Signature:	Date:

	Page 8 of 19	95
Incident ID	NAPP2224527297	
District RP		
Facility ID		
Application ID		

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.									
Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)									
Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.									
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility leconstruction.									
Extents of contamination must be fully delineated.									
Contamination does not cause an imminent risk to human health, the environment, or groundwater.									
hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD ules 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 iability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, urface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of esponsibility for compliance with any other federal, state, or local laws and/or regulations.									
Printed Name:Garrett Green Title: _Environmental Coordinator									
Signature: Date:2/13/2023									
email:garrett.green@exxonmobil.com Telephone:575-200-0729									
OCD Only									
Received by: Jocelyn Harimon Date:02/15/2023									
☐ Approved ☐ Approved ☐ Deferral Approved ☐ Deferral Approved									
Signature: Robert Hamlet Date: 6/16/2023									



February 13, 2023

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

Re: Remediation Work Plan JRU DI 11 Ekalaka 823H Incident Number NAPP2224527297 Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan (Work Plan)* to document site assessment and delineation activities completed to date and proposes remedial actions to address impacted soil identified at the JRU DI 11 Ekalaka 823H (Site). The purpose of the Site assessment and delineation activities was to determine the presence or absense of impacted soil resulting from a release of produced water with friction reducer at the Site. The following *Work Plan* proposes to excavate impacted soil and fully delineate the release extent.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit J, Section 17, Township 22 South, Range 30 East, in Eddy County, New Mexico (32.39098°, -103.90321°) and is associated with oil and gas exploration and production operations on state land managed by the New Mexico State Land Office (SLO).

On August 20, 2022, sand erosion of coil tubing attached to a pump truck caused the tubing to split, resulting in the release of 30 barrels (bbls) of produced water with friction reducer into a temporary lined containment and onto the surface of the well pad. A vacuum truck was dispatched to the Site to recover free standing fluids, approximately 22 bbls of fluids were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on August 22, 2022 and submitted a Release Notification Form C-141 (Form C-141) on September 1, 2022. The release was assigned Incident Number NAPP2224527297.

Produced water is recycled through filtering and separation, then mixed in a blender with friction reducer and used as hydraulic fracturing (frac) fluid during the well completion process. The safety data sheet (SDS) for friction reducer is provided as Appendix A. The temporary liner containment was removed prior to beginning Site assessment activities. As such, a liner inspection could not be completed.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 3122 National Park Highway | Carlsbad, NM 882200 | ensolum.com

XTO Energy, Inc. Remediation Work Plan JRU DI 11 Ekalaka 823H

Depth to groundwater at the Site is estimated to be between 50 feet and 100 feet below ground surface (bgs) based on nearby groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 322432103543301, located approximately 1.3 miles north of the Site. The groundwater well has a reported depth to groundwater of 66 feet bgs and a total depth of 176 feet bgs. Two other USGS well locations are closer to the Site, but the most recent groundwater data for each well exceeds the NMOCD recommended guideline of depth to groundwater data collected within the last 25 years. All wells used for depth to water determination are depicted on Figure 1 and the well record is included in Appendix B.

The closest continuously flowing or significant watercourse to the Site is a seasonal dry wash, located approximately 907 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is underlain by unstable geology (high potential karst designation area).

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

Benzene: 10 milligrams per kilogram (mg/kg)

Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg

TPH: 100 mg/kgChloride: 600 mg/kg

Because the release included produced water and friction reducer, the SDS was reviewed to determine what additional chemcials of concern (COCs), if any, should be assessed. According to the SDS, the friction reducer does not cotain any chemicals regulated by the Clean Water Act (CWA) or the Comprehensive Environmental Response Compensation and Liability Act (CERCLA); however the friction reducer does include hydro treated petroleum distillates, which can be detected through analysis of TPH. As such, no additional COCs were assessed for this release.

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On September 26, 2022, Ensolum personnel conducted a Site assessment to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four delineation soil samples (SS01 through SS04) were collected within the release extent at a depth of approximately 0.25 feet bgs to assess for the presence or absence of impacted soil. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach[®] chloride QuanTab[®] test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following COCs: BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organice (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Soil samples delivered to the laboratory the same day they are collected may not have equilibrated to the 6 degrees Celcius required for shipment and long term storage, but are considered by the laboratory to have been received in acceptable condition.



XTO Energy, Inc. Remediation Work Plan JRU DI 11 Ekalaka 823H

Based on elevated TPH and chloride concentrations observed in soil samples SS01 through SS04, additional delineation activities appeared to be warranted.

On November 2 and 3, 2022, Ensolum returned to the Site to oversee additional delineation activities. Potholes PH01 through PH05 were advanced by use of heavy equipment within and around the release extent. The potholes were advanced to depths ranging from 6 feet to 10 feet bgs. Discrete soil samples were collected from each pothole at depths ranging from 0.5 feet bgs to 10 feet bgs. Delineation potholes PH01 and PH02 were collected within the release extent and delineation pothols PH03 through PH05 were collected outside the visible release extent. Additional delineation to the south and further west, beyond PH03, was not possible due to ongoing flowback operations in those areas. The delineation soil samples were field screened, handled, and submitted for analysis as described above at Eurofins. Field screening results and observations were logged on lithologic/soil sampling logs, which are included in Appendix C. The delineation soil sample locations are depicted on Figure 2. Photographic documentation was completed during the Site visits and a photographic log is included in Appendix D.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all delineation soil samples collected indicated benzene and BTEX concentrations were below the Site Closure Criteria. Analytical results indicated TPH existed in soil samples SS01 through SS04 at concentrations ranging from 4,920 mg/kg to 7,300 mg/kg, and in PH02B at 147 mg/kg. All other soil samples collected indicated TPH concentrations were in compliance with the Site Closure Criteria. Chloride concentrations varied throughout all delineation soil samples collected within the release extent. Chloride concentrations exceeding the Closure Criteria in soil samples SS01 through SS04 and PH01 through PH03. Delineation soils samples PH04 and PH05, collected to the east and north of the release extent, indicated all COC concentrations were compliant with the Closure Criteria and successfully delineate the release in those directions. Further delineation to the west and south was not possible due to ongoing XTO operations in those areas. Laboratory Analytical Reports & Chain-of-Custody Documentation are presented in Appendix E. NMOCD notifications are presented in Appendix F.

PROPOSED REMEDIATION WORK PLAN

Site assessment and delineation activities were conducted to assess for the presence or absence of impacted soil resulting from a release of produced water with friction reducer. Based on laboratory analytical results for delineation soil samples, TPH and chloride impacted soil exist across an approximate 8,300 square-foot area and at depths ranging from 2 feet to 6 feet bgs. Vertical definition of the release has been established in PH01 at 10 feet bgs. Horizontal definition of the release has been established to the north (PH05) and the east (PH04) but COC concentrations in pothole PH03 indicate the western edge is not defined and delineation soil samples were not collected south of the release extent due to on-site XTO operations conducting work at the time delineation activities were being conducted.

XTO proposes to remove TPH and chloride impacted soil identified at the Site. The proposed excavation extent is depicted on Figure 3. Following the removal of impacted soil, confirmation samples will be collected from the floors and sidewalls of the final excavation extent. Due to the estimated size of the excavation, XTO requests a variance for frequency of excavation confirmation samples. XTO proposes five-point composite samples to be collected at a sampling frequency of every 500 square feet along the excavation floor and sidewalls. The proposed sampling frequency would reduce the total amount of samples from approximately 55 samples (200 square foot frequency) to approximately 22 samples. The soil samples will be handled and analyzed for COCs as described above and submitted to Eurofins for laboratory analysis. An estimated 1,850 cubic yards of impacted soil will be removed. The excavated



XTO Energy, Inc. Remediation Work Plan JRU DI 11 Ekalaka 823H

soil will be transferred a New Mexico approved landfill facility for disposal. The excavation will be backfilled and recontoured to match pre-existing conditions.

XTO believes this *Work Plan* is protective of human health, the environment, and groundwater. As such, XTO requests approval of this *Work Plan* by NMOCD. XTO will complete the excavation and soil sampling activities within 90 days of the date of approval of this *Work Plan* by the NMOCD. If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely, **Ensolum, LLC**

Como Uhitmen

Connor Whitman Field Geologist

Daniel R. Moir, PG Senior Managing Geologist

cc: Garrett Green, XTO

Shelby Pennington, XTO

SLO

Appendices:

Figure 1 Site Location Map
Figure 2 Soil Sample Locations

Figure 3 Proposed Excavation Extent
Table 1 Soil Sample Analytical Results

Appendix A Friction Reducer SDS
Appendix B Referenced Well Records
Appendix C Lithologic / Soil Sampling Logs

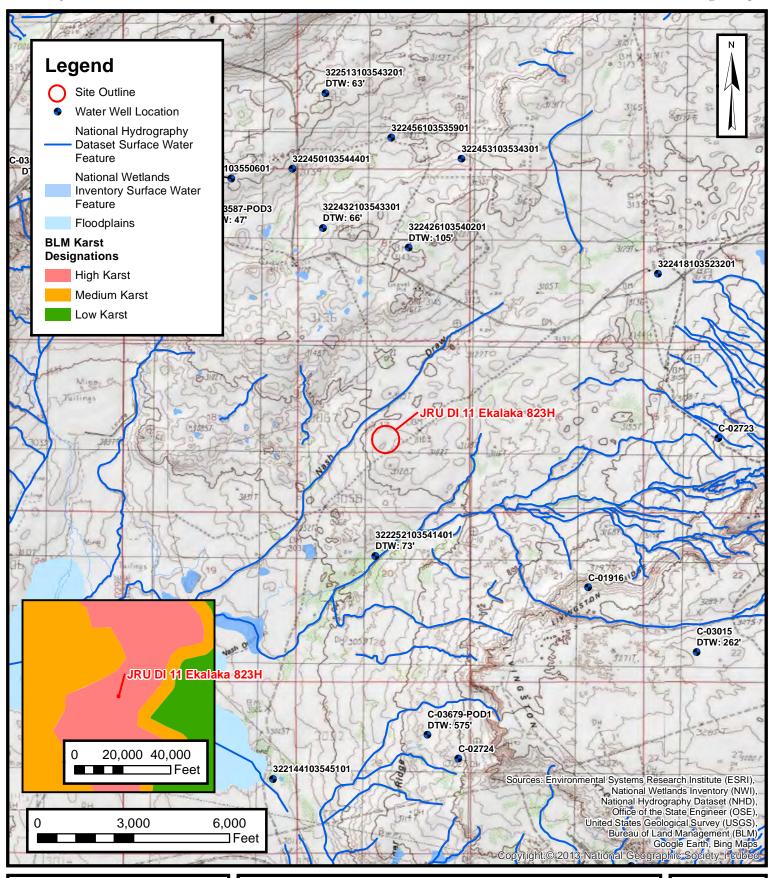
Appendix D Photographic Log

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

Appendix F NMOCD Notifications/Correspondence



FIGURES





Site Receptor Map

XTO Energy, Inc JRU DI 11 Ekalaka 823H NAPP2224527297 Unit J, Sec 17, T22S, R30E Eddy County, New Mexico **FIGURE**

1

Legend **Delineation Soil Sample** Location with Concentrations Exceeding Closure Criteria **Delineation Soil Sample** Location with Concentrations Previously Exceeding Closure Delineation Soil Samples with Concentrations in Compliance with Closure Criteria **Buried Electrical Line** Release Extent PH05@0.5' O PH05A@2' PH05B@4' PH05C@6' PH05D@10' PH01@2' PH01A@4' PH01B@6' SS04@0.25' PH01C@10' PH03@0.5' PH03A@2' PH04@0.5' PH04A@2' PH03B@4 PH03C@6' ● PH04B@4' PH04C@6' PH02@2' PH04D@10' PH02A@4' SS03@0.25' PH02B@6' SS02@0.25' SS01@0.25 Soil samples in **bold** indicate soil concentrations exceeds the applicable regulatory closure criteria. Sample ID@ Depth Below Ground Surface. 60 120] Feet © 2023 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus



Delineation Soil Sample Locations

XTO Energy, Inc JRU DI 11 Ekalaka 823H NAPP2224527297 Unit J, Sec 17, T22S, R30E Eddy County, New Mexico **FIGURE**

2

Legend Delineation Soil Sample Location with Concentrations **Exceeding Closure Criteria Delineation Soil Sample** Location with Concentrations Previously Exceeding Closure Delineation Soil Samples with Concentrations in Compliance with Closure Criteria **Buried Electrical Line** Proposed Excavation Area 0 60 120] Feet © 2023 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus



Proposed Excavation Area

XTO Energy, Inc JRU DI 11 Ekalaka 823H NAPP2224527297 Unit J, Sec 17, T22S, R30E Eddy County, New Mexico **FIGURE**

3



TABLES



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS JRU DI 11 Ekalaka 823H 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	losure Criteria (l	NMAC 19.15.29)	10	50	NE	NE	NE	NE	100	600	
	Delineation Soil Samples										
SS01	09/26/2022	0.25	<0.00201	<0.00402	<50.0	4,610	314	4,610	4,920	10,400	
SS02	09/26/2022	0.25	<0.00202	<0.00403	<50.0	3,960	1,030	3,960	4,990	4,440	
SS03	09/26/2022	0.25	<0.00199	<0.00398	<250	5,730	1,390	5,730	7,120	4,690	
SS04	09/26/2022	0.25	<0.00200	< 0.00399	<250	6,320	984	6,320	7,300	30,400	
PH01	11/02/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	5,690	
PH01A	11/02/2022	4	< 0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	11,700	
PH01B	11/02/2022	6	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	8,960	
PH01C	11/02/2022	10	< 0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	56.0	
PH02	11/03/2022	2	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	123	
PH02A	11/03/2022	4	<0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	1,190	
PH02B	11/03/2022	6	<0.00198	< 0.00396	<50.0	147	<50.0	147	147	1,150	
PH03	11/03/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	3,170	
PH03A	11/03/2022	2	< 0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,950	
PH03B	11/03/2022	4	< 0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	23.6	
PH03C	11/03/2022	6	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	18.5	
PH04	11/03/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	68.1	
PH04A	11/03/2022	2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	481	
PH04B	11/03/2022	4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	420	
PH04C	11/03/2022	6	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	267	
PH04D	11/03/2022	10	<0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	424	

Ensolum 1 of 2



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS JRU DI 11 Ekalaka 823H 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 Closure Criteria (NMAC 19.15.29)		10	50	NE	NE	NE	NE	100	600	
PH05	11/03/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	208
PH05A	11/03/2022	2	<0.00198	< 0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	20.0
PH05B	11/03/2022	4	<0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	29.2
PH05C	11/03/2022	6	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	19.4
PH05D	11/03/2022	10	< 0.00202	< 0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	15.7

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.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon



APPENDIX A

Friction Reducer SDS



SAFETY DATA SHEET

Issuing Date 01-Aug-2019 Revision Date 01-Aug-2019 Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name POLYglide Xcel-200

Other means of identification

Product Code(s) 10497

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use No information available

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address Manufacturer Address

PfP Industries PfP Industries 29738 Goynes Rd. 29738 Goynes Rd. Katy, TX 77493 Katy, TX 77493

Emergency telephone number

Company Phone Number 281-371-2000

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids Category 4

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Warning

Combustible liquid

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Revision Date 01-Aug-2019

Appearance Opaque Physical state Liquid Odor Mineral Oil

Precautionary Statements - Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Information

May be harmful in contact with skin Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present

and easy to do. Continue rinsing.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s)

involved, take precautions to protect themselves and prevent spread of contamination.

Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

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Revision Date 01-Aug-2019

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the

chemical

Keep product and empty container away from heat and sources of ignition. In the event of

fire, cool tanks with water spray.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See

section 8 for more information. Take precautionary measures against static discharges. Do

not touch or walk through spilled material.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage

if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far

ahead of liquid spill for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert

absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat,

hot surfaces, sparks, open flames and other ignition sources. No smoking, Take precautionary measures against static discharges. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from

heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular

national regulations. Store in accordance with local regulations.

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Revision Date 01-Aug-2019

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or

level that contributes to the hazard classification of the mixture) which have an exposure

limit applicable in the region for which this safety data sheet is intended or other

recommended limit. At this time, the other relevant constituents have no known exposure

limits from the sources listed here.

Appropriate engineering controls

Engineering controls Showers

Eyewash stations

Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not

be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Opaque

Color Milky white to yellow

Odor Mineral Oil

Odor threshold No information available

Property Values Remarks • Method

pH No data available None known
Melting point / freezing point No data available None known
Boiling point / boiling range No data available None known

Flash point >= 67 °C / 153 °F

Evaporation rate No data available None known Flammability (solid, gas) No data available None known

Flammability Limit in Air

None known

Upper flammability limit: No data available
Lower flammability limit: No data available

Vapor pressureNo data availableNone knownVapor densityNo data availableNone known

Relative density 0.97 - 1.03
Water solubility Miscible in water
Solubility in other solvents No data available

Solubility in other solventsNo data availableNone knownPartition coefficientNo data availableNone knownAutoignition temperatureNo data availableNone knownDecomposition temperatureNo data availableNone known

Kinematic viscosity ≥150 mm²/s

Dynamic viscosity No data available None known

Explosive properties

Oxidizing properties

No data available

No information available

No information available

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Revision Date 01-Aug-2019

Other Information

Softening point

Molecular weight

VOC Content (%)

Liquid Density

No information available

10. STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

 ATEmix (oral)
 5,005.00 mg/kg

 ATEmix (dermal)
 2,002.00 mg/kg

 ATEmix (inhalation-dust/mist)
 5.20 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50		
Petroleum distillates, hydrotreated light 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat)4 h		

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

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Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Petroleum distillates, hydrotreated light 64742-47-8	-	2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 45: 96 h Pimephales promelas mg/L LC50 flow-through 2.2: 96 h Lepomis macrochirus mg/L LC50 static		4720: 96 h Den-dronereides heteropoda mg/L LC50

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

DOT Not regulated. Product does not sustain combustion (49 CFR 173.120(b)(3))

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Does not comply
IECSC Complies
KECL Complies

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PICCS Complies
AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

US State Regulations

This product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

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Revision Date 01-Aug-2019

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA Health hazards 2 Flammability 2 Instability 0 Physical and chemical

properties -

HMIS Health hazards 2 Flammability 2 Physical hazards 0 Personal protection X

Issuing Date 01-Aug-2019

Revision Date 01-Aug-2019

Revision Note No information available.

Disclaimer

The data supplied herein is for use only in connection with occupational safety and health. The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Updates to this information may be obtained by contacting (either reference contact location or website). PfP Industries MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. This information is not meant to be an all-inclusive document on worldwide hazard communication regulations. Each user of the material described herein must evaluate the conditions of use and design, many of which will be solely within the user's knowledge and control, and the appropriate protective actions, including proper notification and training of employees, necessary to prevent employee exposures, property damage or release to the environment.

End of Safety Data Sheet

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APPENDIX B

Referenced Well Records



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources

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

Click to hideNews Bulletins

- Explore the NEW USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
 • Full News

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs site_no list =

• 322432103543301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 322432103543301 22S.30E.07.242224

Table of data Tab-separated data

Eddy County, New Mexico Latitude 32°24'32", Longitude 103°54'33" NAD27

Land-surface elevation 3,128 feet above NAVD88

The depth of the well is 176 feet below land surface.

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

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

Output formats

Graph of da	<u>ta</u>									
Reselect per	<u>iod</u>									
Date	Time	? Water- level date- time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1949-05-18	3	D	62610		3040.69	NGVD29	1	Z		
1949-05-18	3	D	62611		3042.28	NAVD88	1	Z		
1949-05-18	3	D	72019	85.72			1	Z		
1976-12-08	3	D	62610		3067.18	NGVD29	1	Z		
1976-12-08	3	D	62611		3068.77	NAVD88	1	Z		
1976-12-08	3	D	72019	59.23			1	Z		
1983-01-18	3	D	62610		3065.69	NGVD29	1	Z		
1983-01-18	3	D	62611		3067.28	NAVD88	1	Z		
1983-01-18	3	D	72019	60.72			1	Z		
1987-10-20		D	62610		3061.42	NGVD29	1	Z		
1987-10-20		D	62611		3063.01	NAVD88	1	Z		
1987-10-20		D	72019	64.99			1	Z		
1992-12-09		D	62610		3059.29	NGVD29	1	S		
1992-12-09		D	62611		3060.88	NAVD88	1	S		
1992-12-09		D	72019	67.12			1	S		
1998-01-28	3	D	62610		3060.09	NGVD29	1	S		

Date	Time	? Water- level date- time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring	? Source measu
1998-01-28		D	62611		3061.68	NAVD88	1		S	
1998-01-28		D	72019	66.32			1		S	

Explanation

Section	Code	Description				
Water-level date-time accuracy	D	Date is accurate to the Day				
Parameter code	62610	Groundwater level above NGVD 1929, feet				
Parameter code	62611	Groundwater level above NAVD 1988, feet				
Parameter code	72019	Depth to water level, feet below land surface				
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988				
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929				
Status	1	Static				
Method of measurement	S	Steel-tape measurement.				
Method of measurement	Z	Other.				
Measuring agency		Not determined				
Source of measurement		Not determined				
Water-level approval status	А	Approved for publication Processing and review completed.				

Questions about sites/data? Feedback on this web site Automated retrievals <u>Help</u> Data Tips **Explanation of terms** Subscribe for system changes <u>News</u>

FOIA Privacy Policies and Notices Accessibility

<u>U.S. Department of the Interior | U.S. Geological Survey</u>

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2022-10-10 10:51:26 EDT

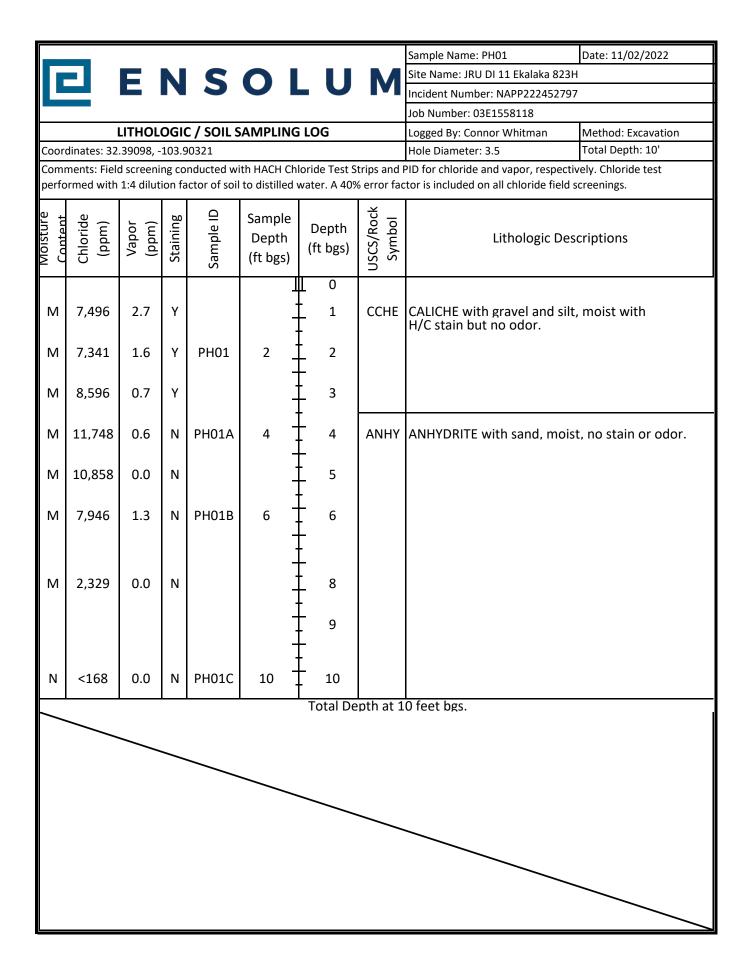
0.27 0.23 nadww01

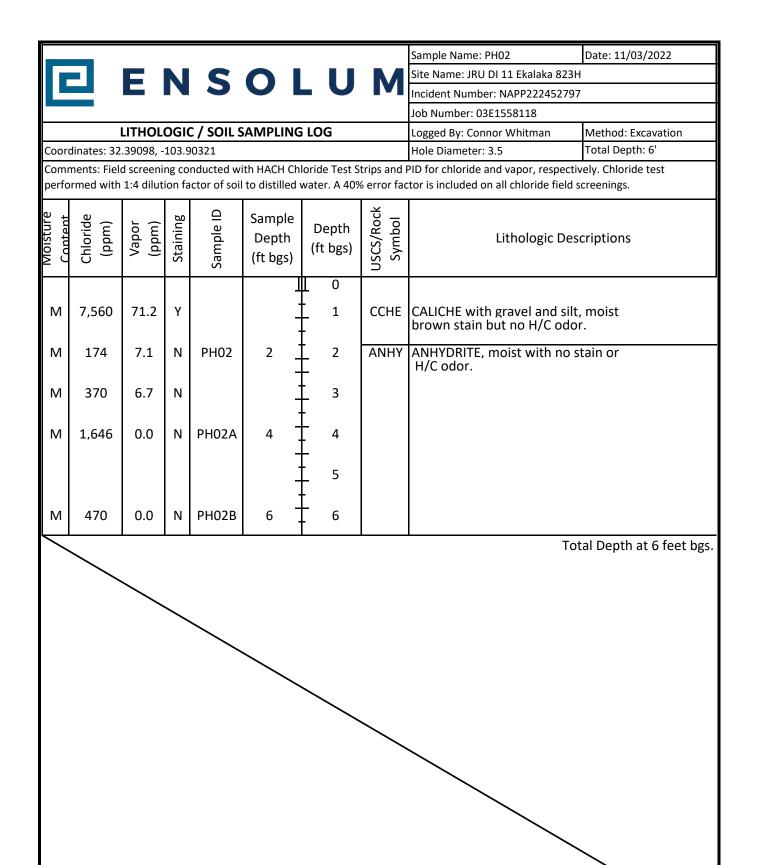
USA.gov

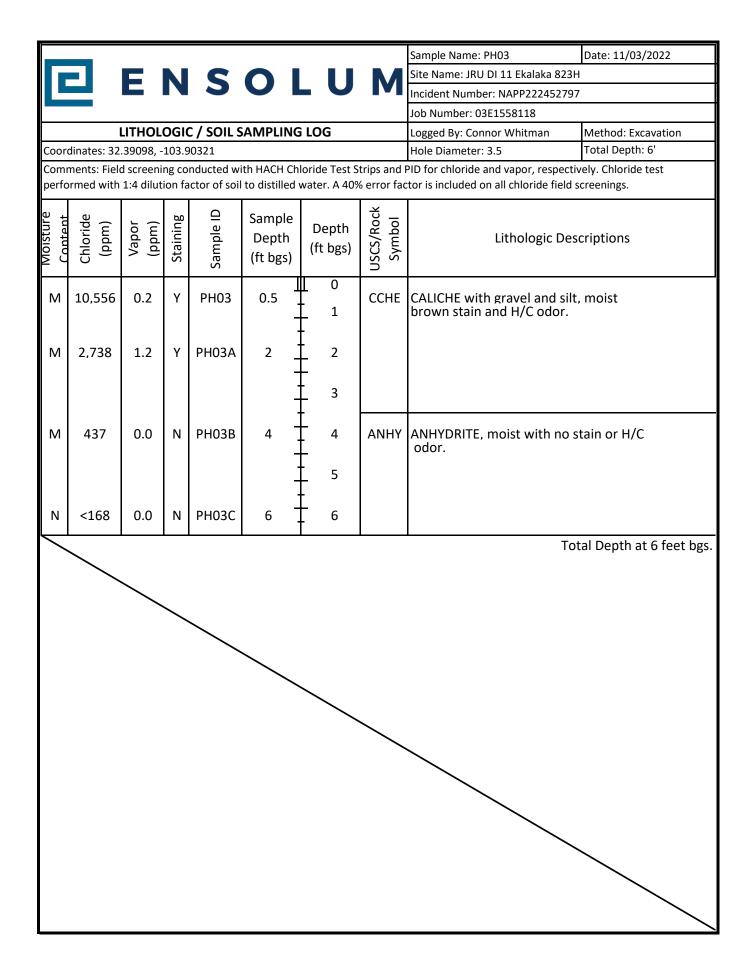


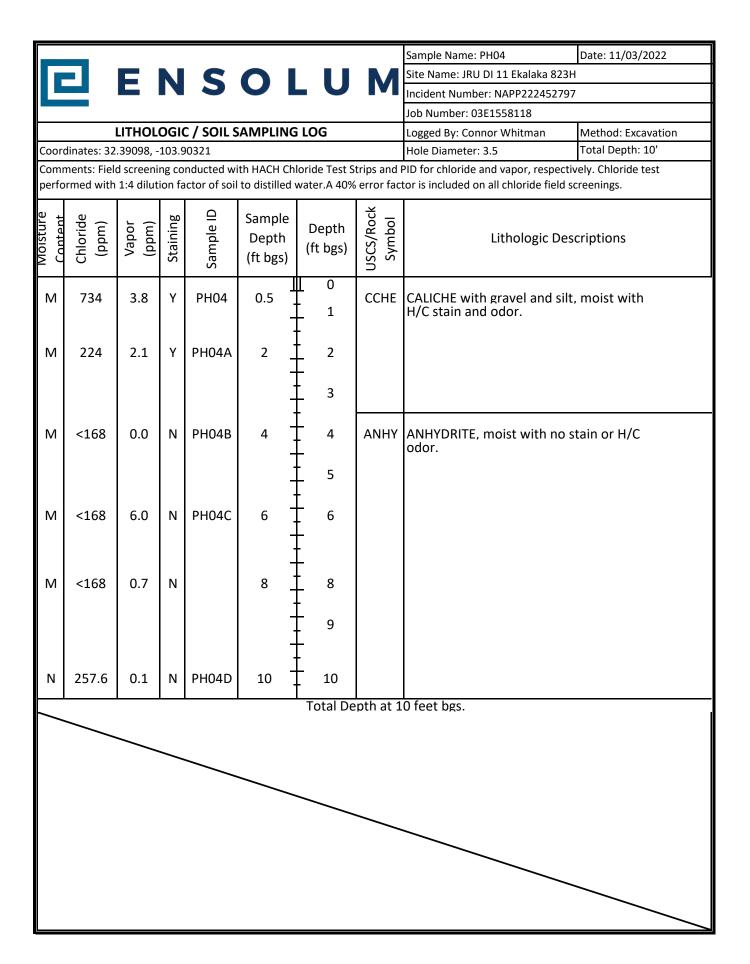
APPENDIX C

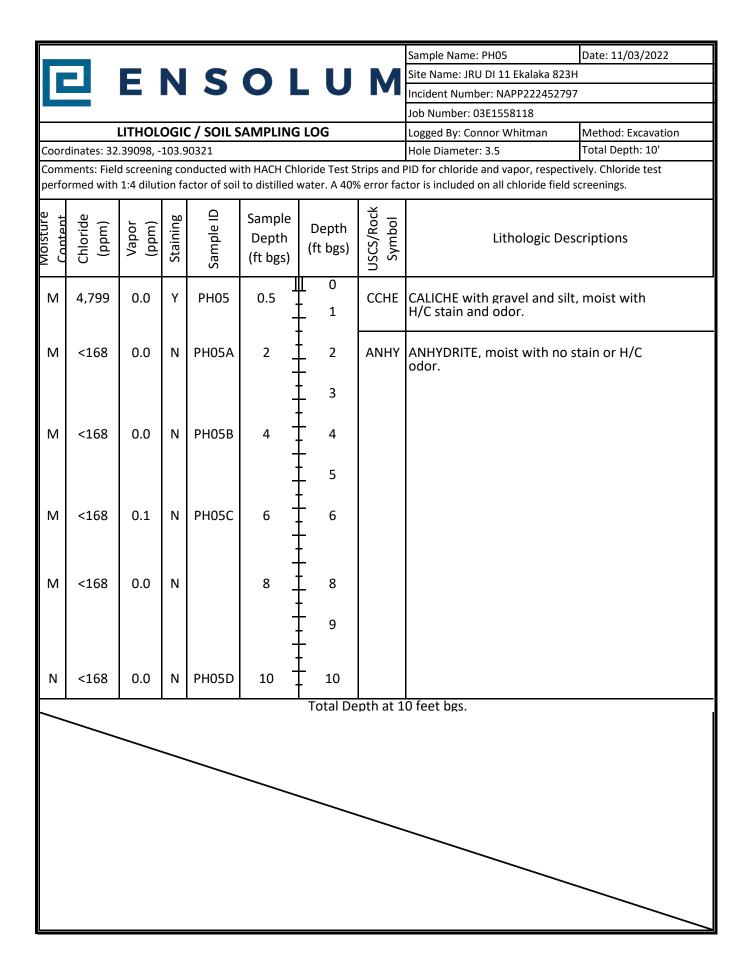
Lithologic Soil Sampling Logs











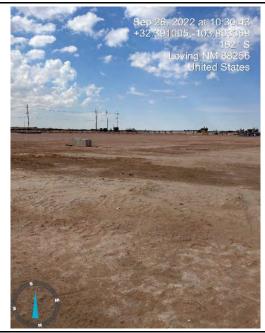


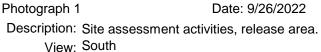
APPENDIX D

Photographic Log



Photographic Log XTO Energy, Inc JRU DI 11 Ekalaka 823H Incident ID NAPP2224527297







Photograph 2 Date: 9/26/2022

Description: Site assessment activities, release area.

View: East





Photograph 3 Date: 11/2/2022

Description: Delineation activities, area of PH01.

View: Southeast.

Photograph 4 Date: 11/3/2022
Description: Delineation activities, area of PH04.
View: East.



APPENDIX E

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3063-1

Laboratory Sample Delivery Group: 03E1558118 Client Project/Site: JDU DI 11 Ekalaka 183H

Revision: 1

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMPR

Authorized for release by: 10/10/2022 4:43:19 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum

Laboratory Job ID: 890-3063-1

Project/Site: JDU DI 11 Ekalaka 183H

SDG: 03E1558118

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QC Sample Results	10
QC Association Summary	14
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Certification Summary	18
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2

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13

Definitions/Glossary

Client: Ensolum Job ID: 890-3063-1 Project/Site: JDU DI 11 Ekalaka 183H

SDG: 03E1558118

Qualifiers

GC VOA Qualifier

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

Indicates the analyte was analyzed for but not detected.

Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.
HPLC/IC	
Qualifier	Qualifier Description

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)

Eurofins Carlsbad

RLRPD

TEF

TEQ **TNTC**

Case Narrative

Client: Ensolum

Project/Site: JDU DI 11 Ekalaka 183H

Job ID: 890-3063-1

SDG: 03E1558118

Job ID: 890-3063-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3063-1

REVISION

The report being provided is a revision of the original report sent on 10/7/2022. The report (revision 1) is being revised due to Per client email, requesting sample depths to be corrected with revised COC.

Report revision history

Receipt

The samples were received on 9/26/2022 12:02 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36328 and analytical batch 880-36341 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36328 and analytical batch 880-36341 recovered outside control limits for the following analytes: Benzene.

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

GC Semi VOA

Method 8015MOD NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-35610 and analytical batch 880-35641 was outside control limits. Sample non-homogeneity is suspected.

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-35610 and analytical batch 880-35641 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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.

Matrix: Solid

Lab Sample ID: 890-3063-1

Job ID: 890-3063-1

Client: Ensolum Project/Site: JDU DI 11 Ekalaka 183H SDG: 03E1558118

Client Sample ID: SS01

Date Collected: 09/26/22 09:35 Date Received: 09/26/22 12:02

Sample Depth: 0.25'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1 F1	0.00201	mg/Kg		10/07/22 08:23	10/07/22 13:19	1
Toluene	<0.00201	U F1 F2	0.00201	mg/Kg		10/07/22 08:23	10/07/22 13:19	1
Ethylbenzene	<0.00201	U F1 F2	0.00201	mg/Kg		10/07/22 08:23	10/07/22 13:19	1
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.00402	mg/Kg		10/07/22 08:23	10/07/22 13:19	1
o-Xylene	<0.00201	U F1 F2	0.00201	mg/Kg		10/07/22 08:23	10/07/22 13:19	1
Xylenes, Total	<0.00402	U F1 F2	0.00402	mg/Kg		10/07/22 08:23	10/07/22 13:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			10/07/22 08:23	10/07/22 13:19	1
1,4-Difluorobenzene (Surr)	101		70 - 130			10/07/22 08:23	10/07/22 13:19	1

		r - u.u.u.u.	•••					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/07/22 17:23	1

Method: 5W846 8015 NM - Diesei Range Organics (DRO) (GC)							
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4920	50.0	mg/Kg			09/30/22 09:27	1

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0 U *1	50.0	mg/Kg		09/28/22 13:29	09/29/22 22:13	1
Diesel Range Organics (Over C10-C28)	4610	50.0	mg/Kg		09/28/22 13:29	09/29/22 22:13	1
Oll Range Organics (Over C28-C36)	314	50.0	mg/Kg		09/28/22 13:29	09/29/22 22:13	1
Surrogate	%Recovery Qualifier	Limits			Prepared	Analyzed	Dil Fac

our oguto	70110001019	Quanii.		opa. oa	7 1.7.u.y 2.uu	2
1-Chlorooctane	86		70 - 130	09/28/22 13:29	09/29/22 22:13	1
o-Terphenyl	125		70 - 130	09/28/22 13:29	09/29/22 22:13	1
Method: MCAWW 300.0 - Anio	ns. Ion Chro	matograp	hv - Solul	le		

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10400	100	mg/Kg			09/28/22 15:41	20

Client Sample ID: SS02 Lab Sample ID: 890-3063-2 Date Collected: 09/26/22 09:40 Matrix: Solid

Date Received: 09/26/22 12:02

Sample Depth: 0.25'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *1	0.00202	mg/Kg		10/07/22 08:23	10/07/22 13:39	1
Toluene	<0.00202	U	0.00202	mg/Kg		10/07/22 08:23	10/07/22 13:39	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		10/07/22 08:23	10/07/22 13:39	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		10/07/22 08:23	10/07/22 13:39	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		10/07/22 08:23	10/07/22 13:39	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		10/07/22 08:23	10/07/22 13:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			10/07/22 08:23	10/07/22 13:39	1

Job ID: 890-3063-1

Client: Ensolum

Project/Site: JDU DI 11 Ekalaka 183H

SDG: 03E1558118

Client Sample ID: SS02

Date Collected: 09/26/22 09:40 Date Received: 09/26/22 12:02

Sample Depth: 0.25'

Lab Sample ID: 890-3063-2

Matrix: Solid

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

Surrogate %Recovery Qualifier I imits Prepared Analyzed Dil Fac 10/07/22 08:23 10/07/22 13:39 102 70 - 130 1,4-Difluorobenzene (Surr)

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac Total BTEX <0.00403 U 0.00403 mg/Kg 10/07/22 17:23

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

Result Qualifier Unit D Prepared Analyzed Dil Fac Total TPH 4990 50.0 mg/Kg 09/30/22 09:27

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

Result Qualifier D Dil Fac Unit Analyte Prepared Analyzed <50.0 U *1 50.0 09/28/22 13:29 09/29/22 22:34 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 3960 50.0 mg/Kg 09/28/22 13:29 09/29/22 22:34 C10-C28) Oll Range Organics (Over C28-C36) 50.0 09/28/22 13:29 09/29/22 22:34 1030 mg/Kg

%Recovery Dil Fac Surrogate Qualifier Limits Prepared Analyzed 1-Chlorooctane 96 70 - 130 09/28/22 13:29 09/29/22 22:34 92 09/28/22 13:29 o-Terphenyl 70 - 130 09/29/22 22:34

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte Result Qualifier Unit Prepared Analyzed Dil Fac Chloride 4440 100 mg/Kg 09/28/22 15:46 20

Client Sample ID: SS03 Lab Sample ID: 890-3063-3 **Matrix: Solid**

Date Collected: 09/26/22 09:45 Date Received: 09/26/22 12:02

Sample Depth: 0.25'

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

Analyte Result Qualifier RI Unit D Prepared Analyzed Dil Fac Benzene < 0.00199 U *1 0.00199 mg/Kg 10/07/22 08:23 10/07/22 14:00 Toluene <0.00199 U 0.00199 mg/Kg 10/07/22 08:23 10/07/22 14:00 Ethylbenzene <0.00199 U 0.00199 mg/Kg 10/07/22 08:23 10/07/22 14:00 m-Xylene & p-Xylene <0.00398 U 0.00398 10/07/22 08:23 10/07/22 14:00 mg/Kg o-Xylene <0.00199 U 0.00199 mg/Kg 10/07/22 08:23 10/07/22 14:00 Xylenes, Total <0.00398 U 0.00398 mg/Kg 10/07/22 08:23 10/07/22 14:00

%Recovery Surrogate Qualifier Limits Prepared Analyzed Dil Fac 94 70 - 130 10/07/22 08:23 10/07/22 14:00 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 100 70 - 130 10/07/22 08:23 10/07/22 14:00

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte Result Qualifier RL Unit D Analyzed Dil Fac Prepared Total BTEX <0.00398 U 0.00398 mg/Kg 10/07/22 17:23

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

Analyte Result Qualifier Unit Prepared Analyzed Dil Fac Total TPH 7120 250 mg/Kg 09/30/22 09:27

Job ID: 890-3063-1

Client: Ensolum Project/Site: JDU DI 11 Ekalaka 183H SDG: 03E1558118

Client Sample ID: SS03 Lab Sample ID: 890-3063-3

Date Collected: 09/26/22 09:45 **Matrix: Solid** Date Received: 09/26/22 12:02

Sample Depth: 0.25'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U *1	250	mg/Kg		09/28/22 13:29	09/29/22 22:56	5
Diesel Range Organics (Over C10-C28)	5730		250	mg/Kg		09/28/22 13:29	09/29/22 22:56	5
OII Range Organics (Over C28-C36)	1390		250	mg/Kg		09/28/22 13:29	09/29/22 22:56	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			09/28/22 13:29	09/29/22 22:56	5
o-Terphenyl	95		70 - 130			09/28/22 13:29	09/29/22 22:56	5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	4690		99.6	mg/Kg			09/28/22 15:51	20	

Lab Sample ID: 890-3063-4 **Client Sample ID: SS04**

Date Collected: 09/26/22 09:50 **Matrix: Solid**

Date Received: 09/26/22 12:02

Sample Depth: 0.25'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		10/07/22 08:23	10/07/22 14:20	1
Toluene	< 0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 14:20	1
Ethylbenzene	< 0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 14:20	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399	mg/Kg		10/07/22 08:23	10/07/22 14:20	1
o-Xylene	< 0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 14:20	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/07/22 08:23	10/07/22 14:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			10/07/22 08:23	10/07/22 14:20	1
1,4-Difluorobenzene (Surr)	103		70 - 130			10/07/22 08:23	10/07/22 14:20	1
- Method: TAL SOP Total BTEX	- Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/07/22 17:23	1
-								
Method: SW846 8015 NM - Die	esel Range	Organics (DRO) (GC)					
Method: SW846 8015 NM - Die Analyte	_	Organics (Qualifier	DRO) (GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Die Analyte Total TPH	_	•	, , ,	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 09/30/22 09:27	Dil Fac
Analyte Total TPH	7300	Qualifier	250 RL		<u>D</u>	Prepared		
Analyte Total TPH	Result 7300 Diesel Range	Qualifier	250 RL		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - D	Result 7300 Diesel Range	Qualifier Organics Qualifier	250 (DRO) (GC)	mg/Kg	_ =		09/30/22 09:27	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - D Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 7300 Piesel Range Result	Qualifier Organics Qualifier	250 (DRO) (GC) RL	mg/Kg Unit	_ =	Prepared	09/30/22 09:27 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - D Analyte Gasoline Range Organics	Result 7300 Diesel Range Result <250	Qualifier Organics Qualifier	RL 250 (DRO) (GC) RL 250	mg/Kg Unit mg/Kg	_ =	Prepared 09/28/22 13:29	09/30/22 09:27 Analyzed 09/29/22 23:17	1 Dil Fac 5
Analyte Total TPH Method: SW846 8015B NM - D Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 7300 Piesel Range Result <250 6320	Qualifier Organics Qualifier U *1	RL 250 (DRO) (GC) RL 250 250	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 09/28/22 13:29 09/28/22 13:29	09/30/22 09:27 Analyzed 09/29/22 23:17 09/29/22 23:17	
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)	Result 7300 Diesel Range Result <250 6320 984	Qualifier Organics Qualifier U *1	RL 250 (DRO) (GC) RL 250 250 250	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 09/28/22 13:29 09/28/22 13:29 09/28/22 13:29	09/30/22 09:27 Analyzed 09/29/22 23:17 09/29/22 23:17	1 Dil Fac 5 5

Client Sample Results

Client: Ensolum Job ID: 890-3063-1
Project/Site: JDU DI 11 Ekalaka 183H SDG: 03E1558118

Client Sample ID: SS04 Lab Sample ID: 890-3063-4

Date Collected: 09/26/22 09:50 Matrix: Solid
Date Received: 09/26/22 12:02

Sample Depth: 0.25'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	30400		248	mg/Kg			09/28/22 15:56	50	

4

5

7

10

12

13

Surrogate Summary

Client: Ensolum Job ID: 890-3063-1 Project/Site: JDU DI 11 Ekalaka 183H SDG: 03E1558118

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Percent	Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3063-1	SS01	111	101	
890-3063-1 MS	SS01	108	100	
890-3063-1 MSD	SS01	100	108	
890-3063-2	SS02	98	102	
890-3063-3	SS03	94	100	
890-3063-4	SS04	105	103	
LCS 880-36328/1-A	Lab Control Sample	114	102	
LCSD 880-36328/2-A	Lab Control Sample Dup	115	105	
MB 880-36328/5-A	Method Blank	105	110	
Surrogate Legend				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

			Percent Si	urrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-19720-A-1-C MS	Matrix Spike	85	79	
880-19720-A-1-D MSD	Matrix Spike Duplicate	105	93	
890-3063-1	SS01	86	125	
890-3063-2	SS02	96	92	
890-3063-3	SS03	88	95	
890-3063-4	SS04	113	130	
LCS 880-35610/2-A	Lab Control Sample	121	119	
LCSD 880-35610/3-A	Lab Control Sample Dup	107	109	
MB 880-35610/1-A	Method Blank	123	124	

Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3063-1 Project/Site: JDU DI 11 Ekalaka 183H SDG: 03E1558118

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36328/5-A

Matrix: Solid

Analysis Batch: 36341

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36328

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/07/22 08:23	10/07/22 12:50	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	10/07/22 08:2	3 10/07/22 12:50	1
1,4-Difluorobenzene (Surr)	110		70 - 130	10/07/22 08:2	3 10/07/22 12:50	1

Lab Sample ID: LCS 880-36328/1-A

Matrix: Solid

Analysis Batch: 36341

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36328

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.07461		mg/Kg		75	70 - 130	
Toluene	0.100	0.08217		mg/Kg		82	70 - 130	
Ethylbenzene	0.100	0.08494		mg/Kg		85	70 - 130	
m-Xylene & p-Xylene	0.200	0.1722		mg/Kg		86	70 - 130	
o-Xylene	0.100	0.08846		mg/Kg		88	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-36328/2-A

Matrix: Solid

Analysis Batch: 36341

Client Sample	ID: Lab	Control	Sample Dup
			T-1-1/81 A

Prep Type: Total/NA Prep Batch: 36328

Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Benzene 0.100 0.1124 *1 mg/Kg 112 70 - 130 40 35 Toluene 0.100 0.1167 mg/Kg 117 70 - 130 35 35 Ethylbenzene 0.100 0.1188 mg/Kg 119 70 - 130 33 35 0.200 m-Xylene & p-Xylene 0.2420 mg/Kg 121 70 - 130 34 35 0.100 0.1192 mg/Kg 119 70 - 130 35 o-Xylene

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1.4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-3063-1 MS

Matrix: Solid

Analysis Batch: 36341

Client Sample ID: SS01 Prep Type: Total/NA

Prep Batch: 36328

_	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U *1 F1	0.100	0.06254	F1	mg/Kg		62	70 - 130	
Toluene	<0.00201	U F1 F2	0.100	0.04666	F1	mg/Kg		46	70 - 130	

Client: Ensolum Project/Site: JDU DI 11 Ekalaka 183H

Job ID: 890-3063-1 SDG: 03E1558118

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

Client Sample ID: SS01 Lab Sample ID: 890-3063-1 MS **Matrix: Solid Prep Type: Total/NA Analysis Batch: 36341** Prep Batch: 36328

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U F1 F2	0.100	0.02857	F1	mg/Kg		28	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.201	0.05403	F1	mg/Kg		27	70 - 130	
o-Xylene	< 0.00201	U F1 F2	0.100	0.02669	F1	mg/Kg		27	70 - 130	

MS MS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 108 1,4-Difluorobenzene (Surr) 100 70 - 130

Lab Sample ID: 890-3063-1 MSD Client Sample ID: SS01 **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 36328 **Analysis Batch: 36341** Sample Sample Spike MSD MSD %Rec **RPD** Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit 0.0998 85 70 - 130 30 35 Benzene <0.00201 U *1 F1 0.08491 mg/Kg Toluene 0.0998 68 70 - 130 37 35 <0.00201 UF1F2 0.06815 F1 F2 mg/Kg 43 Ethylbenzene <0.00201 UF1F2 0.0998 0.04339 F1 F2 mg/Kg 70 - 130 41 35 m-Xylene & p-Xylene <0.00402 U F1 F2 0.200 0.07834 F1 F2 39 70 - 130 37 35 mq/Kq

0.03992 F1 F2

mg/Kg

0.0998

MSD MSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 100 1,4-Difluorobenzene (Surr) 108 70 - 130

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

<0.00201 U F1 F2

Lab Sample ID: MB 880-35610/1-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 35641** Prep Batch: 35610

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/28/22 13:29	09/29/22 20:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/28/22 13:29	09/29/22 20:05	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/28/22 13:29	09/29/22 20:05	1

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 09/28/22 13:29 09/29/22 20:05 1-Chlorooctane 70 - 130 123 70 - 130 09/28/22 13:29 09/29/22 20:05 o-Terphenyl 124

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 35641** Prep Batch: 35610 LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits 1000 881.1 88 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1075 mg/Kg 107 70 - 130

C10-C28)

o-Xylene

Eurofins Carlsbad

40

40

70 - 130

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-35610/2-A

Client: Ensolum Job ID: 890-3063-1 SDG: 03E1558118 Project/Site: JDU DI 11 Ekalaka 183H

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

Lab Sample ID: LCS 880-35610/2-A

Matrix: Solid

Analysis Batch: 35641

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35610

LCS LCS

%Recovery Qualifier Limits Surrogate 1-Chlorooctane 121 70 - 130 o-Terphenyl 119 70 - 130

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 880-35610/3-A **Prep Type: Total/NA**

Matrix: Solid

Analysis Batch: 35641 Prep Batch: 35610 LCSD LCSD RPD %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 1164 *1 mg/Kg 116 70 - 130 28 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1017 mg/Kg 102 70 - 130 6 20

C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: 880-19720-A-1-C MS **Client Sample ID: Matrix Spike**

Matrix: Solid

Prep Type: Total/NA Analysis Batch: 35641 Prep Batch: 35610 MS MS %Rec

Sample Sample Spike Result Qualifier Added Result Qualifier Limits Analyte Unit D %Rec <50.0 U F2 *1 Gasoline Range Organics 998 805.7 mg/Kg 78 70 - 130 (GRO)-C6-C10 998 Diesel Range Organics (Over <50.0 U 863.2 mg/Kg 85 70 - 130

C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 85 o-Terphenyl 79 70 - 130

Lab Sample ID: 880-19720-A-1-D MSD

Matrix: Solid

Analysis Batch: 35641

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

Prep Batch: 35610 %Rec **RPD**

Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Limits **RPD** Limit Analyte Unit %Rec Gasoline Range Organics <50.0 U F2 *1 999 1043 F2 102 70 - 130 26 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 999 1046 mg/Kg 103 70 - 130 19 20

C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	93		70 - 130

Client: Ensolum Job ID: 890-3063-1 Project/Site: JDU DI 11 Ekalaka 183H

SDG: 03E1558118

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35477/1-A

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analysis Batch: 35585

Matrix: Solid

MB MB

Analyte Result Qualifier RL Unit Analyzed Dil Fac D Prepared 5.00 09/28/22 13:20 Chloride <5.00 U mg/Kg

Lab Sample ID: LCS 880-35477/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35585

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits 250 90 - 110 Chloride 241.9 mg/Kg 97

Lab Sample ID: LCSD 880-35477/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35585

Spike LCSD LCSD %Rec **RPD** Added Result Qualifier Limits **RPD** Limit **Analyte** Unit %Rec Chloride 250 242.2 97 20 mg/Kg

Lab Sample ID: 890-3061-A-1-B MS **Client Sample ID: Matrix Spike Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35585

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 248 254.9 15.8 mg/Kg 96 90 - 110

Lab Sample ID: 890-3061-A-1-C MSD

Matrix: Solid

Analysis Batch: 35585

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Unit Limits RPD Result Qualifier %Rec Limit Chloride 15.8 248 255.9 97 20 mg/Kg 90 - 110 0

QC Association Summary

Client: Ensolum

Project/Site: JDU DI 11 Ekalaka 183H

Job ID: 890-3063-1 SDG: 03E1558118

GC VOA

Prep Batch: 36328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3063-1	SS01	Total/NA	Solid	5035	
890-3063-2	SS02	Total/NA	Solid	5035	
890-3063-3	SS03	Total/NA	Solid	5035	
890-3063-4	SS04	Total/NA	Solid	5035	
MB 880-36328/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36328/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36328/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3063-1 MS	SS01	Total/NA	Solid	5035	
890-3063-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 36341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3063-1	SS01	Total/NA	Solid	8021B	36328
890-3063-2	SS02	Total/NA	Solid	8021B	36328
890-3063-3	SS03	Total/NA	Solid	8021B	36328
890-3063-4	SS04	Total/NA	Solid	8021B	36328
MB 880-36328/5-A	Method Blank	Total/NA	Solid	8021B	36328
LCS 880-36328/1-A	Lab Control Sample	Total/NA	Solid	8021B	36328
LCSD 880-36328/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36328
890-3063-1 MS	SS01	Total/NA	Solid	8021B	36328
890-3063-1 MSD	SS01	Total/NA	Solid	8021B	36328

Analysis Batch: 36414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3063-1	SS01	Total/NA	Solid	Total BTEX	
890-3063-2	SS02	Total/NA	Solid	Total BTEX	
890-3063-3	SS03	Total/NA	Solid	Total BTEX	
890-3063-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 35610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3063-1	SS01	Total/NA	Solid	8015NM Prep	
890-3063-2	SS02	Total/NA	Solid	8015NM Prep	
890-3063-3	SS03	Total/NA	Solid	8015NM Prep	
890-3063-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-35610/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35610/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35610/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19720-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-19720-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3063-1	SS01	Total/NA	Solid	8015B NM	35610
890-3063-2	SS02	Total/NA	Solid	8015B NM	35610
890-3063-3	SS03	Total/NA	Solid	8015B NM	35610
890-3063-4	SS04	Total/NA	Solid	8015B NM	35610
MB 880-35610/1-A	Method Blank	Total/NA	Solid	8015B NM	35610
LCS 880-35610/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35610

QC Association Summary

Client: Ensolum Job ID: 890-3063-1 Project/Site: JDU DI 11 Ekalaka 183H

SDG: 03E1558118

GC Semi VOA (Continued)

Analysis Batch: 35641 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-35610/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35610
880-19720-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35610
880-19720-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35610

Analysis Batch: 35773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3063-1	SS01	Total/NA	Solid	8015 NM	
890-3063-2	SS02	Total/NA	Solid	8015 NM	
890-3063-3	SS03	Total/NA	Solid	8015 NM	
890-3063-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3063-1	SS01	Soluble	Solid	DI Leach	
890-3063-2	SS02	Soluble	Solid	DI Leach	
890-3063-3	SS03	Soluble	Solid	DI Leach	
890-3063-4	SS04	Soluble	Solid	DI Leach	
MB 880-35477/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35477/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35477/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3061-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3061-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3063-1	SS01	Soluble	Solid	300.0	35477
890-3063-2	SS02	Soluble	Solid	300.0	35477
890-3063-3	SS03	Soluble	Solid	300.0	35477
890-3063-4	SS04	Soluble	Solid	300.0	35477
MB 880-35477/1-A	Method Blank	Soluble	Solid	300.0	35477
LCS 880-35477/2-A	Lab Control Sample	Soluble	Solid	300.0	35477
LCSD 880-35477/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35477
890-3061-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	35477
890-3061-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35477

Project/Site: JDU DI 11 Ekalaka 183H

2

Client Sample ID: SS01

Client: Ensolum

Lab Sample ID: 890-3063-1

Matrix: Solid

Date Collected: 09/26/22 09:35 Date Received: 09/26/22 12:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36328	10/07/22 08:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36341	10/07/22 13:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36414	10/07/22 17:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			35773	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35610	09/28/22 13:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 22:13	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	35477	09/27/22 09:11	KS	EET MID
Soluble	Analysis	300.0		20			35585	09/28/22 15:41	CH	EET MID

Client Sample ID: SS02

Date Collected: 09/26/22 09:40

Lab Sample ID: 890-3063-2

Matrix: Solid

Date Collected: 09/26/22 09:40
Date Received: 09/26/22 12:02

	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	36328	10/07/22 08:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36341	10/07/22 13:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36414	10/07/22 17:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			35773	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35610	09/28/22 13:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 22:34	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	35477	09/27/22 09:11	KS	EET MID
Soluble	Analysis	300.0		20			35585	09/28/22 15:46	CH	EET MID

Client Sample ID: SS03

Date Collected: 09/26/22 09:45

Lab Sample ID: 890-3063-3

Matrix: Solid

Date Collected: 09/26/22 09:45
Date Received: 09/26/22 12:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36328	10/07/22 08:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36341	10/07/22 14:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36414	10/07/22 17:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			35773	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35610	09/28/22 13:29	DM	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	35641	09/29/22 22:56	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	35477	09/27/22 09:11	KS	EET MID
Soluble	Analysis	300.0		20			35585	09/28/22 15:51	CH	EET MID

Client Sample ID: SS04

Date Collected: 09/26/22 09:50

Lab Sample ID: 890-3063-4

Matrix: Solid

Date Received: 09/26/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36328	10/07/22 08:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36341	10/07/22 14:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36414	10/07/22 17:23	SM	EET MID

Lab Chronicle

Client: Ensolum Job ID: 890-3063-1
Project/Site: JDU DI 11 Ekalaka 183H SDG: 03E1558118

Client Sample ID: SS04

Lab Sample ID: 890-3063-4

Date Collected: 09/26/22 09:50

Date Received: 09/26/22 12:02

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			35773	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35610	09/28/22 13:29	DM	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	35641	09/29/22 23:17	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	35477	09/27/22 09:11	KS	EET MID
Soluble	Analysis	300.0		50			35585	09/28/22 15:56	CH	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: JDU DI 11 Ekalaka 183H

Job ID: 890-3063-1
SDG: 03E1558118

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NELAP		T104704400-22-24	06-30-23
The following analyte the agency does not		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which
and agency does not	oner certification.			
Analysis Method	Prep Method	Matrix	Analyte	
0 ,		Matrix Solid	Analyte Total TPH	

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13

Method Summary

Client: Ensolum

Project/Site: JDU DI 11 Ekalaka 183H

Job ID: 890-3063-1

SDG: 03E1558118

Method	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
3015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
3015NM Prep	Microextraction	SW846	EET MID
Ol Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: JDU DI 11 Ekalaka 183H

Job ID: 890-3063-1

SDG: 03E1558118

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3063-1	SS01	Solid	09/26/22 09:35	09/26/22 12:02	0.25'
890-3063-2	SS02	Solid	09/26/22 09:40	09/26/22 12:02	0.25'
890-3063-3	SS03	Solid	09/26/22 09:45	09/26/22 12:02	0.25'
890-3063-4	SS04	Solid	09/26/22 09:50	09/26/22 12:02	0.25'



Environment Testing
Xenco

Chain of Custody

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

Work Order No.		

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Project Manager:	Kajei	lenn	incis		Bill to: (ifd	ifferent)		Con	rre	ett Gr	een	Work	Order Comments	S
Company Name:	Ensoin				Company	Name:		X				Program: UST/PST PRP	☐ Brownfields [RRC Superfund
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City, State ZIP:	Carlshi	1. 1	M 88	220 7	City, State	ZIP:	C	arle	ber	1.NM	88220	Reporting: Level Level	III PST/UST	TRRP Level IV
Phone:	817.6	83.	2503	Email:			ca	12:05	31.1	m.ior)	Deliverables: EDD	ADaPT	Other:
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Project Number:	03E15	58/11	8	Routine	Rush	Co		1	-				None: N	IO DI Water: H₂O
Project Location:	32.3909 Meredi	8.7/	13.7032	Due Date:									Cool: Co	ol MeOH: Me
Sampler's Name:	Meredi	th R	oberts	TAT starts the	day received	by			110			1 1 1 1 1	HCL: HC	,
PO #:				the lab, if rec	eived by 4:30		2	1			macrates laide 1621 IV	11 MILLION BUILDING WILLIAM STATE OF ST	H ₂ SO ₄: F	1 : NaOH: Na
SAMPLE RECEIPT	Temp B		kes No	Wet Ice:	(es) N	0							H ₃ PO _s :1	HP
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Sample Custody Seals	s: Yes No	(N/A)	Temperature	-	3.8				.4.	890-	3063 Chain G	f Custody		ate+NaOH: Zn
Total Containers:		_	Corrected Te	emperature:	1		7	1 3	2		1 1	1 1 1 1	NaOH+A	Ascorbic Acid: SAPC
Sample Ident	tification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ # Comp Co		REX	Chlorites				Sai	mple Comments
5501		S	91241	0735	0.25	G	X	X	X				loese	unt #:
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Notice: Signature of this doc of service Eurofins Xenco w of Eurofins Xenco Aminim	vill be liable only for the	cost of samp	les and shall not a	assume any respo	nsibility for any	losses or exp	enses incu	rred by t	ne client if	such losses are du	e to circumstances	beyond the control		
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Revised Date: 08.25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3063-1 SDG Number: 03E1558118

Login Number: 3063 **List Source: Eurofins Carlsbad**

List Number: 1

Creator: Stutzman, Amanda

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

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3063-1 SDG Number: 03E1558118

Login Number: 3063 **List Source: Eurofins Midland** List Creation: 09/27/22 10:56 AM 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 <6mm (1/4").	N/A	

Eurofins Carlsbad

Released to Imaging: 6/16/2023 10:00:29 AM



Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3378-1

Laboratory Sample Delivery Group: 03E1558118 Client Project/Site: JRU DI 11 Ekalaka 823H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Ben Belill

RAMER

Authorized for release by: 11/11/2022 3:48:16 PM

Jessica Kramer, Project Manager (432)704-5440

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

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

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.

Client: Ensolum
Project/Site: JRU DI 11 Ekalaka 823H
Laboratory Job ID: 890-3378-1
SDG: 03E1558118

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Definitions/Glossary

Job ID: 890-3378-1 Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H

SDG: 03E1558118

Qualifiers

GC VOA

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

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description** *1 LCS/LCSD RPD exceeds control limits.

F1 MS and/or MSD recovery exceeds control limits.

Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

F1 MS and/or MSD recovery exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

Glossary

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

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

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

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac **Dilution Factor**

Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

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

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

Method Quantitation Limit

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

NC Not Calculated

MOI

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

NEG Negative / Absent POS Positive / Present

Practical Quantitation Limit PQL

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3378-1

SDG: 03E1558118

Job ID: 890-3378-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3378-1

Receipt

The samples were received on 11/4/2022 8:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH01 (890-3378-1), PH01A (890-3378-2), PH01B (890-3378-3) and PH01C (890-3378-4).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-39125 and analytical batch 880-39166 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD NM: The method blank for preparation batch 880-38890 and analytical batch 880-38805 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-38890 and analytical batch 880-38805 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike (MS) recoveries for preparation batch 880-38890 and analytical batch 880-38805 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance

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

HPLC/IC

Method 300 ORGFM 28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-38841 and analytical batch 880-39040 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Matrix: Solid

Lab Sample ID: 890-3378-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3378-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

Client Sample ID: PH01

Date Collected: 11/02/22 14:20 Date Received: 11/04/22 08:38

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/09/22 15:02	11/10/22 16:35	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/09/22 15:02	11/10/22 16:35	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/09/22 15:02	11/10/22 16:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/09/22 15:02	11/10/22 16:35	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/09/22 15:02	11/10/22 16:35	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/09/22 15:02	11/10/22 16:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			11/09/22 15:02	11/10/22 16:35	1
1,4-Difluorobenzene (Surr)	104		70 - 130			11/09/22 15:02	11/10/22 16:35	1
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/11/22 08:40	1
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/08/22 09:57	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		11/07/22 14:24	11/07/22 22:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 22:32	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 22:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			11/07/22 14:24	11/07/22 22:32	1
o-Terphenyl	111		70 - 130			11/07/22 14:24	11/07/22 22:32	1
Method: MCAWW 300.0 - Anions	, Ion Chromato	ography - S	oluble					
	,	0 10 7 7						

Client Sample ID: PH01A

Date Collected: 11/02/22 14:35 Date Received: 11/04/22 08:38

Sample Depth: 4'

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/09/22 15:02	11/10/22 16:55	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/09/22 15:02	11/10/22 16:55	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/09/22 15:02	11/10/22 16:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/09/22 15:02	11/10/22 16:55	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/09/22 15:02	11/10/22 16:55	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/09/22 15:02	11/10/22 16:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			11/09/22 15:02	11/10/22 16:55	

99.6

mg/Kg

5690

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11/11/22 13:39

Lab Sample ID: 890-3378-2

Matrix: Solid

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Job ID: 890-3378-1

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Client Sample ID: PH01A Lab Sample ID: 890-3378-2

Date Collected: 11/02/22 14:35 **Matrix: Solid** Date Received: 11/04/22 08:38

Sample Depth: 4'

Method: SW846 8021B - Volat	ile Organic Compounds (GC) (Continued)			
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	107	70 - 130	11/09/22 15:02	11/10/22 16:55	1

Method	I: TAL SOP Total BTEX - Total B	TEX Calculation						
Analyte		Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Iotal BTEX	<0.00399 U	0.00399	mg/Kg	11/11/22 08:40	1
_					
Method: SW846 8015 NM - Diesel R	ange Organics (DRO)	(GC)			

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/08/22 09:57	1

Method: SW846 8015B NM - Diese	I Range Orga	nics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		11/07/22 14:24	11/07/22 22:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/07/22 22:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/07/22 22:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	11/07/22 14:24	11/07/22 22:53	1
o-Terphenyl	105		70 - 130	11/07/22 14:24	11/07/22 22:53	1

Method: MCAWW 300.0 - Anions, I	lon Chromatography - Soli	uble					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11700	250	mg/Kg			11/11/22 13:44	50

Client Sample ID: PH01B Lab Sample ID: 890-3378-3

Date Collected: 11/02/22 15:00 **Matrix: Solid** Date Received: 11/04/22 08:38

Sample Depth: 6'

Analyte

Total TPH

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/09/22 15:02	11/10/22 17:16	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/09/22 15:02	11/10/22 17:16	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/09/22 15:02	11/10/22 17:16	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/09/22 15:02	11/10/22 17:16	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/09/22 15:02	11/10/22 17:16	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/09/22 15:02	11/10/22 17:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			11/09/22 15:02	11/10/22 17:16	1
1,4-Difluorobenzene (Surr)	106		70 - 130			11/09/22 15:02	11/10/22 17:16	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg		-	11/11/22 08:40	1

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Analyzed

11/08/22 09:57

RL

49.9

Unit

mg/Kg

Prepared

Dil Fac

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

Result Qualifier

<49.9 U

Job ID: 890-3378-1

Matrix: Solid

Dil Fac

Lab Sample ID: 890-3378-3

Analyzed

11/11/22 13:49

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Client Sample ID: PH01B

Date Collected: 11/02/22 15:00 Date Received: 11/04/22 08:38

Sample Depth: 6'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U *1	49.9	mg/Kg		11/07/22 14:24	11/07/22 23:15	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/07/22 23:15	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/07/22 23:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			11/07/22 14:24	11/07/22 23:15	1
o-Terphenyl	106		70 - 130			11/07/22 14:24	11/07/22 23:15	1

Client Sample ID: PH01C Lab Sample ID: 890-3378-4 Date Collected: 11/02/22 09:25 **Matrix: Solid**

RL

99.0

Unit

mg/Kg

D

Prepared

Result Qualifier

8960

Date Received: 11/04/22 08:38

Sample Depth: 10'

Analyte

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/09/22 15:02	11/10/22 17:37	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/09/22 15:02	11/10/22 17:37	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/09/22 15:02	11/10/22 17:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/09/22 15:02	11/10/22 17:37	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/09/22 15:02	11/10/22 17:37	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/09/22 15:02	11/10/22 17:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			11/09/22 15:02	11/10/22 17:37	1
1,4-Difluorobenzene (Surr)	102		70 - 130			11/09/22 15:02	11/10/22 17:37	1
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/11/22 08:40	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/08/22 09:57	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		11/07/22 14:24	11/07/22 23:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/07/22 23:36	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/07/22 23:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			11/07/22 14:24	11/07/22 23:36	1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3378-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

Client Sample ID: PH01C Lab Sample ID: 890-3378-4

Date Collected: 11/02/22 09:25 Matrix: Solid

Date Received: 11/04/22 08:38 Sample Depth: 10'

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Surrogate Summary

Job ID: 890-3378-1 Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate R
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3375-A-1-G MS	Matrix Spike	103	124	
890-3375-A-1-H MSD	Matrix Spike Duplicate	98	123	
890-3378-1	PH01	95	104	
890-3378-2	PH01A	96	107	
890-3378-3	PH01B	100	106	
890-3378-4	PH01C	93	102	
LCS 880-39125/1-A	Lab Control Sample	93	117	
LCSD 880-39125/2-A	Lab Control Sample Dup	96	118	
MB 880-39125/5-A	Method Blank	78	102	
Surrogate Legend				
BFB = 4-Bromofluoroben	zene (Surr)			

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

			- top types resumen
			Percent Surrogate Recovery (Acceptance Limits)
	1CO1	OTPH1	
Client Sample ID	(70-130)	(70-130)	
Matrix Spike	96	92	
Matrix Spike Duplicate	89	85	
PH01	102	111	
PH01A	96	105	
PH01B	100	106	
PH01C	95	102	
Lab Control Sample	97	103	
Lab Control Sample Dup	95	98	
Method Blank	99	109	
	Matrix Spike Matrix Spike Duplicate PH01 PH01A PH01B PH01C Lab Control Sample Lab Control Sample Dup	Client Sample ID (70-130) Matrix Spike 96 Matrix Spike Duplicate 89 PH01 102 PH01A 96 PH01B 100 PH01C 95 Lab Control Sample 97 Lab Control Sample Dup 95	Client Sample ID (70-130) (70-130) Matrix Spike 96 92 Matrix Spike Duplicate 89 85 PH01 102 111 PH01A 96 105 PH01B 100 106 PH01C 95 102 Lab Control Sample 97 103 Lab Control Sample Dup 95 98

1CO = 1-Chlorooctane OTPH = o-Terphenyl

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Released to Imaging: 6/16/2023 10:00:29 AM

Client: Ensolum Job ID: 890-3378-1 SDG: 03E1558118 Project/Site: JRU DI 11 Ekalaka 823H

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39125/5-A

Matrix: Solid Analysis Batch: 39166 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39125

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/09/22 15:02	11/10/22 10:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/09/22 15:02	11/10/22 10:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/09/22 15:02	11/10/22 10:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/09/22 15:02	11/10/22 10:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/09/22 15:02	11/10/22 10:45	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/09/22 15:02	11/10/22 10:45	1

MB MB

MD MD

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78	70 - 130	11/09/22 15:02	11/10/22 10:45	1
1,4-Difluorobenzene (Surr)	102	70 - 130	11/09/22 15:02	11/10/22 10:45	1

Lab Sample ID: LCS 880-39125/1-A

Matrix: Solid

Analysis Batch: 39166

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39125

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09971		mg/Kg		100	70 - 130	
Toluene	0.100	0.08537		mg/Kg		85	70 - 130	
Ethylbenzene	0.100	0.08335		mg/Kg		83	70 - 130	
m-Xylene & p-Xylene	0.200	0.1712		mg/Kg		86	70 - 130	
o-Xylene	0.100	0.08418		mg/Kg		84	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	93	70 - 130
1,4-Difluorobenzene (Surr)	117	70 - 130

Lab Sample ID: LCSD 880-39125/2-A

Matrix: Solid

Analysis Batch: 39166

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

Prep Type: Total/NA

Prep Batch: 39125

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1062		mg/Kg		106	70 - 130	6	35
Toluene	0.100	0.08905		mg/Kg		89	70 - 130	4	35
Ethylbenzene	0.100	0.08676		mg/Kg		87	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1790		mg/Kg		90	70 - 130	4	35
o-Xylene	0.100	0.08832		mg/Kg		88	70 - 130	5	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1.4-Difluorobenzene (Surr)	118		70 - 130

Lab Sample ID: 890-3375-A-1-G MS

Matrix: Solid

Analysis Batch: 39166

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 39125

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.0998	0.08311		mg/Kg		83	70 - 130	
Toluene	<0.00201	U F1	0.0998	0.05842	F1	mg/Kg		58	70 - 130	

Prep Batch: 39125

QC Sample Results

Job ID: 890-3378-1 Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

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

Lab Sample ID: 890-3375-A-1-G MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid Analysis Batch: 39166

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00201 UF1 0.0998 0.04412 F1 44 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00402 UF1 0.200 0.08864 F1 mg/Kg 44 70 - 130 0.0998 o-Xylene <0.00201 UF1 0.04425 F1 43 70 - 130 mg/Kg

MS MS

Surrogate	%Recovery Qu	ualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	124		70 - 130

Lab Sample ID: 890-3375-A-1-H MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 39166

Prep Type: Total/NA Prep Batch: 39125 Sample Sample Spike MSD MSD RPD

Result Qualifier Result Qualifier RPD Limit Analyte babbA Unit %Rec Limits 0.0990 Benzene <0.00201 U 0.08896 mg/Kg 90 70 - 130 7 35 0.06914 F1 Toluene <0.00201 UF1 0.0990 mg/Kg 69 70 - 130 17 35 Ethylbenzene <0.00201 UF1 0.0990 0.05231 F1 52 70 - 130 17 35 mg/Kg 0.198 0.1046 F1 70 - 130 35 m-Xylene & p-Xylene <0.00402 U F1 mg/Kg 52 17 0.0990 <0.00201 UF1 0.05454 F1 54 70 - 130 21 o-Xylene mg/Kg

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	123		70 - 130

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

Lab Sample ID: MB 880-38890/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 38805

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 19:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 19:18	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 19:18	1

MB MB

Surrogate	%Recovery Qua	lifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99	70 - 130	11/07/22 14:24	11/07/22 19:18	1
o-Terphenyl	109	70 - 130	11/07/22 14:24	11/07/22 19:18	1

Lab Sample ID: LCS 880-38890/2-A **Matrix: Solid**

Matrix: Solid							Prep 7	Type: Total/NA	4
Analysis Batch: 38805							Prep	Batch: 38890	0
	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	1000	822.4		mg/Kg		82	70 - 130		_
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	911.7		mg/Kg		91	70 - 130		
C10-C28)									

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Client Sample ID: Lab Control Sample

Prep Batch: 38890

Lab Sample ID: LCSD 880-38890/3-A

Lab Sample ID: 890-3372-A-1-C MS

Limits

Job ID: 890-3378-1 Project/Site: JRU DI 11 Ekalaka 823H

SDG: 03E1558118

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

LCS LCS

%Recovery Qualifier

Lab Sample ID: LCS 880-38890/2-A

Matrix: Solid

Matrix: Solid

Surrogate

Client: Ensolum

Analysis Batch: 38805

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38890

1-Chlorooctane 97 70 - 130 o-Terphenyl 103 70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38890

Analysis Batch: 38805 Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit 1000 1052 *1 105 70 - 13024 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 810.0 mg/Kg 81 70 - 13012 20

C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 95 70 - 130 1-Chlorooctane 98 70 - 130 o-Terphenyl

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 38890

Sample Sample MS MS Spike Added Result Qualifier Analyte Result Qualifier Unit D %Rec Limits Gasoline Range Organics <50.0 U *1 F1 997 1396 F1 mg/Kg 137 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 997 895.2 mg/Kg 90 70 - 130

C10-C28)

Matrix: Solid

Analysis Batch: 38805

MS MS

%Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 96 o-Terphenyl 92 70 - 130

Lab Sample ID: 890-3372-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 38805

Prep Type: Total/NA

Prep Batch: 38890

RPD %Rec

Sample Sample MSD MSD Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Gasoline Range Organics U *1 F1 999 122 <50.0 1246 70 - 130 11 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 999 820.4 mg/Kg 82 70 - 130 20

C10-C28)

MSD MSD

Surrogate	%Recovery Q	ualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	85		70 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: Matrix Spike

QC Sample Results

Client: Ensolum Job ID: 890-3378-1 SDG: 03E1558118 Project/Site: JRU DI 11 Ekalaka 823H

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38841/1-A

Matrix: Solid

Analysis Batch: 39040

MR MR

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/11/22 11:35	1

Lab Sample ID: LCS 880-38841/2-A

Matrix: Solid

Analysis Batch: 39040

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	259.7		mg/Kg		104	90 - 110	

Lab Sample ID: LCSD 880-38841/3-A

Matrix: Solid

Analysis Batch: 39040

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	251.3		mg/Kg		101	90 - 110	3	20

Lab Sample ID: 890-3377-A-19-B MS

Matrix: Solid

Analysis Batch: 39040

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	31.3	F1	249	306.6	F1	mg/Kg		111	90 - 110	

Lab Sample ID: 890-3377-A-19-C MSD

Released to Imaging: 6/16/2023 10:00:29 AM

Matrix: Solid

Analysis Batch: 39040

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	31.3	F1	249	301.6		mg/Kg		109	90 - 110	2	20

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3378-1 SDG: 03E1558118

GC VOA

Prep Batch: 39125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3378-1	PH01	Total/NA	Solid	5035	
890-3378-2	PH01A	Total/NA	Solid	5035	
890-3378-3	PH01B	Total/NA	Solid	5035	
890-3378-4	PH01C	Total/NA	Solid	5035	
MB 880-39125/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39125/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39125/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3375-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
890-3375-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 39166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3378-1	PH01	Total/NA	Solid	8021B	39125
890-3378-2	PH01A	Total/NA	Solid	8021B	39125
890-3378-3	PH01B	Total/NA	Solid	8021B	39125
890-3378-4	PH01C	Total/NA	Solid	8021B	39125
MB 880-39125/5-A	Method Blank	Total/NA	Solid	8021B	39125
LCS 880-39125/1-A	Lab Control Sample	Total/NA	Solid	8021B	39125
LCSD 880-39125/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39125
890-3375-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	39125
890-3375-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39125

Analysis Batch: 39283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3378-1	PH01	Total/NA	Solid	Total BTEX	
890-3378-2	PH01A	Total/NA	Solid	Total BTEX	
890-3378-3	PH01B	Total/NA	Solid	Total BTEX	
890-3378-4	PH01C	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3378-1	PH01	Total/NA	Solid	8015B NM	38890
890-3378-2	PH01A	Total/NA	Solid	8015B NM	38890
890-3378-3	PH01B	Total/NA	Solid	8015B NM	38890
890-3378-4	PH01C	Total/NA	Solid	8015B NM	38890
MB 880-38890/1-A	Method Blank	Total/NA	Solid	8015B NM	38890
LCS 880-38890/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38890
LCSD 880-38890/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38890
890-3372-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	38890
890-3372-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38890

Prep Batch: 38890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3378-1	PH01	Total/NA	Solid	8015NM Prep	
890-3378-2	PH01A	Total/NA	Solid	8015NM Prep	
890-3378-3	PH01B	Total/NA	Solid	8015NM Prep	
890-3378-4	PH01C	Total/NA	Solid	8015NM Prep	
MB 880-38890/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38890/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

Client: Ensolum Job ID: 890-3378-1 Project/Site: JRU DI 11 Ekalaka 823H

SDG: 03E1558118

GC Semi VOA (Continued)

Prep Batch: 38890 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-38890/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3372-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3372-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3378-1	PH01	Total/NA	Solid	8015 NM	
890-3378-2	PH01A	Total/NA	Solid	8015 NM	
890-3378-3	PH01B	Total/NA	Solid	8015 NM	
890-3378-4	PH01C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3378-1	PH01	Soluble	Solid	DI Leach	_
890-3378-2	PH01A	Soluble	Solid	DI Leach	
890-3378-3	PH01B	Soluble	Solid	DI Leach	
890-3378-4	PH01C	Soluble	Solid	DI Leach	
MB 880-38841/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38841/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38841/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3377-A-19-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3377-A-19-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 39040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3378-1	PH01	Soluble	Solid	300.0	38841
890-3378-2	PH01A	Soluble	Solid	300.0	38841
890-3378-3	PH01B	Soluble	Solid	300.0	38841
890-3378-4	PH01C	Soluble	Solid	300.0	38841
MB 880-38841/1-A	Method Blank	Soluble	Solid	300.0	38841
LCS 880-38841/2-A	Lab Control Sample	Soluble	Solid	300.0	38841
LCSD 880-38841/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38841
890-3377-A-19-B MS	Matrix Spike	Soluble	Solid	300.0	38841
890-3377-A-19-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38841

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3378-1 SDG: 03E1558118

Lab Sample ID: 890-3378-1

Matrix: Solid

Client Sample ID: PH01
Date Collected: 11/02/22 14:20

Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	39125	11/09/22 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39166	11/10/22 16:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39283	11/11/22 08:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			38964	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/07/22 22:32	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	38841	11/07/22 10:27	KS	EET MID
Soluble	Analysis	300.0		20			39040	11/11/22 13:39	CH	EET MID

Client Sample ID: PH01A

Date Collected: 11/02/22 14:35

Date Received: 11/04/22 08:38

Lab Sample ID: 890-3378-2

Matrix: Solid

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 5.01 g 5 mL 39125 11/09/22 15:02 MNR EET MID Total/NA 8021B 11/10/22 16:55 **EET MID** Analysis 1 5 mL 5 mL 39166 MNR Total/NA Total BTEX 39283 11/11/22 08:40 Analysis SM **EET MID** 1 Total/NA Analysis 8015 NM 38964 11/08/22 09:57 SM **EET MID** Total/NA Prep 8015NM Prep 38890 11/07/22 14:24 10.02 g 10 mL DM **EET MID** Total/NA Analysis 8015B NM 1 uL 1 uL 38805 11/07/22 22:53 SM **EET MID** Soluble 5.01 g 11/07/22 10:27 Leach DI Leach 50 mL 38841 KS **EET MID**

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Client Sample ID: PH01B

Analysis

300.0

Soluble

Date Collected: 11/02/22 15:00

Date Received: 11/04/22 08:38

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39040

11/11/22 13:44

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Matrix: Solid

EET MID

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	39125	11/09/22 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39166	11/10/22 17:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39283	11/11/22 08:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			38964	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/07/22 23:15	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	38841	11/07/22 10:27	KS	EET MID
Soluble	Analysis	300.0		20			39040	11/11/22 13:49	CH	EET MID

Client Sample ID: PH01C

Date Collected: 11/02/22 09:25

Date Received: 11/04/22 08:38

Lab Sample	ID:	890-3378-4
		Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	39125	11/09/22 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39166	11/10/22 17:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39283	11/11/22 08:40	SM	EET MID

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Lab Chronicle

Client: Ensolum Job ID: 890-3378-1 Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Client Sample ID: PH01C Lab Sample ID: 890-3378-4 Date Collected: 11/02/22 09:25

Matrix: Solid

Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			38964	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/07/22 23:36	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	38841	11/07/22 10:27	KS	EET MID
Soluble	Analysis	300.0		1			39040	11/11/22 13:54	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3378-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, bu	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes for
the agency does not of	fer certification.	•	, , ,	·,,
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	,
0 ,		Matrix Solid	, , ,	

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Method Summary

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3378-1

SDG: 03E1558118

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

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Sample Summary

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3378-1

SDG: 03E1558118

1558118	

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3378-1	PH01	Solid	11/02/22 14:20	11/04/22 08:38	2'
890-3378-2	PH01A	Solid	11/02/22 14:35	11/04/22 08:38	4'
890-3378-3	PH01B	Solid	11/02/22 15:00	11/04/22 08:38	6'
890-3378-4	PH01C	Solid	11/02/22 09:25	11/04/22 08:38	10'

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10

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Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020.2

eurofins

Project Manager

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Ben Belill Ensolum 3122 National Parks Hwy	Hwy		Bill to: (if different) Company Name: Address:	ferent)	XTo Gar	Garrett Green XTO Energy	en		Work Order Comments	Work Order Comments ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
ional Parks I	Hwy		Company I	vame:	XT) Energ	Jy		Program: UST/PST PRP Br	
ional Parks I	łwy		Address:		,					
					370	3104 E. Green St	een St.		State of Project:	
Carlsbad, NM 88220			City, State ZIP:	ZIP:	Car	Isbad N	VM 882		Reporting: Level II Level III PST/UST	PST/UST TRRP Level IV
303-887-2946		Email	Garrett G	reen@E	Vuoxx	lobil cc	m		Deliverables: EDD AD	ADaPT Other:
DI 11 Ekala	ka 823H	Turi	Around					ANALYSIS REQ	UEST	Preservative Codes
03E15581	18	✓ Routine	Rush	C P	g 8					None: NO DI Water: H ₂ O
		Due Date:								Cool: Cool MeOH: Me
Connor Whit	tman	TAT starts th	ne day receive	d by						
		the lab, if re	ceived by 4:3		13	H				H ₂ S0 ₄ : H ₂ NaOH: Na
Temp Blank:	Yes No	Wet Ice:	(S)	<u></u>						H₃PO₄: HP
red No	Thermometer	D	Thm-0	1						NaHSO ₄ : NABIS
Yes No MA	-	ctor:	.7.	Ľ						Na ₂ S ₂ O ₃ : NaSO ₃
Yes No NIA		Reading:		Y	ES (E		21)	Chain of Cus	Tody III	Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC
Matrix	Date Sampled	Time Sampled	Depth	omp Co			BTEX (8			Sample Comments
S	11/2/2022		2' (×	×			Incident ID:
ဟ	11/2/2022		4' (×	×			NAPP2224527297
တ	11/2/2022		6'			×	×			Cost Center:
S	11/3/2022		10'			×	×			2104541001
										AFE:
										DD.2019.06665.CAP.CMP
				-/	/	0	2			
					-	1	1			
200.8 / 6020: al(s) to be analy		CRA 13PI	PLP 6010:	11 AI 8RCR/	Sb A	s Ba E As Ba			4g Mn MoNiK Se A √liSe Ag TIU	\g SiO ₂ Na Sr Tl Sn U V Zn Hg: 1631/245.1/7470/7471
d relinquishment	of samples consti	tutes a valid pu	rchase order fi	om client	company	to Eurof	ins Xenc	affiliates and subcontractors. It	assigns standard terms and conditions	
of \$85.00 will be	st of samples and applied to each p	shall not assun roject and a cha	arge of \$5 for e	ach sampl	le submi	ted to Eu	rofins Xe	but not analyzed. These terms w	ill be enforced unless previously negotiat	led.
	2946 2946 Connor White Connor White No	roject Name: JRU DI 11 Ekalaka 823H roject Name: O#: AMPLE RECEIPT Temp Blank: O#: Connor Whitman O#: Connor Whitman O#: Connor Whitman Confect Custody Seals: Yes No Matrix PHO1 PHO1 PHO1A PHO1A PHO1A PHO1C Total 200.7 / 6010 Eurofins Xenco will be liable only for the cost of samples and Eurofins Xenco will be liable only for the cost of samples and Eurofins Xenco will be applied to each p	2946 Email: 2946 Email: 2946 Turn O3E1558118 Connor Whitman The mometer ID: Solve Date: Correction Factor: Solve No Thermometer ID: Corrected Temperature: Corrected Temperature: Sampled Sampled Sampled Sampled Sampled Solve Sol	2946 Email: Garrett Gruy, State 2946 Email: Garrett Gruy, State 2946 Email: Garrett Gruy, State Connor Whitman TAT Lans the day receive the lab, if received by 4:3 Routine Rush Due Date: TAT starts the day received the lab, if received by 4:3 No Thermometer ID: Temperature Reading: S No MAA Correction Factor: S No MAA Corrected Temperature: Date Sampled Sampled Sampled Sampled Sampled S 11/2/2022 2:20 S 11/2/2022 2:35 S 11/2/2022 3:00 S 11/2/2022 3:00 S 11/3/2022 9:25 O.8 / 6020: BRCRA 13PPM Texas O.8 / 6020: TCLP / SPLP 6010: or the cost of samples and shall not assume any response of \$5 fore of \$55.00 will be applied to each project and a charge of \$5 fore	Connor Whitman Temperature Correction Factor: Sampled Sa	Dig 11 Ekalaka 823H Turn Around Pres.	Connor Whitman Tarn starts the day received by 4:30pm	2946 Email: Garrett Green@ExxonMobil.com Email: Garrett Green@ExxonMobil.com DI 11 Ekalaka 823H Turn Around O3E1558118 Due Date: Routine Rush Code Thr. D. Date No MAN Correction Factor: Time Paraller Reading: L. Date No N	DI 11 Ekalaka 823H	Control Cont

SAMPLE RECEIPT

Total Containers: Sample Custody Seals: Cooler Custody Seals: Samples Received Intact: Sampler's Name:

Project Location:

Project Number:

Project Name:

City, State ZIP: Address: Company Name:

Carlsbad NM 88220 Phone 575-988-3199 Fax 575-988-3199 Eurofins Carlsbad 1089 N Canal St.

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Chain of Custody Record

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Environment Testing

State Zip TX, 79701 PH01B (890-3378-3) Empty Kit Relinquished by Deliverable Requested I II III IV Other (specify) Possible Hazard Identification Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central. LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central. LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central. LLC. PH01C (890-3378-4) PH01A (890-3378-2) PH01 (890-3378-1) Sample Identification - Client ID (Lab ID 432-704-5440(Tel) JRU DI 11 Ekalaka 823H Midland Client Information elinquished by 1211 W Florida Ave elinquished by elinquished by urofins Environment Testing South Centr nipping/Receiving (Sub Contract Lab Custody Seal No Project #: 89000093 Date/Time Date/Time Primary Deliverable Rank Due Date Requested 11/10/2022 Phone TAT Requested (days): Sample Date 11/2/22 11/2/22 11/2/22 11/2/22 Mountain 15 00 Mountain 14 35 Mountain Mountain 09 25 Sample 14 20 G=grab) (C=comp Sample Preservation Code: Type Company Company Company Matrix Solid Solid Solid Solid Jessica Kramer@et.eurofinsus com
Accreditations Required (See note): E-Mail Kramer Jessica Lab PM Time: NELAP - Texas Perform MS/MSD (Yes or No) Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Monte Special Instructions/QC Requirements Cooler Temperature(s) °C and Other Remarks Received by × × 8015MOD_NM/8015NM_S_Prep (MOD) Full TPH × \times × × × × B015MOD_Calc × 300_ORGFM_28D/DI_LEACH Chloride × × × × × × × 8021B/5035FP Calc (MOD) BTEX Analysis Requested Total_BTEX_GCV × × × State of Origin New Mexico Carrier Tracking No(s) Method of Shipment: Date/Time Date/Time Total Number of containers A HCL
B NaOH
C Zn Acetate
D Nitric Acid
F Meolor
G Amchior
H Ascorbic Acid
I Ice
J DI Water
K EDTA
L EDA COC No: 890-1010 1 Page 1 of 1 Preservation Codes 890-3378-1 Special Instructions/Note Company Company None
None
Nane
Nane
Nazo4S
Nazo4S
Nazo2S
Nazo2S
Nazo2S
Nazo2S
Nazo2S
Nazo2S
Nazo3
Nazo2S
Nazo3
Nazo2S
Nazo4
Nazo4
TSP Dodecahydrate
Acetone
MCAA
N pH 4-5
Trizma Ver: 06/08/2021 Company other (specify)

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3378-1 SDG Number: 03E1558118

Login Number: 3378 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3378-1 SDG Number: 03E1558118

Login Number: 3378 **List Source: Eurofins Midland** List Number: 2

List Creation: 11/07/22 09:10 AM

Creator: Teel, Brianna

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

<6mm (1/4").



Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3379-1

Laboratory Sample Delivery Group: 03E1558118 Client Project/Site: JRU DI 11 Ekalaka 823H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Ben Belill

RAMER

Authorized for release by: 11/11/2022 3:48:15 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

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.

Client: Ensolum
Project/Site: JRU DI 11 Ekalaka 823H
Laboratory Job ID: 890-3379-1
SDG: 03E1558118

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Definitions/Glossary

Job ID: 890-3379-1 Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H

SDG: 03E1558118

Qualifiers

GC VOA

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

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

*1 LCS/LCSD RPD exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

MS and/or MSD recovery exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

Glossary

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

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

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

DFR Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

Decision Level Concentration (Radiochemistry) DLC

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

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3379-1

SDG: 03E1558118

Job ID: 890-3379-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3379-1

Receipt

The samples were received on 11/4/2022 8:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH02 (890-3379-1), PH02A (890-3379-2) and PH02B (890-3379-3).

GC VOA

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-39017 and analytical batch 880-39062 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-38974 and analytical batch 880-39056 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC

Method 300 ORGFM 28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-38841 and 880-38841 and analytical batch 880-39040 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

 Client: Ensolum
 Job ID: 890-3379-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

Client Sample ID: PH02

Lab Sample ID: 890-3379-1

Date Collected: 11/03/22 10:00

Matrix: Solid

Date Collected: 11/03/22 10:00 Date Received: 11/04/22 08:38

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U F1	0.00202	mg/Kg		11/08/22 14:12	11/09/22 22:44	1
Toluene	<0.00202	U F1	0.00202	mg/Kg		11/08/22 14:12	11/09/22 22:44	1
Ethylbenzene	<0.00202	U F1	0.00202	mg/Kg		11/08/22 14:12	11/09/22 22:44	1
m-Xylene & p-Xylene	<0.00403	U F1	0.00403	mg/Kg		11/08/22 14:12	11/09/22 22:44	1
o-Xylene	<0.00202	U F1	0.00202	mg/Kg		11/08/22 14:12	11/09/22 22:44	1
Xylenes, Total	<0.00403	U F1	0.00403	mg/Kg		11/08/22 14:12	11/09/22 22:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			11/08/22 14:12	11/09/22 22:44	1
1,4-Difluorobenzene (Surr)	111		70 - 130			11/08/22 14:12	11/09/22 22:44	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			11/10/22 11:59	1
: Method: SW846 8015 NM - Diese			•	3 3				
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (G	GC)	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier	•		<u>D</u>	Prepared	Analyzed 11/09/22 14:04	Dil Fac
Analyte Total TPH	Result <50.0	Qualifier U	50.0	Unit	<u>D</u>	Prepared		
Analyte Total TPH Method: SW846 8015B NM - Die	Result <50.0 sel Range Orga	Qualifier U	RL 50.0	Unit mg/Kg	<u> </u>	<u> </u>	11/09/22 14:04	1
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte	Result <50.0 sel Range Orga Result	Qualifier Unics (DRO) Qualifier	RL 50.0 (GC)	Unit mg/Kg	<u>D</u>	Prepared	11/09/22 14:04 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics	Result <50.0 sel Range Orga	Qualifier Unics (DRO) Qualifier	RL 50.0	Unit mg/Kg	<u> </u>	<u> </u>	11/09/22 14:04	1
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10	Result <50.0 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	RL 50.0 (GC)	Unit mg/Kg Unit mg/Kg	<u> </u>	Prepared 11/08/22 10:44	11/09/22 14:04 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics	Result <50.0 sel Range Orga Result <50.0	Qualifier U nics (DRO) Qualifier U	(GC) RL 50.0	Unit mg/Kg	<u> </u>	Prepared	11/09/22 14:04 Analyzed 11/09/22 11:24	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 sel Range Orga Result <50.0	Qualifier U nics (DRO) Qualifier U U *1	(GC) RL 50.0	Unit mg/Kg Unit mg/Kg	<u> </u>	Prepared 11/08/22 10:44	11/09/22 14:04 Analyzed 11/09/22 11:24	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0	Qualifier U nics (DRO) Qualifier U U *1	RL 50.0 (GC) RL 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 11/08/22 10:44 11/08/22 10:44	11/09/22 14:04 Analyzed 11/09/22 11:24 11/09/22 11:24	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U nics (DRO) Qualifier U U *1 U	RL 50.0 (GC) RL 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 11/08/22 10:44 11/08/22 10:44 11/08/22 10:44	Analyzed 11/09/22 11:24 11/09/22 11:24 11/09/22 11:24	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <50.0	Qualifier U nics (DRO) Qualifier U U *1 U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	Unit mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 11/08/22 10:44 11/08/22 10:44 11/08/22 10:44 Prepared	Analyzed 11/09/22 14:04 Analyzed 11/09/22 11:24 11/09/22 11:24 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <50.0	Qualifier U nics (DRO) Qualifier U U*1 U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 11/08/22 10:44 11/08/22 10:44 11/08/22 10:44 Prepared 11/08/22 10:44	Analyzed 11/09/22 11:24 11/09/22 11:24 11/09/22 11:24 Analyzed 11/09/22 11:24	Dil Fac 1 1 Dil Fac 1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U nics (DRO) Qualifier U U*1 U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 11/08/22 10:44 11/08/22 10:44 11/08/22 10:44 Prepared 11/08/22 10:44	Analyzed 11/09/22 11:24 11/09/22 11:24 11/09/22 11:24 Analyzed 11/09/22 11:24	Dil Fac 1 1 Dil Fac

Client Sample ID: PH02A Lab Sample ID: 890-3379-2

Date Collected: 11/03/22 10:10 Date Received: 11/04/22 08:38

Sample Depth: 4'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/08/22 14:12	11/09/22 23:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/08/22 14:12	11/09/22 23:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/08/22 14:12	11/09/22 23:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/08/22 14:12	11/09/22 23:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/08/22 14:12	11/09/22 23:04	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/08/22 14:12	11/09/22 23:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			11/08/22 14:12	11/09/22 23:04	

Eurofins Carlsbad

Matrix: Solid

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Job ID: 890-3379-1

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Client Sample ID: PH02A Lab Sample ID: 890-3379-2

Date Collected: 11/03/22 10:10 Matrix: Solid Date Received: 11/04/22 08:38

Sample Depth: 4'

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1 4-Difluorobenzene (Surr)	102	70 _ 130	11/08/22 14:12	11/09/22 23:04	1

Method: TAI	SOP Total BTEX	- Total BTEX Calculation
MICHIOU. IAL	- JOI TOTAL DIEX	- Iolai bi LA Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399	mg/Kg			11/10/22 11:59	1

Mathed CMO4C CO4E NM Discal Dance Occasion (DI	201	1001	
Method: SW846 8015 NM - Diesel Range Organics (DI	くしょいし	((36.)	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/10/22 09:40	1

Method: SW846 8015B NM - Diesel Range Organics	(DRO)	(GC)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/08/22 10:44	11/09/22 13:59	1
Diesel Range Organics (Over	<50.0	U *1	50.0	mg/Kg		11/08/22 10:44	11/09/22 13:59	1
C10-C28) OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/08/22 10:44	11/09/22 13:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94	70 - 130	11/08/22 10:44	11/09/22 13:59	1
o-Terphenyl	95	70 - 130	11/08/22 10:44	11/09/22 13:59	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1190		49.5	mg/Kg			11/11/22 14:03	10

Client Sample ID: PH02B Lab Sample ID: 890-3379-3

Date Collected: 11/03/22 10:15 Date Received: 11/04/22 08:38

Sample Depth: 6'

incured criticity could	no organio comp	Julius (Ju	,					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/08/22 14:12	11/09/22 23:25	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/08/22 14:12	11/09/22 23:25	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/08/22 14:12	11/09/22 23:25	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		11/08/22 14:12	11/09/22 23:25	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/08/22 14:12	11/09/22 23:25	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/08/22 14:12	11/09/22 23:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			11/08/22 14:12	11/09/22 23:25	1
1 4 Diffuorabanzana (Surr)	112		70 120			11/00/22 11:12	11/00/22 22:25	1

4-Bromofluorobenzene (Surr)	103	 70 - 130	11/08/22 14:12	11/09/22 23:25	1
1,4-Difluorobenzene (Surr)	113	70 - 130	11/08/22 14:12	11/09/22 23:25	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/10/22 11:59	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC	Method:	: SW846 8015 N	M - Diesel R	ange Ord	ianics (DRO)	(GC
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Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	147		50.0	mg/Kg			11/10/22 09:40	1

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Matrix: Solid

Client Sample Results

 Client: Ensolum
 Job ID: 890-3379-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

Client Sample ID: PH02B

Date Collected: 11/03/22 10:15
Date Received: 11/04/22 08:38

Sample Depth: 6'

Lab	Sample	ID:	890	-33	79-3	3

_	 	-	 -	_	-	_	_	-	_	_
				M	atr	ix		S	oli	d

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/08/22 10:44	11/09/22 14:21	1
Diesel Range Organics (Over C10-C28)	147	*1	50.0	mg/Kg		11/08/22 10:44	11/09/22 14:21	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/08/22 10:44	11/09/22 14:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			11/08/22 10:44	11/09/22 14:21	1
o-Terphenyl	89		70 - 130			11/08/22 10:44	11/09/22 14:21	1
- Method: MCAWW 300.0 - Anions	, Ion Chromato	ography - S	oluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
		•	50.0	mg/Kg			11/10/22 21:39	10

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Released to Imaging: 6/16/2023 10:00:29 AM

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DFBZ = 1,4-Difluorobenzene (Surr)

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3379-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		DED4	DED 74	Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3379-1	PH02	101	111	
890-3379-1 MS	PH02	98	117	
890-3379-1 MSD	PH02	111	108	
890-3379-2	PH02A	95	102	
890-3379-3	PH02B	103	113	
LCS 880-39017/1-A	Lab Control Sample	94	112	
LCSD 880-39017/2-A	Lab Control Sample Dup	105	114	
MB 880-39017/5-A	Method Blank	81	99	
MB 880-39063/5-A	Method Blank	78	100	
Surrogate Legend				

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-3379-1	PH02	95	96	
390-3379-1 MS	PH02	87	83	
390-3379-1 MSD	PH02	89	85	
390-3379-2	PH02A	94	95	
390-3379-3	PH02B	88	89	
_CS 880-38974/2-A	Lab Control Sample	89	92	
_CSD 880-38974/3-A	Lab Control Sample Dup	113	118	
MB 880-38974/1-A	Method Blank	100	102	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3379-1 SDG: 03E1558118 Project/Site: JRU DI 11 Ekalaka 823H

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39017/5-A

Matrix: Solid Analysis Batch: 39062 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39017

	MB	MB					
Analyte	Result	Qualifier	RL	Unit [) Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg	11/08/22 14:12	11/09/22 22:22	1
Toluene	<0.00200	U	0.00200	mg/Kg	11/08/22 14:12	11/09/22 22:22	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	11/08/22 14:12	11/09/22 22:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	11/08/22 14:12	11/09/22 22:22	1
o-Xylene	<0.00200	U	0.00200	mg/Kg	11/08/22 14:12	11/09/22 22:22	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	11/08/22 14:12	11/09/22 22:22	1

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130	_	11/08/22 14:12	11/09/22 22:22	1
1,4-Difluorobenzene (Surr)	99		70 - 130		11/08/22 14:12	11/09/22 22:22	1

Lab Sample ID: LCS 880-39017/1-A

Matrix: Solid

Analysis Batch: 39062

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 39017

Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09303 mg/Kg 93 70 - 130 Toluene 0.100 0.08208 mg/Kg 82 70 - 130 0.100 0.07968 80 Ethylbenzene mg/Kg 70 - 130 0.200 0.1618 81 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.08103 70 - 130 o-Xylene mg/Kg

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	94	70 - 130
1,4-Difluorobenzene (Surr)	112	70 - 130

Lab Sample ID: LCSD 880-39017/2-A

Matrix: Solid

Analysis Batch: 39062

Client Sample ID: Lab Control Sample Dup	Client Sam	ple ID: Lab	Control	Sample Dup
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Prep Type: Total/NA

Prep Batch: 39017

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09770		mg/Kg		98	70 - 130	5	35
Toluene	0.100	0.08811		mg/Kg		88	70 - 130	7	35
Ethylbenzene	0.100	0.08842		mg/Kg		88	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.1791		mg/Kg		90	70 - 130	10	35
o-Xylene	0.100	0.08946		mg/Kg		89	70 - 130	10	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	105	70 - 130
1.4-Difluorobenzene (Surr)	114	70 - 130

Lab Sample ID: 890-3379-1 MS

Matrix: Solid

Analysis Batch: 39062

Client Sample ID: PH02 Prep Type: Total/NA

Prep Batch: 39017

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U F1	0.0996	0.06995		mg/Kg		70	70 - 130	
Toluene	<0.00202	U F1	0.0996	0.06018	F1	mg/Kg		60	70 - 130	

QC Sample Results

Client: Ensolum Job ID: 890-3379-1 SDG: 03E1558118 Project/Site: JRU DI 11 Ekalaka 823H

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

Lab Sample ID: 890-3379-1 MS **Matrix: Solid**

Analysis Batch: 39062

Client Sample ID: PH02 Prep Type: Total/NA Prep Batch: 39017

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00202	U F1	0.0996	0.05819	F1	mg/Kg		58	70 - 130	
m-Xylene & p-Xylene	<0.00403	U F1	0.199	0.1203	F1	mg/Kg		60	70 - 130	
o-Xylene	<0.00202	U F1	0.0996	0.06114	F1	mg/Kg		61	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	98	70 - 130
1,4-Difluorobenzene (Surr)	117	70 - 130

Lab Sample ID: 890-3379-1 MSD

Client Sample ID: PH02 **Matrix: Solid** Prep Type: Total/NA Prep Batch: 39017 Analysis Batch: 39062

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U F1	0.0990	0.06590	F1	mg/Kg		67	70 - 130	6	35
Toluene	<0.00202	U F1	0.0990	0.06727	F1	mg/Kg		68	70 - 130	11	35
Ethylbenzene	<0.00202	U F1	0.0990	0.07379		mg/Kg		75	70 - 130	24	35
m-Xylene & p-Xylene	<0.00403	U F1	0.198	0.1525		mg/Kg		77	70 - 130	24	35
o-Xylene	<0.00202	U F1	0.0990	0.08253		mg/Kg		83	70 - 130	30	35

MSD MSD

MR MR

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	111	70 - 130
1,4-Difluorobenzene (Surr)	108	70 - 130

Lab Sample ID: MB 880-39063/5-A

Matrix: Solid

Analysis Batch: 39062

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 39063

	IND	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/09/22 08:53	11/09/22 11:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/09/22 08:53	11/09/22 11:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/09/22 08:53	11/09/22 11:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/09/22 08:53	11/09/22 11:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/09/22 08:53	11/09/22 11:32	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/09/22 08:53	11/09/22 11:32	1

MB MB Dil Fac Surrogate Qualifier Limits Prepared Analyzed %Recovery 4-Bromofluorobenzene (Surr) 70 - 130 11/09/22 08:53 78 11/09/22 11:32 100 70 - 130 11/09/22 08:53 11/09/22 11:32 1,4-Difluorobenzene (Surr)

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

Lab Sample ID: MB 880-38974/1-A

<50.0 U

Matrix: Solid

Gasoline Range Organics

Prep Type: Total/NA Analysis Batch: 39056 Prep Batch: 38974 мв мв Result Qualifier RL Unit Prepared

50.0

mg/Kg

(GRO)-C6-C10

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Client Sample ID: Method Blank

11/09/22 08:44

11/08/22 10:44

Client: Ensolum

Job ID: 890-3379-1

Client Sample ID: Method Blank

SDG: 03E1558118

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

Lab Sample ID: MB 880-38974/1-A **Matrix: Solid**

Project/Site: JRU DI 11 Ekalaka 823H

Analysis Batch: 39056

Prep Type: Total/NA

Prep Batch: 38974

MB MB

Analyte Result Qualifier RL Unit Prepared Analyzed <50.0 U 50.0 11/08/22 10:44 11/09/22 08:44 Diesel Range Organics (Over mg/Kg C10-C28) 50.0 11/08/22 10:44 11/09/22 08:44 Oll Range Organics (Over C28-C36) <50.0 U mg/Kg

Dil Fac

MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 100 70 - 130 11/08/22 10:44 11/09/22 08:44 102 70 - 130 11/08/22 10:44 11/09/22 08:44 o-Terphenyl

Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 39056

Lab Sample ID: LCS 880-38974/2-A

Prep Type: Total/NA

Prep Batch: 38974

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1081 108 70 - 130 mg/Kg (GRO)-C6-C10 1000 820.0 Diesel Range Organics (Over mg/Kg 82 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	89	70 - 130
o-Terphenyl	92	70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 39056

Lab Sample ID: LCSD 880-38974/3-A

Prep Type: Total/NA Prep Batch: 38974

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	933.7		mg/Kg		93	70 - 130	15	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1075	*1	mg/Kg		108	70 - 130	27	20
C10-C28)									

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 113 70 - 130 o-Terphenyl 118 70 - 130

Lab Sample ID: 890-3379-1 MS

Matrix: Solid

Analysis Batch: 39056

Client Sample ID: PH02 Prep Type: Total/NA

Prep Batch: 38974

Spike MS MS %Rec Sample Sample Result Qualifier Added Result Qualifier %Rec Analyte Unit Limits <50.0 U 997 70 - 130 Gasoline Range Organics 767.1 77 mg/Kg (GRO)-C6-C10 997 942.4 Diesel Range Organics (Over <50.0 U *1 mg/Kg 95 70 - 130

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	83		70 - 130

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3379-1

SDG: 03E1558118

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

Lab Sample ID: 890-3379-1 MSD Client Sample ID: PH02 **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 39056 Prep Batch: 38974

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<50.0	U	999	759.2		mg/Kg		76	70 - 130	1	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<50.0	U *1	999	978.9		mg/Kg		98	70 - 130	4	20

C10-C28)

Client: Ensolum

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	85		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38841/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39040

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/11/22 11:35	1

Lab Sample ID: LCS 880-38841/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39040

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	259.7		mg/Kg		104	90 - 110	

Lab Sample ID: LCSD 880-38841/3-A Client Sample ID: Lab Control Sample Dup Matrix: Solid **Prep Type: Soluble**

Analysis Batch: 39040

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	251.3		mg/Kg	_	101	90 - 110	3	20	

Lab Sample ID: 890-3377-A-9-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39040

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	6830	F1	2500	9619	F1	ma/Ka		112	90 - 110	

Lab Sample ID: 890-3377-A-9-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39040

Analysis Baton, 60040												
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	6830	F1	2500	9469		ma/Ka		106	90 - 110	2	20	

Job ID: 890-3379-1

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3377-A-19-B MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39040

Sample Sample Spike MS MS %Rec Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits Chloride 31.3 F1 249 306.6 F1 mg/Kg 111 90 - 110

Lab Sample ID: 890-3377-A-19-C MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39040

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	31.3	F1	249	301.6		mg/Kg		109	90 - 110	2	20

Lab Sample ID: MB 880-38844/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39042

мв мв

Analyte	Result Q	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	J	5.00	mg/Kg			11/10/22 21:18	1

Lab Sample ID: LCS 880-38844/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39042

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	256.5		mg/Kg		103	90 - 110	

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Lab Sample ID: LCSD 880-38844/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39042

	Opike	LOOD	LOGD				/orcec		IXI D	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	261.8		mg/Kg		105	90 - 110	2	20	

ICSD ICSD

Lab Sample ID: 890-3379-3 MS Client Sample ID: PH02B **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39042

•	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	1150		2500	3750		ma/Ka		104	90 110	

Lab Sample ID: 890-3379-3 MSD Client Sample ID: PH02B **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39042

Released to Imaging: 6/16/2023 10:00:29 AM

7, 6.0 24.0 600 12	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	1150	· <u></u> -	2500	3644	-	mg/Kg		100	90 - 110	3	20	

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Client: Ensolum
Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3379-1 SDG: 03E1558118

GC VOA

Prep Batch: 39017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-1	PH02	Total/NA	Solid	5035	
890-3379-2	PH02A	Total/NA	Solid	5035	
890-3379-3	PH02B	Total/NA	Solid	5035	
MB 880-39017/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39017/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39017/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3379-1 MS	PH02	Total/NA	Solid	5035	
890-3379-1 MSD	PH02	Total/NA	Solid	5035	

Analysis Batch: 39062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-1	PH02	Total/NA	Solid	8021B	39017
890-3379-2	PH02A	Total/NA	Solid	8021B	39017
890-3379-3	PH02B	Total/NA	Solid	8021B	39017
MB 880-39017/5-A	Method Blank	Total/NA	Solid	8021B	39017
MB 880-39063/5-A	Method Blank	Total/NA	Solid	8021B	39063
LCS 880-39017/1-A	Lab Control Sample	Total/NA	Solid	8021B	39017
LCSD 880-39017/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39017
890-3379-1 MS	PH02	Total/NA	Solid	8021B	39017
890-3379-1 MSD	PH02	Total/NA	Solid	8021B	39017

Prep Batch: 39063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39063/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 39234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-1	PH02	Total/NA	Solid	Total BTEX	
890-3379-2	PH02A	Total/NA	Solid	Total BTEX	
890-3379-3	PH02B	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 38974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-1	PH02	Total/NA	Solid	8015NM Prep	
890-3379-2	PH02A	Total/NA	Solid	8015NM Prep	
890-3379-3	PH02B	Total/NA	Solid	8015NM Prep	
MB 880-38974/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38974/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38974/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3379-1 MS	PH02	Total/NA	Solid	8015NM Prep	
890-3379-1 MSD	PH02	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-1	PH02	Total/NA	Solid	8015B NM	38974
890-3379-2	PH02A	Total/NA	Solid	8015B NM	38974
890-3379-3	PH02B	Total/NA	Solid	8015B NM	38974
MB 880-38974/1-A	Method Blank	Total/NA	Solid	8015B NM	38974
LCS 880-38974/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38974

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 Client: Ensolum
 Job ID: 890-3379-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

GC Semi VOA (Continued)

Analysis Batch: 39056 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method P	rep Batch
LCSD 880-38974/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38974
890-3379-1 MS	PH02	Total/NA	Solid	8015B NM	38974
890-3379-1 MSD	PH02	Total/NA	Solid	8015B NM	38974

Analysis Batch: 39117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-1	PH02	Total/NA	Solid	8015 NM	
890-3379-2	PH02A	Total/NA	Solid	8015 NM	
890-3379-3	PH02B	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-1	PH02	Soluble	Solid	DI Leach	
890-3379-2	PH02A	Soluble	Solid	DI Leach	
MB 880-38841/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38841/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38841/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3377-A-9-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3377-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-3377-A-19-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3377-A-19-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 38844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-3	PH02B	Soluble	Solid	DI Leach	
MB 880-38844/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38844/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38844/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3379-3 MS	PH02B	Soluble	Solid	DI Leach	
890-3379-3 MSD	PH02B	Soluble	Solid	DI Leach	

Analysis Batch: 39040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-1	PH02	Soluble	Solid	300.0	38841
890-3379-2	PH02A	Soluble	Solid	300.0	38841
MB 880-38841/1-A	Method Blank	Soluble	Solid	300.0	38841
LCS 880-38841/2-A	Lab Control Sample	Soluble	Solid	300.0	38841
LCSD 880-38841/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38841
890-3377-A-9-B MS	Matrix Spike	Soluble	Solid	300.0	38841
890-3377-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38841
890-3377-A-19-B MS	Matrix Spike	Soluble	Solid	300.0	38841
890-3377-A-19-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38841

Analysis Batch: 39042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-3	PH02B	Soluble	Solid	300.0	38844
MB 880-38844/1-A	Method Blank	Soluble	Solid	300.0	38844
LCS 880-38844/2-A	Lab Control Sample	Soluble	Solid	300.0	38844
LCSD 880-38844/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38844

Eurofins Carlsbad

Page 15 of 27

Released to Imaging: 6/16/2023 10:00:29 AM

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Client: Ensolum Job ID: 890-3379-1 Project/Site: JRU DI 11 Ekalaka 823H

SDG: 03E1558118

HPLC/IC (Continued)

Analysis Batch: 39042 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3379-3 MS	PH02B	Soluble	Solid	300.0	38844
890-3379-3 MSD	PH02B	Soluble	Solid	300.0	38844

Project/Site: JRU DI 11 Ekalaka 823H

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3379-3

Date Collected: 11/03/22 10:00

Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	39017	11/08/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39062	11/09/22 22:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39234	11/10/22 11:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			39117	11/09/22 14:04	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38974	11/08/22 10:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39056	11/09/22 11:24	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38841	11/07/22 10:27	KS	EET MID
Soluble	Analysis	300.0		1			39040	11/11/22 13:58	CH	EET MID

Lab Sample ID: 890-3379-2 **Client Sample ID: PH02A**

Date Collected: 11/03/22 10:10 Date Received: 11/04/22 08:38

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 5.01 g 5 mL 39017 11/08/22 14:12 MNR EET MID Total/NA 8021B 5 mL 39062 11/09/22 23:04 **EET MID** Analysis 1 5 mL MNR Total/NA Total BTEX 39234 11/10/22 11:59 SM Analysis 1 **EET MID** Total/NA Analysis 8015 NM 39117 11/10/22 09:40 **EET MID** Total/NA 38974 11/08/22 10:44 Prep 8015NM Prep 10.00 g 10 mL DM EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 39056 11/09/22 13:59 ΑJ **EET MID** Soluble 5.05 g 11/07/22 10:27 KS Leach DI Leach 50 mL 38841 **EET MID** Soluble Analysis 300.0 10 39040 11/11/22 14:03 СН **EET MID**

Client Sample ID: PH02B

Date Collected: 11/03/22 10:15 Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	39017	11/08/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39062	11/09/22 23:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39234	11/10/22 11:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			39117	11/10/22 09:40	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38974	11/08/22 10:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39056	11/09/22 14:21	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38844	11/07/22 10:37	KS	EET MID
Soluble	Analysis	300.0		10			39042	11/10/22 21:39	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3379-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, bu	It the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes for
the agency does not of	fer certification.	•	, , ,	·, ·····
the agency does not of Analysis Method	fer certification. Prep Method	Matrix	Analyte	,
0 ,		Matrix Solid	Analyte Total TPH	

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Method Summary

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3379-1 SDG: 03E1558118

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

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Sample Summary

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3379-1

SDG: 03E1558118

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received	D
890-3379-1	PH02	Solid	11/03/22 10:00	11/04/22 08:38	2'
890-3379-2	PH02A	Solid	11/03/22 10:10	11/04/22 08:38	4'
890-3379-3	PH02B	Solid	11/03/22 10:15	11/04/22 08:38	6'

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Relinquished by: (Signature)

Received by: (Signature)

Ce/h/11

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Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020.2

Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-73 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

Project Manager: Be	Ben Belill			Bill to: (if different)	rent)	Garret	Garrett Green	Š	OW	Work Order Comments
	Ensolum			Company Name		XTO Energy	nergy		Program: UST/PST 🗌 PI	PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
	3122 National Parks Hwy	wy		Address:		3104 E. Green St	E. Gree	en St.	State of Project:	
e ZIP:	Carlsbad, NM 88220			City, State ZIP:		Carlsb	Carlsbad, NM 88220	M 882	Reporting: Level II] Lev	Reporting: Level II 🗌 Level III 📗 PST/UST 📗 TRRP 📗 🛮 Level IV 📗
	303-887-2946		Email:	Garrett Green@ExxonMobil.com	en@Exx	onMot	oil con	j.	Deliverables: EDD	ADaPT Other:
Project Name:	JRU DI 11 Ekalaka 823H	a 823H	Turn	Turn Around					ANALYSIS REQUEST	Preservative Codes
Project Number:	03E1558118		Routine	Rush	Pres. Code					None: NO DI Water: H ₂ O
Project Location:		0	Due Date:							Cool: Cool MeOH: Me
Sampler's Name:	Connor Whitman		TAT starts the	day received	by					HCL: HC HNO3: HN
PO#			the lab, if rece	the lab, if received by 4:30pm			L			H ₂ S0 ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank:	Yes (No)	Wet Ice:	Res No	nete	0)				H₃PO₄: HP
Samples Received Intact:	(See No	Thermometer ID:		TIME S	4 aran	300.				NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes No WA	Correction Factor:	Эr.	S. Q-	Pa	PA: (Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	NO (NIA	Temperature Reading:	ading:	7.7		(EF)	Caro Chain of Custody	Zn Acetate+NaOH: Zn
Total Containers:		Corrected Temperature	erature:	W	<u>r</u>	IDES	15)	3021	66.00	NaOH+Ascorbic Acid: SAPC
Sample Identification	cation Matrix	Date Sampled	Time Sampled	Depth Comp	ab/ # of mp Cont	CHLOR	TPH (80	BTEX (Sample Comments
PH02	S	11/3/2022	10:00	2' Gr	Grab 1	×	×	×		Incident ID:
PH02A	S	11/3/2022	10:10	4' Gr	Grab 1	×	×	×		NAPP2224527297
РН02В	S	11/3/2022	10:15	6; Gr	Grab 1	×	×	×		Cost Center:
										2104541001
										AFE:
										DD.2019.06665.CAP.CMP
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Total 200.7 / 6010 Tele Method(s) and N	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	8RCI	RA 13PPM	RA 13PPM Texas 11 AI S	1 Al Sb	Sb As	Ba Be	Be Cd	b As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se A Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl ∪ l	Ag SiO ₂ Na Sr Tl Sn U V Zn Hg: 1631/245.1/7470/7471
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	ment and relinguishment of		-111							

Eurotins Carlsbad

Chain of Custody Record

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Environment Testing

State, Zip: TX 79701 PH02A (890-3379-2) Vote: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central. LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central. LLC. PH02B (890-3379-3) PH02 (890-3379-1) Sample Identification - Client ID (Lab ID) Possible Hazard Identification Carlsbad NM 88220 Phone. 575-988-3199 Fax 575-988-3199 JRU DI 11 Ekalaka 823H l32-704-5440(Tel) eliverable Requested | II III IV Other (specify) Midland 211 W Florida Ave linquished by mpty Kit Relinquished by oject Name Custody Seals Intact.

∆ Yes ∆ No linquished by: urofins Environment Testing South Centr nquished by nipping/Receiving lient Information 6 (Sub Contract Lab) Custody Seal No Project #: 89000093 Primary Deliverable Rank 2 Due Date Requested 11/10/2022 ⊃ate/Time **№**0 TAT Requested (days) Sampler hone: 11/3/22 11/3/22 11/3/22 Mountain 10 10 Mountain Mountain 10 15 Sample 10 00 G=grab) (C=comp, Sample Type Preservation Code: Company Company (W=water S=solid, O=waste/oil, Matrix Solid Solid Solid Jessica Kramer@et.eurofinsus com Kramer Jessica NELAP - Texas Ime Perform MS/MSD (Yes or No) Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Special Instructions/QC Requirements Cooler Temperature(s) °C and Other Remarks Received by × × 8015MOD_NM/8015NM_S_Prep (MOD) Full TPH × × × × 8015MOD_Calc × × × 300_ORGFM_28D/DI_LEACH Chloride × 8021B/6036FP Calc (MOD) BTEX × × Analysis Requested × Total_BTEX_GCV × × New Mexico Carrier Tracking No(s) State of Origin Method of Shipment: Date/Time Date/I ime Date/Time Total Number of containers J DI Water K EDTA L EDA A HCL
B NaOH
C TA Acetate
D Nitric Acid
E NaHSO4
F MeOH
G Amchlor
H Ascorbic Acid COC No 890-1010 1 Preservation Codes 390-3379-1 Page 1 of 1 Special Instructions/Note: < _ Company Company 1 Hexane
1 None
2 AsNaO2
3 Na2O4S
3 Na2SO3
3 H2SO4
5 H2SO4
J Acetone
J Acetone
J MCAA
W PH 4-5
W PH 4-5 other (specify) Months

Ver: 06/08/2021

1089 N Canal St. Carlsbad NM 88220 Phone: 575-988-3199 Fax 575-988-3199 **Eurofins Carlsbad**

Chain of Custody Record

💸 eurofins

Environment Testing

Filolia: 0/0-acc.claa Lax 0/0-acc-olaa																			
Client Information (Sub Contract Lab)	Sampler			Lab PM Krame	Lab PM Kramer Jessica	ssica						Carrier Tracking No(s)	Track	ng No	(s)			COC No 890-1010 4	
	Phone [.]			E-Mail Jessi	E-Mail Jessica Kramer@et.eurofinsus	ımer@	et.eu	rofins	us com	3		State of Origin New Mexico	f Origi	اد ه				Page Page 4 of 6	
Company Eurofins Environment Testing South Centr					Accreditations Required (See not NELAP - Louisiana NELA	creditations Required ELAP - Louisiana	Require	d (See not	Dote).	ote). AP - Texas	L							Job #: 890-3380-1	
Address. 1211 W Florida Ave	Due Date Requested 11/10/2022	ď							Anal	alysis Requested	Req	Jest	2					Preservation Codes	es M Hexane
City Midland	TAT Requested (days):	ys):			7		\dashv	\dashv	\dashv	T							7	B NaOH	N None O AsNaO2
State, Zip: TX 79701						TPH											the Sand	Nitric Acid NaHSO4	P Na2O4S Q Na2SO3 R Na2SO3
Phone: 432-704-5440(TeI)	PO#:)	D) Full											· · · · · · · · · · · · · · · · · · ·	Amchlor Ascorbic Acir	S H2SO4 T TSP Dodecahydrate
Email	WO #:				70.0075 VISO	p (MO	Chloric	Chioric									S	l ice J Di Water	U Acetone V MCAA W nH 4.5
Project Name JR Oil - MLMU Battery	Project # 88000039				SOURCE STREET	_S_Pro		EACH									tainer	L EDA	Y Trizma Z other (specify)
Site	SSOW#:				2005 - 7520000	015NM											of cor	Other	
		Sample	Sample Type (C=comp.	Matrix (W=water S=solid,	d Filtered form MS/N	5MOD_NM/8	1B/5035FP_	ORGFM_28	MOD_Calc	1-1						- Andreide	al Number		
Comple Inchinication - Chemic ID (Edulis)	Sample Date	X	Preservation Code	BT=Tissue, A=Air) tion Code:	7000 mm	8	1966	mad -	944	1	TE TE	4	<u>.</u>	jany)	504 ³	2714	×π	u	pecial instructions/Note.
AH-3 (4-4 5') (890-3380-28)	11/3/22	Mountain		Solid		×	×	×	×								43	Garage	
AH-4 (5-1") (890-3380-29)	11/3/22	Mountain		Solid		×	×	×	×									364.00	
AH-4 (1-1 5') (890-3380-30)	11/3/22	Mountain		Solid		×	×	×	×								Mark A		
AH-4 (2-2 5') (890-3380-31)	11/3/22	Mountain		Solid		×	×	×	×								nusc)		
AH-4 (3-3 5') (890-3380-32)	11/3/22	Mountain		Solid		×	×	×	Ŷ								/ cases /		
AH-4 (4-4 5") (890-3380-33)	11/3/22	Mountain		Solid		×	×	×	×										
AH-5 (5-1') (890-3380-34)	11/3/22	Mountain		Solid		×	×	×	×								- 20		
AH-5 (1-1 5') (890-3380-35)	11/3/22	Mountain		Solid		×	×	×	×						-			3 ()	***************************************
AH-5 (2-2 5') (890-3380-36)	11/3/22	Mountain		Solid		×	×	×	×								-		
Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.	nt Testing South Centra bove for analysis/tests/ antral LLC attention im	al LLC places t matrix being ar mediately If al	he ownership on alyzed the satisfied the satisfied the satisfied actions are satisfied to the satisfied the satisf	of method ana imples must be creditations an	lyte & ac shipped current	credital back to to date	tion con the Eu	nplianc irofins the sig	e upor Enviro Ined C	out sunment	bcontr Festing Custor	act lab South ly attes	oratori Centr sting to	es Thall LL(al LL(said	is san Clabo	iple shatory of	ipmer or other to Eu	nt is forwarded under ch er instructions will be pro rofins Environment Test	pon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the vironment Testing South Central. LLC laboratory or other instructions will be provided. Any changes to d Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central. LLC.
Possible Hazard Identification Unconfirmed					Sa	Sample Disposal (A	le Disposal (A	sal (A fee	may	be a	assessed if san Disposal By Lah	ed in	san	ples	□are	etai.	fee may be assessed if samples are retained longer than 1	than 1 month)
Deliverable Requested I II III IV Other (specify)	Primary Deliverable Rank	ble Rank 2			S	Special Instructions/Q	nstruc	tions	റ	Requirements	emer	ß	ļ						
Empty Kit Relinquished by		Date			Time	7					\exists		Method of Shipment:	of SI	ipmer	77		00 to 100 to	THE REPORT OF THE PERSON NAMED IN COLUMN TO THE PERSON NAMED IN CO
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Custody Seals Intact: Custody Seal No						Coole	Cooler Temperature(s)	erature	റ്	and Other Remarks	her Re	narks							
					l	I													Ver: 06/08/2021

Eurofins Carlsbad

1089 N Canal St. Carlsbad NM 88220 Phone. 575-988-3199 Fax 575-988-3199

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Chain of Custody Record

	Sampler:			I oh DM	1	l	l	l			ĺ		2			l	l	l			1							
Client Information (Sub Contract Lab)				Kramer Jessica	er Je	ssica				1		1	ā	Carrier Tracking No(s)	CKIII	No(s)				890-10	890-1010 3	ω						
Shipping/Receiving	iona			Jessica Kramer@et.eurofinsus com	Sa Tr	mer(@et.	eurof	nsu	SCO	3	ĺ	Nev	State of Origin. New Mexico	g, g					Page Page	Page Page 3 of 6	f 6						
Eurofins Environment Testing South Centr					Accreditations Required (See note) NELAP - Louisiana NELAP -	tations P - L	s Requ	ana (NEL D	AP e	Texas	S								-068 # 90r	Job # 890-3380-1	7						
Address. 1211 W Florida Ave	Due Date Requested 11/10/2022	ä							⊳	Analys	Sis	Rec	Requested	ğΙ						Pre	ĕVa	Preservation Codes	ò					- 1
City: Midland	TAT Requested (days)	ys)					\exists		\neg							\exists	\exists				HCL NaOH	į.	_		None AsNaO2	v w		
State Zip TX, 79701				erinnete Str		TPH													enterditation	m U O	Zn Acetate Nitric Acid NaHSO4	cid tate	_	D T Q	Na2O4S Na2SO3	ωσι		
Phone: 432-704-5440(Tel)	PO#:) Full		е											sa erenen st enerellerine		MeOH Amchlor	¥			Na2S2O3 H2SO4	de Ca	Na2S2O3 H2SO4 TSP Dodecahodrata	-
Email	WO#					(MOD		lorid											i i i i i i i i i i i i i i i i i i i	- I	Ascorbic /	Ascorbic Acid ce			Acetone	u 200	yulan	q
Project Name	Project#:					Prep (H Ch											ers	х <u>-</u>	DI Wate	4			pH 4-5			
JR Oil - MLMU Battery	88000039				di constanti	_S_F	TEX	.EAC											tain		EDA				Inzma other (specify)	pecify	_	
Site:	SSOW#					015NN	Caic B	BD/DI_L	ev.		•				*******				of cor	Other:	7							
			Sample Type	Matrix (Wawater	Filtered rm MS/N	OD_NM/8	/6036FP_	RGFM_2	BTEX_G	OD_Calc							****		Number									- 1
Sample Identification - Client ID (Lab ID)	Sample Date	Time	G=grab) B	1	ROSSESSON	8015	8021	300_	Tota	8015									Tota		Sp	Special Instructions/Note	Ins	Tuc	ions	No.	e	
		X	Preservation Code:	on Code:	X			- Y - Y - Y - Y - Y - Y - Y - Y - Y - Y						90.9					X	W 1		H	I	1	I	H	11	
AH-2 (5-1) (890-3380-19)	11/3/22	Mountain		Solid	-	×	×	×	×	×									7 mm									
AH-2 (1-1 5') (890-3380-20)	11/3/22	Mountain		Solid		×	×	×	×	×														l				Ì
AH-2 (2-2 5') (890-3380-21)	11/3/22	Mountain		Solid		×	×	×	×	×																l		
AH-2 (3-3 5') (890-3380-22)	11/3/22	Mountain		Solid	\dashv	×	×	×	×	×									747									
AH-2 (4-4 5) (890-3380-23)	11/3/22	Mountain		Solid		×	×	×	×	×									A]									1
AH-3 (5-1') (890-3380-24)	11/3/22	Mountain		Solid		×	×	×	×	×				\neg					*							Ì		
AH-3 (1-1 5') (890-3380-25)	11/3/22	Mountain		Solid		×	×	×	×	×									41									
AH-3 (2-2 5) (890-3380-26)	11/3/22	Mountain		Solid		×	×	×	×	×									4									
AH-3 (3-3 5') (890-3380-27)	11/3/22	Mountain		Solid		×	×	×	×	×									إنقار			ļ						
vote Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compilance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.	Testing South Centra ve for analysis/tests/ ral LLC attention im	al LLC places i matrix being ar mediately If a	the ownership o nalyzed the san il requested acc	f method analy nples must be s reditations are	te & achipped	creditude to dat	ation of the lie retu	compli Eurof	ance ins Er	upon hviron ed Ch	out su ment	bcont Testin	ract la g Sou dy att	borate th Cer	ories ntral l	This: LC la	sampl borate	e ship bry or ce to	ment other Euro	is for instru	warder ictions	will by	e prov	in-of-	custor Any th Ce	dy If chang	the jes to	ĺ
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Environment Testing

💸 eurofins

Chain of Custody Record

Eurofins Carlsbad1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199 Environment Testing

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Client Information (Sub Contract Lab)	Samplei			Krame	Kramer Jessica	ssica					Car	Carrier Tracking No(s)	cking	Vo(s)			യറ	COC No 890-1010 2	
Client Contact: Shipping/Receiving	Phone			E-Mail Jessi	E-Mail Jessica Kramer@et.eurofinsus com	amer@	et.eu	ofins	us con	5	Sta	State of Origin	Si gi				0 0	Page:	
Company: Eurofins Environment Testing South Centr					Accredi NELA	Accreditations Required (See r	Require	d (See	note)	note) AP - Texas	ł		l	ı			٥ ي	Job #:	
Address 1211 W Florida Ave	Due Date Requested	٥						.					ı	-			+	Preservation Codes	es
City Midland	TAT Requested (days):	ys):					_	┨,							_				
State Zip TX 79701					7, 7	TPH										7408705	m D C	D Nitric Acid	P Na2O4S Q Na2SO3
Phone: 432-704-5440(Tel)	PO#:) Full										(28, -1907)	ெர		X NazszO3 S H2SO4 T TSP Dodecahydrate
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			Sample	Matrix	ered Sa MS/MS	_NM/801	35FP_Ca	FM_28D EX_GCV	_Calc						**********		mber of		
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	(C=comp,	S=solid, O=waste/oil, BT=Tissue, A=Air)	ASSESSMENT CO.	3015MC			3015MC								otal N	Special In	structions (Note
		\mathbb{X}	1000	ion Code:	30000		Hard.	7-46		Joseph		444		otte	1		4	Special III	Change manifestante
H-10 (890-3380-10)	11/3/22	Mountain		Solid		×	×	×	×							: W	-	The second secon	
H-11 (890-3380-11)	11/3/22	Mountain		Solid		×	<u>×</u>	×	×		-					-77 Nas	44	***************************************	
H-12 (890-3380-12)	11/3/22	Mountain		Solid		×	×	×	×										
H-13 (890-3380-13)	11/3/22	Mountain		Solid		×	×	×	×								2		***************************************
AH-1 (5-1") (890-3380-14)	11/3/22	Mountain		Solid		×	×	×	×								-		
AH-1 (1-1 5') (890-3380-15)	11/3/22	Mountain		Solid		×	×	×	×							···			
AH-1 (2-2 5') (890-3380-16)	11/3/22	Mountain		Solid		×	×	×	×						\perp	7 - 85			
AH-1 (3-3 5') (890-3380-17)	11/3/22	Mountain		Solid		×	×	×	×							- 20 F	- K	The state of the s	
AH-1 (4-4 5') (890-3380-18)	11/3/22	Mountain		Solid		×	×	×	×								, (ala)		***************************************
Note Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC alaboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC.	Testing South Centra we for analysis/tests/r tral, LLC attention imr	al, LLC places matrix being a mediately If a	the ownership on alyzed the sai	of method ana mples must be creditations are	yte & ac shipped current	creditat back to to date	ion con the Eu	ipliance rofins E the sign	upon o invironr	out subcoment Tes	ontract ting So	aboratuth Cer	ories ntral L	This sa	ample orator dicanc	shipm or ot e to E	ent is her in urofin	structions will be prosections of the structions will be prosections.	nain-of-custody If the ovided Any changes to ing South Central LLC.
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Custody Seals Intact: Custody Seal No						Cooler	Cooler Temperature(s)	rature(s)°Car	°C and Other Remarks	Remar	ô							
																			**

Ver 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3379-1 SDG Number: 03E1558118

Login Number: 3379 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3379-1 SDG Number: 03E1558118

List Source: Eurofins Midland

Creator: Teel, Brianna

Login Number: 3379

List Number: 2 List Creation: 11/07/22 09:10 AM

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



.....LINKS

Review your project results through

EOL

Have a Question?

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Released to Imaging: 6/16/2023 10:00:29 AM

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Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3381-1

Laboratory Sample Delivery Group: 03E1558118 Client Project/Site: JRU DI 11 Ekalaka 832H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Ben Belill

RAMER

Authorized for release by: 11/11/2022 3:48:49 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

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.

Client: Ensolum
Project/Site: JRU DI 11 Ekalaka 832H

Laboratory Job ID: 890-3381-1
SDG: 03E1558118

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Definitions/Glossary

Job ID: 890-3381-1 Client: Ensolum Project/Site: JRU DI 11 Ekalaka 832H

SDG: 03E1558118

Qualifiers

GC VOA

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

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description** *1 LCS/LCSD RPD exceeds control limits.

F1 MS and/or MSD recovery exceeds control limits.

Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

MCL

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

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

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

DFR Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

Decision Level Concentration (Radiochemistry) DLC

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

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

EPA recommended "Maximum Contaminant Level"

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

NC Not Calculated

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

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

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 832H

Job ID: 890-3381-1

SDG: 03E1558118

Job ID: 890-3381-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3381-1

Receipt

The samples were received on 11/4/2022 8:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH03 (890-3381-1), PH03A (890-3381-2), PH03B (890-3381-3) and PH03C (890-3381-4).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-39080 and analytical batch 880-39060 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-38890 and analytical batch 880-38805 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-38890 and analytical batch 880-38805 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike (MS) recoveries for preparation batch 880-38890 and analytical batch 880-38805 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

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Project/Site: JRU DI 11 Ekalaka 832H

Client: Ensolum

Job ID: 890-3381-1

SDG: 03E1558118

Lab Sample ID: 890-3381-1

Matrix: Solid

Client Sample ID: PH03
Date Collected: 11/03/22 12:25

Date Received: 11/04/22 08:38

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/09/22 09:58	11/10/22 05:48	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/09/22 09:58	11/10/22 05:48	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/09/22 09:58	11/10/22 05:48	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/09/22 09:58	11/10/22 05:48	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/09/22 09:58	11/10/22 05:48	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/09/22 09:58	11/10/22 05:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			11/09/22 09:58	11/10/22 05:48	1
1,4-Difluorobenzene (Surr)	105		70 - 130			11/09/22 09:58	11/10/22 05:48	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
			-0	mg/Kg				
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (Qualifier	•		_			
			RI RI	Unit	ח	Prenared	∆nalvzed	Dil Fac
 Total TPH			RL 50.0	Unit ma/Ka	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0		50.0	mg/Kg	D	Prepared	Analyzed 11/08/22 09:57	Dil Fac
• •	<50.0	U	50.0		<u>D</u>	Prepared		
: Method: SW846 8015B NM - Die	<50.0	U	50.0		D	Prepared		
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	<50.0	nics (DRO) Qualifier	50.0 (GC)	mg/Kg	_ =		11/08/22 09:57	1
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0 sel Range Orga Result	Unics (DRO) Qualifier U*1	50.0 (GC)	mg/Kg	_ =	Prepared	11/08/22 09:57 Analyzed	1 Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<50.0 sel Range Orga Result <50.0	nics (DRO) Qualifier U*1	50.0 (GC) RL 50.0	mg/Kg Unit mg/Kg	_ =	Prepared 11/07/22 14:24	11/08/22 09:57 Analyzed 11/08/22 01:17	Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0 sel Range Orga Result <50.0 <50.0	Oualifier U*1 U	50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg	_ =	Prepared 11/07/22 14:24 11/07/22 14:24	11/08/22 09:57 Analyzed 11/08/22 01:17 11/08/22 01:17	1 Dil Fac 1 1
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0 sel Range Orga Result <50.0 <50.0 <50.0	Oualifier U*1 U	50.0 (GC) RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg	_ =	Prepared 11/07/22 14:24 11/07/22 14:24	Analyzed 11/08/22 01:17 11/08/22 01:17 11/08/22 01:17	1 Dil Fac 1
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<50.0 sel Range Orga Result <50.0 <50.0 <50.0 %Recovery	Oualifier U*1 U	50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg	_ =	Prepared 11/07/22 14:24 11/07/22 14:24 11/07/22 14:24 Prepared	Analyzed 11/08/22 09:57 Analyzed 11/08/22 01:17 11/08/22 01:17 Analyzed	Dil Fac 1 1 Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<50.0 sel Range Orga Result <50.0 <50.0 <50.0 %Recovery 86 90	Onics (DRO) Qualifier U *1 U Qualifier	50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg	_ =	Prepared 11/07/22 14:24 11/07/22 14:24 11/07/22 14:24 Prepared 11/07/22 14:24	11/08/22 09:57 Analyzed 11/08/22 01:17 11/08/22 01:17 11/08/22 01:17 Analyzed 11/08/22 01:17	1 Dil Fac 1 1 1 1 Dil Fac 1
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	\$\sel \text{Range Orga Result} \\ \sell \sell \text{Result} \\ < \forall 0.0 \$\sell \text{Recovery} \\ \text{86} \\ 90 \$\sell \text{Recovery} \\ \text{86} \\ \text{90}\$ \$\sell \text{Recovery} \\ \text{86} \\ \text{90}\$	Onics (DRO) Qualifier U *1 U Qualifier	50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg	_ =	Prepared 11/07/22 14:24 11/07/22 14:24 11/07/22 14:24 Prepared 11/07/22 14:24	11/08/22 09:57 Analyzed 11/08/22 01:17 11/08/22 01:17 11/08/22 01:17 Analyzed 11/08/22 01:17	1 Dil Fac 1 1 1 1 Dil Fac 1

Client Sample ID: PH03A

Date Collected: 11/03/22 12:30

Date Received: 11/04/22 08:38

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/09/22 09:58	11/10/22 06:09	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/09/22 09:58	11/10/22 06:09	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/09/22 09:58	11/10/22 06:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/09/22 09:58	11/10/22 06:09	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/09/22 09:58	11/10/22 06:09	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/09/22 09:58	11/10/22 06:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			11/09/22 09:58	11/10/22 06:09	1

Eurofins Carlsbad

Lab Sample ID: 890-3381-2

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11/11/2022

Matrix: Solid

Client: Ensolum

Job ID: 890-3381-1 Project/Site: JRU DI 11 Ekalaka 832H SDG: 03E1558118

Client Sample ID: PH03A Lab Sample ID: 890-3381-2

Date Collected: 11/03/22 12:30 Matrix: Solid Date Received: 11/04/22 08:38

Sample Depth: 2'

Method: SW846 8021B	- Volatile Organic Compound	s (GC) (Continued)
motiloa. Otto-to coz ib	Tolutile Organie Compound	5 (5 5) (5 5) (11) (11)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1 4-Difluorobenzene (Surr)	112	70 _ 130	11/09/22 09:58	11/10/22 06:09	1

Method: TAI	SOP Total F	RTFY - Total	BTEX Calculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398 U	0.00398	ma/Ka			11/10/22 11:26	1

Mothod: SW846	2015 NM - Dio	sal Panga Orga	nice (DRO) (GC)

	· · · · · · · · · · · · · · · · · · ·						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			11/08/22 09:57	1

Method: SW84	6 8015R NM	- Diesel Range	Organics	(DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		11/07/22 14:24	11/08/22 01:38	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/08/22 01:38	1	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/08/22 01:38	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92	70 - 130	11/07/22 14:24	11/08/22 01:38	1
o-Terphenyl	101	70 - 130	11/07/22 14:24	11/08/22 01:38	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2950		50.4	mg/Kg			11/11/22 11:00	10

Client Sample ID: PH03B Lab Sample ID: 890-3381-3

Date Collected: 11/03/22 12:35 Date Received: 11/04/22 08:38

Sample Depth: 4'

ı	Method: SW846 8021B	Maladila Ossasia	O = ==== d= (OO)

wethod: 544040 0021B - Volatile Organic Compounds (CO)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/09/22 09:58	11/10/22 06:30	1
Toluene	< 0.00199	U	0.00199	mg/Kg		11/09/22 09:58	11/10/22 06:30	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		11/09/22 09:58	11/10/22 06:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/09/22 09:58	11/10/22 06:30	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		11/09/22 09:58	11/10/22 06:30	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/09/22 09:58	11/10/22 06:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			11/09/22 09:58	11/10/22 06:30	1
1 4-Diffuorobenzene (Surr)	111		70 130			11/09/22 09:58	11/10/22 06:30	1

Mothod: TAI	SOP Total RTFY	- Total RTFY	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00398	U	0.00398	ma/Ka			11/10/22 11:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/08/22 09:57	1

Eurofins Carlsbad

Matrix: Solid

Matrix: Solid

Job ID: 890-3381-1

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 832H SDG: 03E1558118

Client Sample ID: PH03B Lab Sample ID: 890-3381-3 Date Collected: 11/03/22 12:35 Matrix: Solid

Date Received: 11/04/22 08:38 Sample Depth: 4'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		11/07/22 14:24	11/08/22 01:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/08/22 01:58	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/08/22 01:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			11/07/22 14:24	11/08/22 01:58	1
o-Terphenyl	105		70 - 130			11/07/22 14:24	11/08/22 01:58	1

Analyte Result Qualifier RL Unit D Dil Fac Prepared Analyzed Chloride 5.00 11/10/22 14:57 23.6 mg/Kg **Client Sample ID: PH03C** Lab Sample ID: 890-3381-4

Date Collected: 11/03/22 12:40

Date Received: 11/04/22 08:38

Sample Depth: 6'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:58	11/10/22 06:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:58	11/10/22 06:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:58	11/10/22 06:50	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/09/22 09:58	11/10/22 06:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:58	11/10/22 06:50	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/09/22 09:58	11/10/22 06:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			11/09/22 09:58	11/10/22 06:50	1
1,4-Difluorobenzene (Surr)	110		70 - 130			11/09/22 09:58	11/10/22 06:50	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/10/22 11:26	1
_								
-								
Method: SW846 8015 NM - Diese	•	, , ,	•					
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
	•	Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 11/08/22 09:57	Dil Fac
Analyte		Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH	Result <50.0	Qualifier U			<u>D</u>	Prepared Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <50.0	Qualifier U nics (DRO) Qualifier	RL 50.0	mg/Kg			11/08/22 09:57	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <50.0 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U *1	RL 50.0 (GC)	mg/Kg		Prepared	11/08/22 09:57 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result sel Range Orga Result <50.0	Qualifier U nics (DRO) Qualifier U *1	RL 50.0 (GC) RL 50.0	mg/Kg Unit mg/Kg		Prepared 11/07/22 14:24	11/08/22 09:57 Analyzed 11/08/22 02:18	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result sel Range Orga Result <50.0	Qualifier U nics (DRO) Qualifier U *1 U	RL 50.0 (GC) RL 50.0	mg/Kg Unit mg/Kg		Prepared 11/07/22 14:24	11/08/22 09:57 Analyzed 11/08/22 02:18	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0 sel Range Orga Result <50.0 <50.0	Qualifier U nics (DRO) Qualifier U *1 U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 11/07/22 14:24 11/07/22 14:24	11/08/22 09:57 Analyzed 11/08/22 02:18 11/08/22 02:18	1 Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U nics (DRO) Qualifier U *1 U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 11/07/22 14:24 11/07/22 14:24 11/07/22 14:24	Analyzed 11/08/22 02:18 11/08/22 02:18 11/08/22 02:18	1 Dil Fac 1

Client Sample Results

Client: Ensolum Job ID: 890-3381-1 Project/Site: JRU DI 11 Ekalaka 832H SDG: 03E1558118

Client Sample ID: PH03C Lab Sample ID: 890-3381-4 Matrix: Solid

Date Collected: 11/03/22 12:40 Date Received: 11/04/22 08:38

Sample Depth: 6'

Method: MCAWW 300.0 - Anions, lo	on Chromato	graphy - So	oluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.5		4.99	mg/Kg			11/10/22 15:02	1

Surrogate Summary

Client: Ensolum Job ID: 890-3381-1 Project/Site: JRU DI 11 Ekalaka 832H SDG: 03E1558118

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-21336-A-21-D MS	Matrix Spike	88	106	
880-21336-A-21-E MSD	Matrix Spike Duplicate	83	99	
890-3381-1	PH03	107	105	
890-3381-2	PH03A	115	112	
890-3381-3	PH03B	114	111	
390-3381-4	PH03C	102	110	
_CS 880-39080/1-A	Lab Control Sample	89	107	
_CSD 880-39080/2-A	Lab Control Sample Dup	86	106	
MB 880-38969/5-A	Method Blank	91	100	
MB 880-39080/5-A	Method Blank	102	94	

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3372-A-1-C MS	Matrix Spike	96	92	
890-3372-A-1-D MSD	Matrix Spike Duplicate	89	85	
890-3381-1	PH03	86	90	
890-3381-2	PH03A	92	101	
890-3381-3	PH03B	96	105	
390-3381-4	PH03C	91	93	
LCS 880-38890/2-A	Lab Control Sample	97	103	
_CSD 880-38890/3-A	Lab Control Sample Dup	95	98	
MB 880-38890/1-A	Method Blank	99	109	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3381-1 Project/Site: JRU DI 11 Ekalaka 832H

SDG: 03E1558118

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38969/5-A

Lab Sample ID: MB 880-39080/5-A

Analysis Batch: 39060

Matrix: Solid

Matrix: Solid

Analysis Batch: 39060

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38969

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/08/22 10:15	11/09/22 11:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/08/22 10:15	11/09/22 11:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/08/22 10:15	11/09/22 11:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/08/22 10:15	11/09/22 11:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/08/22 10:15	11/09/22 11:50	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		11/08/22 10:15	11/09/22 11:50	1

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130		11/08/22 10:15	11/09/22 11:50	1
1,4-Difluorobenzene (Surr)	100		70 - 130	1	11/08/22 10:15	11/09/22 11:50	1

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39080

l		MB	MB						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:58	11/09/22 23:55	1
	Toluene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:58	11/09/22 23:55	1
	Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:58	11/09/22 23:55	1
	m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/09/22 09:58	11/09/22 23:55	1
	o-Xylene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:58	11/09/22 23:55	1
	Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/09/22 09:58	11/09/22 23:55	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	11/09/22 09:58	11/09/22 23:55	1
1,4-Difluorobenzene (Surr)	94		70 - 130	11/09/22 09:58	11/09/22 23:55	1

Lab Sample ID: LCS 880-39080/1-A **Matrix: Solid**

Analysis Batch: 39060

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

Prep Batch: 39080

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09609		mg/Kg		96	70 - 130	
Toluene	0.100	0.09518		mg/Kg		95	70 - 130	
Ethylbenzene	0.100	0.08916		mg/Kg		89	70 - 130	
m-Xylene & p-Xylene	0.200	0.1625		mg/Kg		81	70 - 130	
o-Xylene	0.100	0.09411		mg/Kg		94	70 - 130	

LCS LCS

Surrogate	%Recovery Qual	ifier Limits
4-Bromofluorobenzene (Surr)	89	70 - 130
1,4-Difluorobenzene (Surr)	107	70 - 130

Lab Sample ID: LCSD 880-39080/2-A

Matrix: Solid

Analysis Batch: 39060

Client Sample ID: Lab	Control Sample Dup
	Draw Times Tetal/NIA

Prep Type: Total/NA

Prep Batch: 39080

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09081		mg/Kg		91	70 - 130	6	35

QC Sample Results

Client: Ensolum Job ID: 890-3381-1 SDG: 03E1558118 Project/Site: JRU DI 11 Ekalaka 832H

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

Lab Sample ID: LCSD 880-39080/2-A

Matrix: Solid Analysis Batch: 39060 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 39080

-	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08729		mg/Kg		87	70 - 130	9	35
Ethylbenzene	0.100	0.08505		mg/Kg		85	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1591		mg/Kg		80	70 - 130	2	35
o-Xylene	0.100	0.09225		mg/Kg		92	70 - 130	2	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-21336-A-21-D MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 39060

Prep Type: Total/NA

Prep Batch: 39080

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.07815		mg/Kg		78	70 - 130	
Toluene	<0.00200	U	0.0998	0.07756		mg/Kg		78	70 - 130	
Ethylbenzene	<0.00200	U F1	0.0998	0.07007		mg/Kg		70	70 - 130	
m-Xylene & p-Xylene	<0.00401	U F1	0.200	0.1367	F1	mg/Kg		67	70 - 130	
o-Xylene	<0.00200	U	0.0998	0.07823		mg/Kg		78	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	88	70 - 130
1,4-Difluorobenzene (Surr)	106	70 - 130

Lab Sample ID: 880-21336-A-21-E MSD

Matrix: Solid

Analysis Batch: 39060

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 39080

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0990	0.07526		mg/Kg		76	70 - 130	4	35
Toluene	<0.00200	U	0.0990	0.07614		mg/Kg		77	70 - 130	2	35
Ethylbenzene	<0.00200	U F1	0.0990	0.06683	F1	mg/Kg		68	70 - 130	5	35
m-Xylene & p-Xylene	<0.00401	U F1	0.198	0.1275	F1	mg/Kg		63	70 - 130	7	35
o-Xylene	<0.00200	U	0.0990	0.07278		mg/Kg		74	70 - 130	7	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	83		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-38890/1-A

Matrix: Solid

Analysis Batch: 38805

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 38890

	1410							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 19:18	1
(CDO) CC C40								

(GRO)-C6-C10

Client: Ensolum

Job ID: 890-3381-1

SDG: 03E1558118

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

Lab Sample ID: MB 880-38890/1-A

Lab Sample ID: LCS 880-38890/2-A

Project/Site: JRU DI 11 Ekalaka 832H

Matrix: Solid

Matrix: Solid

Analysis Batch: 38805

Analysis Batch: 38805

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 38890

ı		IVID	IVID						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 19:18	1
	Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 19:18	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	F	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	11/0	07/22 14:24	11/07/22 19:18	1
o-Terphenyl	109		70 - 130	11/0	07/22 14:24	11/07/22 19:18	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38890

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 822.4 mg/Kg 82 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 911.7 70 - 130 mg/Kg 91 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: LCSD 880-38890/3-A

Matrix: Solid

Analysis Batch: 38805

Prep Type: Total/NA

Prep Batch: 38890

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1052	*1	mg/Kg		105	70 - 130	24	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	810.0		mg/Kg		81	70 - 130	12	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-3372-A-1-C MS

Matrix: Solid

Analysis Batch: 38805

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

Prep Batch: 38890

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1 F1	997	1396	F1	mg/Kg		137	70 - 130	
Diesel Range Organics (Over	<50.0	U	997	895.2		mg/Kg		90	70 - 130	

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	92		70 - 130

Client: Ensolum Job ID: 890-3381-1 Project/Site: JRU DI 11 Ekalaka 832H

SDG: 03E1558118

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

89

85

Lab Sample ID: 890-3372-A-1- Matrix: Solid Analysis Batch: 38805	-D MSD					CI	ient Sa	ample IC	•	oike Dup Type: To Batch:	tal/NA
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1 F1	999	1246		mg/Kg		122	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	820.4		mg/Kg		82	70 - 130	9	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								

70 - 130

70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-38846/3-A

1-Chlorooctane

Matrix: Solid

o-Terphenyl

Lab Sample ID: MB 880-38846/1-A						Client Sa	ample ID: Metho	d Blank
Matrix: Solid							Prep Type:	Soluble
Analysis Batch: 39043								
-	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/10/22 13:18	1

Lab Sample ID: LCS 880-38846/2-A			Client Sample ID: Lab Control Sample
Matrix: Solid			Prep Type: Soluble
Analysis Batch: 39043			
	Spike	LCS LCS	%Rec

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	265.9		mg/Kg		106	90 - 110	 _

Matrix: Solid Analysis Batch: 39043							Prep	Type: So	oluble	
	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	

Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	266.8		mg/Kg		107	90 - 110	0	20
Lab Sample ID: 890-3381-2 MS							Client Sam	ple ID: F	Н03А

Analysis Batch: 39043										
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	2950		2520	5533		ma/Ka		102	90 - 110	

Lab Sample ID: 890-3381-2 MSD	Client Sample ID: PH03A
Matrix: Solid	Prep Type: Soluble
Analysis Batch: 39043	

7 many ord Battonii dod 10											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	2950		2520	5488		mg/Kg		101	90 - 110	1	20

Eurofins Carlsbad

Prep Type: Soluble

Client Sample ID: Lab Control Sample Dup

QC Association Summary

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 832H

Job ID: 890-3381-1 SDG: 03E1558118

GC VOA

Prep Batch: 38969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38969/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 39060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3381-1	PH03	Total/NA	Solid	8021B	39080
890-3381-2	PH03A	Total/NA	Solid	8021B	39080
890-3381-3	PH03B	Total/NA	Solid	8021B	39080
890-3381-4	PH03C	Total/NA	Solid	8021B	39080
MB 880-38969/5-A	Method Blank	Total/NA	Solid	8021B	38969
MB 880-39080/5-A	Method Blank	Total/NA	Solid	8021B	39080
LCS 880-39080/1-A	Lab Control Sample	Total/NA	Solid	8021B	39080
LCSD 880-39080/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39080
880-21336-A-21-D MS	Matrix Spike	Total/NA	Solid	8021B	39080
880-21336-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39080

Prep Batch: 39080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3381-1	PH03	Total/NA	Solid	5035	
890-3381-2	PH03A	Total/NA	Solid	5035	
890-3381-3	PH03B	Total/NA	Solid	5035	
890-3381-4	PH03C	Total/NA	Solid	5035	
MB 880-39080/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39080/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39080/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21336-A-21-D MS	Matrix Spike	Total/NA	Solid	5035	
880-21336-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 39219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
890-3381-1	PH03	Total/NA	Solid	Total BTEX
890-3381-2	PH03A	Total/NA	Solid	Total BTEX
890-3381-3	PH03B	Total/NA	Solid	Total BTEX
890-3381-4	PH03C	Total/NA	Solid	Total BTEX

GC Semi VOA

Analysis Batch: 38805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3381-1	PH03	Total/NA	Solid	8015B NM	38890
890-3381-2	PH03A	Total/NA	Solid	8015B NM	38890
890-3381-3	PH03B	Total/NA	Solid	8015B NM	38890
890-3381-4	PH03C	Total/NA	Solid	8015B NM	38890
MB 880-38890/1-A	Method Blank	Total/NA	Solid	8015B NM	38890
LCS 880-38890/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38890
LCSD 880-38890/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38890
890-3372-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	38890
890-3372-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38890

Prep Batch: 38890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3381-1	PH03	Total/NA	Solid	8015NM Prep	

QC Association Summary

 Client: Ensolum
 Job ID: 890-3381-1

 Project/Site: JRU DI 11 Ekalaka 832H
 SDG: 03E1558118

GC Semi VOA (Continued)

Prep Batch: 38890 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3381-2	PH03A	Total/NA	Solid	8015NM Prep	
890-3381-3	PH03B	Total/NA	Solid	8015NM Prep	
890-3381-4	PH03C	Total/NA	Solid	8015NM Prep	
MB 880-38890/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38890/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38890/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3372-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3372-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38966

Lab Sample ID 890-3381-1	Client Sample ID PH03	Prep Type Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
890-3381-2	PH03A	Total/NA	Solid	8015 NM	
890-3381-3	PH03B	Total/NA	Solid	8015 NM	
890-3381-4	PH03C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3381-1	PH03	Soluble	Solid	DI Leach	
890-3381-2	PH03A	Soluble	Solid	DI Leach	
890-3381-3	PH03B	Soluble	Solid	DI Leach	
890-3381-4	PH03C	Soluble	Solid	DI Leach	
MB 880-38846/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38846/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38846/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3381-2 MS	PH03A	Soluble	Solid	DI Leach	
890-3381-2 MSD	PH03A	Soluble	Solid	DI Leach	

Analysis Batch: 39043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3381-1	PH03	Soluble	Solid	300.0	38846
890-3381-2	PH03A	Soluble	Solid	300.0	38846
890-3381-3	PH03B	Soluble	Solid	300.0	38846
890-3381-4	PH03C	Soluble	Solid	300.0	38846
MB 880-38846/1-A	Method Blank	Soluble	Solid	300.0	38846
LCS 880-38846/2-A	Lab Control Sample	Soluble	Solid	300.0	38846
LCSD 880-38846/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38846
890-3381-2 MS	PH03A	Soluble	Solid	300.0	38846
890-3381-2 MSD	PH03A	Soluble	Solid	300.0	38846

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Job ID: 890-3381-1 SDG: 03E1558118 Project/Site: JRU DI 11 Ekalaka 832H

Lab Sample ID: 890-3381-1

Client Sample ID: PH03 Date Collected: 11/03/22 12:25 Date Received: 11/04/22 08:38

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	39080	11/09/22 09:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39060	11/10/22 05:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39219	11/10/22 11:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			38966	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/08/22 01:17	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	38846	11/07/22 10:40	KS	EET MID
Soluble	Analysis	300.0		50			39043	11/10/22 14:37	CH	EET MID

Client Sample ID: PH03A Lab Sample ID: 890-3381-2

Date Collected: 11/03/22 12:30 Matrix: Solid

Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	39080	11/09/22 09:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39060	11/10/22 06:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39219	11/10/22 11:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			38966	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/08/22 01:38	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	38846	11/07/22 10:40	KS	EET MID
Soluble	Analysis	300.0		10			39043	11/11/22 11:00	CH	EET MID

Client Sample ID: PH03B Lab Sample ID: 890-3381-3 Date Collected: 11/03/22 12:35 **Matrix: Solid**

Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	39080	11/09/22 09:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39060	11/10/22 06:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39219	11/10/22 11:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			38966	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/08/22 01:58	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38846	11/07/22 10:40	KS	EET MID
Soluble	Analysis	300.0		1			39043	11/10/22 14:57	CH	EET MID

Client Sample ID: PH03C Lab Sample ID: 890-3381-4

Date Collected: 11/03/22 12:40 Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	39080	11/09/22 09:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39060	11/10/22 06:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39219	11/10/22 11:26	SM	EET MID

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Released to Imaging: 6/16/2023 10:00:29 AM

Matrix: Solid

Lab Chronicle

Client: Ensolum Job ID: 890-3381-1 Project/Site: JRU DI 11 Ekalaka 832H SDG: 03E1558118

Client Sample ID: PH03C Lab Sample ID: 890-3381-4 Date Collected: 11/03/22 12:40

Matrix: Solid

Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			38966	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/08/22 02:18	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	38846	11/07/22 10:40	KS	EET MID
Soluble	Analysis	300.0		1			39043	11/10/22 15:02	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3381-1 Project/Site: JRU DI 11 Ekalaka 832H SDG: 03E1558118

Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date	
Texas	NE	ELAP	T104704400-22-24	06-30-23	
The following analytes	are included in this report, but	t the laboratory is not certific	ed by the governing authority. This list ma	av include analytes fo	
the agency does not of	• •	it the laboratory is not certific	su by the governing authority. This list his	ay include analytes to	
,	• •	Matrix	Analyte	ay include analytes to	
the agency does not of	fer certification.	,	, , ,	ay illoude allalytes lo	

Method Summary

Client: Ensolum

Job ID: 890-3381-1 Project/Site: JRU DI 11 Ekalaka 832H SDG: 03E1558118

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 832H

Job ID: 890-3381-1

SDG: 03E1558118

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3381-1	PH03	Solid	11/03/22 12:25	11/04/22 08:38	0.5'
890-3381-2	PH03A	Solid	11/03/22 12:30	11/04/22 08:38	2'
890-3381-3	PH03B	Solid	11/03/22 12:35	11/04/22 08:38	4'
890-3381-4	PH03C	Solid	11/03/22 12:40	11/04/22 08:38	6'

13 14

Project Manager:

Ben Belill

Company Name:

Ensolum

Company Name: Bill to: (if different)

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

Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐

Work Order Comments

www.xenco.com

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State of Project:

3122 National Parks Hwy

Address:

Chain of Custody

City, State ZIP:	Carlsbad, NM 88220			City, State ZIP:	Ų	Carls	Carlsbad, NM 88220	M 882	2	Keboling: Level II Clevel III Cle	ralloat [
	303-887-2946		Email:	Garrett Gree	1000	Manox	xonMobil com	13	0	Deliverables: EDD ADa	ADaPT Other:	
Project Name:	JRU DI 11 Ekalaka 823H	aka 823H	Turn	Turn Around					ANALYSIS REQUEST	EST	Preservative Codes	
Project Number:	03E1558118	118	✓ Routine	Rush	Code	o .					None: NO DI Water: H ₂ O	
Project Location:			Due Date:								<u>o</u>	
Sampler's Name:	Connor Whitman		TAT starts the	TAT starts the day received by	¥							
PO #:			the lab, if rece	ived by 4:30pr	_		Т			-	H ₂ S0 ₄ : H ₂ NaOH: Na	
SAMPLE RECEIPT	Temp Blank:	Yès (No)	Wet Ice:	No No	nete	0)					H₃PO₄: HP	
Samples Received Intact	tact: Oxes No	Thermometer ID:	٠,	tom 20	aran	300.					NaHSO₄: NABIS	
Cooler Custody Seals:	Yes No NA	Correction Factor:	or.	-D	Pi	PA:					Na ₂ S ₂ O ₃ : NaSO ₃	24
Sample Custody Seals:	s: Yes No (N/A	Temperature Reading:	eading:	1.1		(EI)	890-3381 Chain of Custody	dy	Zn Acetate+NaOH: Zn	٥f
Total Containers:		Corrected Temperature	perature:	3 2		IDES	15)	3021			NaOH+Ascorbic Acid: SAPC	21
Sample Identification	lification Matrix	Date Sampled	Time Sampled	Depth Comp	b/ # of	CHLOR	TPH (80	втех (Sample Comments	Pane
PH03	3 S	11/3/2022	12:25	0.5' Grab	<u>ō</u>	×	×	×			Incident ID:	ı
РНОЗА	A	11/3/2022	12:30	2' Grab	<u>ō</u>	×	×	×			NAPP2224527297	
РНОЗВ	B	11/3/2022	12:35	4' Grab	1	×	×	×			Cost Center:	
PH03C	C	11/3/2022	12:40	6' Grab	1	×	×	×			2104541001	
											AFE:	
											DD 2019 06665 CAP CMP	
					+	t	T					
					1	/		E				
								7				
Total 200.7 / 6010	10 200.8 / 6020:	8RC	8RCRA 13PPM	M Texas 11	≥	Sb As	Ba	Be B Cd	Ca Cr Co Cu Fe Pb Mg	Mn Mo Ni K Se A	Na Sr Tl Sn U V Zn	
Circle Method(s) ar	Circle Method(s) and Metal(s) to be analyzed	lyzed	TCLP / SP	LP 6010: 8	RCRA	Sb	As Ba	Be (TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni	Ni Se Ag TI U Hg: 163	Hg: 1631 / 245.1 / 7470 / 7471	
Notice: Signature of this d	locument and relinquishmer o will be liable only for the c	nt of samples constitu	ites a valid purc	hase order from any responsibil	client co	ompany ny losses	to Eurofi or expe	ns Xenc	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 associates the contract of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to 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 service 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 service 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 service 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 service 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 service 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 service the cost of samples and shall not assume any losses are due to service the cost of samples and shall not service the cost of samples are due to service the cost of samples are due to service the cost of samples and samples are due to service the cost of samples and samples are due to service the cost of samples are due to service the cost of samples are due to service the cost of samples are due to service the cost of samples are due to service the cost of samples are due to service the cost of samples are due to service the cost of samples are due to service the cost of samples are due to service the cost of samples are due to service the cost of samples are due to service the cost of samples are due to service the cost of samples are due to service the samples are due to service the cost of sa	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 service. Such as a charge of the control of service and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	¥ď.	
Relinquished by: (Signature)	: (Signature)	Received	Received by: (Signature)	ıre)		Date	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	nature) Date/Time	

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Revised Date: 08/25/2020 Rev. 2020.2

Carlsbad NM 88220 Phone: 575-988-3199 Fax 575-988-3199

Euronins Carlsbad 1089 N Canal St

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Chain of Custody Record

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Environment Testing

State Zip TX, 79701 Empty Kit Relinquished by Possible Hazard Identification Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central. LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central. LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central. LLC. PH03C (890-3381-4) PH03B (890-3381-3) PH03A (890-3381-2) PH03 (890-3381-1) Sample Identification - Client ID (Lab ID) Deliverable Requested I II III IV JRU DI 11 Ekalaka 832H 432-704-5440(Tel) Midland Shipping/Receiving Eurofins Environment Testing South Centr Client Information (Sub Contract Lab) 211 W Florida Ave elinquished by elinquished t linquished by: Custody Seals Intact: ∆ Yes ∆ No Custody Seal No Other (specify) Date/Time Primary Deliverable Rank 2 PO# Due Date Requested Phone)ate/Time 39000093 TAT Requested (days) 11/10/2022 Sample Date roject #: 11/3/22 11/3/22 11/3/22 11/3/22 Date Mountain 12 35 Mountain 12 30 Mountain 12 40 Mountain Sample 12 25 (C=comp, Sample Preservation Code: Type Company Company Matrix Solid Solid Solid Solid Kramer Jessica Jessica Kramer@et eurofinsus com NELAP - Texas Ime. ccreditations Required (See note) Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Cooler Temperature(s) °C and Other Remarks: Received by × × × × 8015MOD_NM/8015NM_S_Prep (MOD) Full TPH × × × × 8015MOD_Calc × × × × 300_ORGFM_28D/DI_LEACH Chloride × × × × 8021B/5035FP_Calc (MOD) BTEX Analysis Requested × Total_BTEX_GCV × × × State of Origin New Mexico Carrier Tracking No(s) Date/Time Date/Time $\bot X$ Total Number of containers puide. 4 n de la composição de l A HCL
B NaOH
C Zn Acetate
D Nific Acid
E NaHSO4
F MeOH
G Amchlor
H Ascorbic Acid
I Ice
J Di Water
K EDTA
L EDA COC No 890-1010 1 890-3381-1 Preservation Codes Page 1 of 1 Na H Special Instructions/Note M Hexane
N None
N None
O AsNaO2
P-Na2O4S
Q Na2SO3
R Na2SO3
R Na2SO3
R Na2SO3
T TSP Dodecahydrate
U Acetone
U Acetone
V MCAA
V pH 4-5
Y Trizma
Z other (specify) Company Company Months

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3381-1

SDG Number: 03E1558118

Login Number: 3381 List Source: Eurofins Carlsbad

List Number: 1 Creator: Stutzman, Amanda

Question Answer Comment The cooler's custody seal, if present, is intact. True Sample custody seals, if present, are intact. True The cooler or samples do not appear to have been compromised or True tampered with. Samples were received on ice. True True Cooler Temperature is acceptable. 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 True HTs) True Sample containers have legible labels. 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 N/A Sample Preservation Verified. There is sufficient vol. for all requested analyses, incl. any requested True MS/MSDs Containers requiring zero headspace have no headspace or bubble is N/A

2

4

6

8

40

13

14

<6mm (1/4").

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3381-1

SDG Number: 03E1558118

Login Number: 3381 **List Source: Eurofins Midland** List Number: 2 List Creation: 11/07/22 09:10 AM

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

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3382-1

Laboratory Sample Delivery Group: 03E1558118 Client Project/Site: JRU DI 11 Ekalaka 832H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Ben Belill

RAMER

Authorized for release by: 11/11/2022 9:13:09 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

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.

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 832H

Laboratory Job ID: 890-3382-1 SDG: 03E1558118

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Definitions/Glossary

Client: Ensolum Job ID: 890-3382-1 Project/Site: JRU DI 11 Ekalaka 832H

SDG: 03E1558118

Qualifiers

GC VOA	
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.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 832H

Job ID: 890-3382-1

SDG: 03E1558118

Job ID: 890-3382-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3382-1

Receipt

The samples were received on 11/4/2022 8:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH04 (890-3382-1), PH04A (890-3382-2), PH04B (890-3382-3), PH04C (890-3382-4) and PH04D (890-3382-5).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-38960/1-A) and (LCSD 880-38960/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (880-21141-A-21-E MS) and (880-21141-A-21-F MSD). 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: (MB 880-38960/5-A). Evidence of matrix interferences is not obvious

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-21141-A-21-G). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH04 (890-3382-1), PH04A (890-3382-2), PH04B (890-3382-3), PH04C (890-3382-4) and PH04D (890-3382-5). 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: The method blank for preparation batch 880-38890 and analytical batch 880-38805 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-38890 and analytical batch 880-38805 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD NM: The matrix spike (MS) recoveries for preparation batch 880-38890 and analytical batch 880-38805 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 832H

Job ID: 890-3382-1

SDG: 03E1558118

Lab Sample ID: 890-3382-1

Matrix: Solid

Date Received: 11/04/22 08:38 Sample Depth: 0.5'

Client Sample ID: PH04

Date Collected: 11/03/22 13:10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/10/22 23:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/10/22 23:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/10/22 23:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/10/22 13:34	11/10/22 23:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/10/22 23:21	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/10/22 13:34	11/10/22 23:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130			11/10/22 13:34	11/10/22 23:21	1
1,4-Difluorobenzene (Surr)	102		70 - 130			11/10/22 13:34	11/10/22 23:21	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/11/22 09:54	1
- Method: SW846 8015 NM - Die	esel Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	<50.0	U	50.0	mg/Kg			11/08/22 09:57	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		11/07/22 14:24	11/08/22 02:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/08/22 02:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/08/22 02:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			11/07/22 14:24	11/08/22 02:39	1
o-Terphenyl	103		70 - 130			11/07/22 14:24	11/08/22 02:39	1

Method: MCAWW 300.0 - Anions, I	on Chromato	graphy - So	luble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.1		4.99	mg/Kg			11/10/22 15:17	1

Client Sample ID: PH04A Lab Sample ID: 890-3382-2

Date Collected: 11/03/22 13:15 Date Received: 11/04/22 08:38

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/10/22 23:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/10/22 23:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/10/22 23:48	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/10/22 13:34	11/10/22 23:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/10/22 23:48	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/10/22 13:34	11/10/22 23:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	245	S1+	70 - 130			11/10/22 13:34	11/10/22 23:48	1

Eurofins Carlsbad

Matrix: Solid

Matrix: Solid

Client: Ensolum

Job ID: 890-3382-1 SDG: 03E1558118 Project/Site: JRU DI 11 Ekalaka 832H

Client Sample ID: PH04A Lab Sample ID: 890-3382-2

Date Collected: 11/03/22 13:15 Date Received: 11/04/22 08:38

Sample Depth: 2'

Method: SW846 8021B	- Volatile Organic	Compounds	(GC)	(Continued)	
moundar official solutions	Tolutio Organic	- Compounds	,	(Continuou,	

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	68 S1-	70 - 130	11/10/22 13:34	11/10/22 23:48	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result Quali		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401 U	0.00401	mg/Kg			11/11/22 09:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/08/22 09:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		11/07/22 14:24	11/08/22 02:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/08/22 02:59	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/08/22 02:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92	70 - 130	11/07/22 14:24	11/08/22 02:59	1
o-Terphenyl	97	70 - 130	11/07/22 14:24	11/08/22 02:59	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	481		5.05	mg/Kg			11/10/22 15:22	1

Client Sample ID: PH04B Lab Sample ID: 890-3382-3

Date Collected: 11/03/22 13:20 Date Received: 11/04/22 08:38

Sample Depth: 4'

ı	Method: SW846 8021B	Valatila Ossasia	O = (OO)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/11/22 00:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/11/22 00:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/11/22 00:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/10/22 13:34	11/11/22 00:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/11/22 00:14	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/10/22 13:34	11/11/22 00:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	277	S1+	70 - 130			11/10/22 13:34	11/11/22 00:14	1
1,4-Difluorobenzene (Surr)	84		70 - 130			11/10/22 13:34	11/11/22 00:14	1

Mothod: TAI	SOP Total RTFY	- Total RTFY	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399	ma/Ka			11/11/22 09:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/08/22 09:57	1

Eurofins Carlsbad

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3382-3

Lab Sample ID: 890-3382-4

Matrix: Solid

Job ID: 890-3382-1 SDG: 03E1558118

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 832H

Client Sample ID: PH04B

Date Collected: 11/03/22 13:20 Date Received: 11/04/22 08:38

Sample Depth: 4'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		11/07/22 14:24	11/08/22 03:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/08/22 03:19	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/07/22 14:24	11/08/22 03:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			11/07/22 14:24	11/08/22 03:19	1
o-Terphenyl	95		70 - 130			11/07/22 14:24	11/08/22 03:19	1

Analyte Result Qualifier RL Unit D Dil Fac Prepared Analyzed 4.95 Chloride 11/10/22 15:27 420 mg/Kg

Client Sample ID: PH04C

Date Collected: 11/03/22 13:30

Date Received: 11/04/22 08:38

Sample Depth: 6'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/10/22 13:34	11/11/22 00:41	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/10/22 13:34	11/11/22 00:41	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/10/22 13:34	11/11/22 00:41	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		11/10/22 13:34	11/11/22 00:41	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/10/22 13:34	11/11/22 00:41	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/10/22 13:34	11/11/22 00:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	288	S1+	70 - 130			11/10/22 13:34	11/11/22 00:41	1
1,4-Difluorobenzene (Surr)	84		70 - 130			11/10/22 13:34	11/11/22 00:41	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/11/22 09:54	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/08/22 09:57	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		11/07/22 14:24	11/08/22 03:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/08/22 03:40	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/08/22 03:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			11/07/22 14:24	11/08/22 03:40	1
o-Terphenyl	113		70 - 130			11/07/22 14:24	11/08/22 03:40	1

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 832H

Job ID: 890-3382-1

SDG: 03E1558118

Client Sample ID: PH04C

Date Received: 11/04/22 08:38

Lab Sample ID: 890-3382-4 Date Collected: 11/03/22 13:30

Matrix: Solid

Sample Depth: 6'

Method: MCAWW 300.0 - Anions, lor	Chromato	graphy - Solu	uble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	267		4.96	mg/Kg			11/10/22 15:32	1

Client Sample ID: PH04D Lab Sample ID: 890-3382-5 **Matrix: Solid**

Date Collected: 11/03/22 14:15

Date Received: 11/04/22 08:38

Sample Depth: 10'

Analyte

(GRO)-C6-C10

Gasoline Range Organics

Diesel Range Organics (Over

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/11/22 01:07	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/11/22 01:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/11/22 01:07	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/10/22 13:34	11/11/22 01:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/10/22 13:34	11/11/22 01:07	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/10/22 13:34	11/11/22 01:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	209	S1+	70 - 130			11/10/22 13:34	11/11/22 01:07	1
1,4-Difluorobenzene (Surr)	72		70 - 130			11/10/22 13:34	11/11/22 01:07	1
Method: TAL SOP Total BTEX	- Total BTFX Cald	culation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/11/22 09:54	1
Method: SW846 8015 NM - Die	sel Range Organ	ics (DRO) (GC)					
Method: SW846 8015 NM - Die Analyte	•	ics (DRO) (C	GC) RL	Unit	D	Prepared	Analyzed	Dil Fac

C10-C28) Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	11/07/22 14:24	11/08/22 04:00	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130		11/07/22 14:24	11/08/22 04:00	1
o-Terphenyl	105		70 - 130		11/07/22 14:24	11/08/22 04:00	1
-							

RL

50.0

50.0

Unit

mg/Kg

mg/Kg

Prepared

11/07/22 14:24

11/07/22 14:24

Result Qualifier

<50.0 U *1

<50.0 U

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	424		5.02	mg/Kg			11/10/22 15:37	1	

Eurofins Carlsbad

Dil Fac

Analyzed

11/08/22 04:00

11/08/22 04:00

Surrogate Summary

Client: Ensolum Job ID: 890-3382-1 Project/Site: JRU DI 11 Ekalaka 832H SDG: 03E1558118

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3372-A-1-C MS	Matrix Spike	96	92	
890-3372-A-1-D MSD	Matrix Spike Duplicate	89	85	
890-3382-1	PH04	94	103	
890-3382-2	PH04A	92	97	
890-3382-3	PH04B	90	95	
390-3382-4	PH04C	104	113	
890-3382-5	PH04D	97	105	
LCS 880-38890/2-A	Lab Control Sample	97	103	
LCSD 880-38890/3-A	Lab Control Sample Dup	95	98	
MB 880-38890/1-A	Method Blank	99	109	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 832H

Job ID: 890-3382-1 SDG: 03E1558118

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38960/5-A

Lab Sample ID: LCS 880-38960/1-A

Matrix: Solid

Analysis Batch: 39229

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38960

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/08/22 09:56	11/10/22 15:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/08/22 09:56	11/10/22 15:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/08/22 09:56	11/10/22 15:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/08/22 09:56	11/10/22 15:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/08/22 09:56	11/10/22 15:54	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/08/22 09:56	11/10/22 15:54	1

MB MB

١	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	4-Bromofluorobenzene (Surr)	140	S1+	70 - 130	11/08/22 09:56	11/10/22 15:54	1
١	1.4-Difluorobenzene (Surr)	74		70 - 130	11/08/22 09:56	11/10/22 15:54	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38960

Matrix: Solid Analysis Batch: 39229

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1206		mg/Kg		121	70 - 130	
Toluene	0.100	0.1189		mg/Kg		119	70 - 130	
Ethylbenzene	0.100	0.1271		mg/Kg		127	70 - 130	
m-Xylene & p-Xylene	0.200	0.2552		mg/Kg		128	70 - 130	
o-Xylene	0.100	0.1256		mg/Kg		126	70 - 130	
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LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130
1,4-Difluorobenzene (Surr)	72		70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 39229

Lab Sample ID: LCSD 880-38960/2-A

Prep Type: Total/NA Prep Batch: 38960

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1171		mg/Kg		117	70 - 130	3	35
Toluene	0.100	0.1087		mg/Kg		109	70 - 130	9	35
Ethylbenzene	0.100	0.1197		mg/Kg		120	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2402		mg/Kg		120	70 - 130	6	35
o-Xylene	0.100	0.1216		mg/Kg		122	70 - 130	3	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	156	S1+	70 - 130
1.4-Difluorobenzene (Surr)	70		70 - 130

Lab Sample ID: 880-21141-A-21-E MS

Matrix: Solid

Analysis Batch: 39229

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

Prep Batch: 38960

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F1	0.100	0.1425	F1	mg/Kg	_	142	70 - 130	
Toluene	<0.00201	U	0.100	0.1263		mg/Kg		126	70 - 130	

Project/Site: JRU DI 11 Ekalaka 832H

Client: Ensolum

Job ID: 890-3382-1

SDG: 03E1558118

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

Lab Sample ID: 880-21141-A-21-E MS

Matrix: Solid

Matrix: Solid

Analysis Batch: 39229

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 38960

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 0.1354 F1 Ethylbenzene <0.00201 U F1 0.100 135 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00402 UF1 0.200 0.2734 F1 mg/Kg 136 70 - 130 0.100 o-Xylene <0.00201 UF1 0.1399 F1 140 70 - 130 mg/Kg

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	227	S1+	70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 38960

Analysis Batch: 39229

Lab Sample ID: 880-21141-A-21-F MSD

Sample Sample Spike MSD MSD RPD Result Qualifier Result Qualifier %Rec RPD Limit Analyte babbA Unit Limits Benzene <0.00201 UF1 0.0990 0.1280 mg/Kg 129 70 - 130 11 35 Toluene <0.00201 U 0.0990 0.1220 mg/Kg 123 70 - 130 3 35 Ethylbenzene <0.00201 UF1 0.0990 0.1185 120 70 - 130 13 35 mg/Kg 0.198 m-Xylene & p-Xylene <0.00402 U F1 0.2403 mg/Kg 121 70 - 130 13 35 0.0990 <0.00201 UF1 0.1268 128 70 - 130 o-Xylene mg/Kg 10

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	216	S1+	70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

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

Lab Sample ID: MB 880-38890/1-A

Matrix: Solid

Analysis Batch: 38805

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38890

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 19:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 19:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/07/22 14:24	11/07/22 19:18	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	d Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	11/07/22 14	:24 11/07/22 19:18	1
o-Terphenyl	109		70 - 130	11/07/22 14	:24 11/07/22 19:18	1

Lab Sample ID: LCS 880-38890/2-A

Matrix: Solid

Analysis Batch: 38805

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38890

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	822.4		mg/Kg		82	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	911.7		mg/Kg		91	70 - 130	
C10-C28)								

C10-C28)

C10-C28)

Job ID: 890-3382-1 Client: Ensolum Project/Site: JRU DI 11 Ekalaka 832H

SDG: 03E1558118

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

Lab Sample ID: LCS 880-38890/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid Prep Type: Total/NA Analysis Batch: 38805 Prep Batch: 38890

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 97 70 - 130 o-Terphenyl 103 70 - 130

Lab Sample ID: LCSD 880-38890/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA Analysis Batch: 38805 Prep Batch: 38890

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit 1000 1052 *1 105 70 - 13024 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 810.0 mg/Kg 81 70 - 13012 20

LCSD LCSD Surrogate %Recovery Qualifier Limits 95 70 - 130 1-Chlorooctane 98 70 - 130 o-Terphenyl

Lab Sample ID: 890-3372-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA

Analysis Batch: 38805 Prep Batch: 38890 MS MS Sample Sample Spike

Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <50.0 U *1 F1 997 1396 F1 mg/Kg 137 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 997 895.2 mg/Kg 90 70 - 130 C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 96 o-Terphenyl 92 70 - 130

Lab Sample ID: 890-3372-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 38805 Prep Batch: 38890

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit U *1 F1 999 122 Gasoline Range Organics <50.0 1246 70 - 130 11 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 999 820.4 mg/Kg 82 70 - 130 20

MSD MSD Qualifier Surrogate %Recovery Limits 1-Chlorooctane 89 70 - 130 85 70 - 130 o-Terphenyl

QC Sample Results

Client: Ensolum Job ID: 890-3382-1 Project/Site: JRU DI 11 Ekalaka 832H

SDG: 03E1558118

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38846/1-A

Matrix: Solid

Analysis Batch: 39043

Analyte

Chloride

Client Sample ID: Method Blank

Prep Type: Soluble

MB MB Result Qualifier RL Unit D Prepared Analyzed Dil Fac <5.00 U 5.00 mg/Kg 11/10/22 13:18

Lab Sample ID: LCS 880-38846/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39043

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 265.9 mg/Kg 106 90 - 110

Lab Sample ID: LCSD 880-38846/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39043

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 266.8 mg/Kg 107 90 - 110

Lab Sample ID: 890-3380-A-40-B MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39043

MS MS Sample Sample Spike %Rec Analyte Qualifier Added %Rec Result Result Qualifier Unit Limits Chloride 44.6 250 305.4 104 90 - 110 mg/Kg

Lab Sample ID: 890-3380-A-40-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39043

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 250 Chloride 44.6 305.8 mg/Kg 104 90 - 110 0 20

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 832H

Job ID: 890-3382-1 SDG: 03E1558118

GC VOA

Prep Batch: 38960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3382-1	PH04	Total/NA	Solid	5035	
890-3382-2	PH04A	Total/NA	Solid	5035	
890-3382-3	PH04B	Total/NA	Solid	5035	
890-3382-4	PH04C	Total/NA	Solid	5035	
890-3382-5	PH04D	Total/NA	Solid	5035	
MB 880-38960/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38960/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38960/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21141-A-21-E MS	Matrix Spike	Total/NA	Solid	5035	
880-21141-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 39229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3382-1	PH04	Total/NA	Solid	8021B	38960
890-3382-2	PH04A	Total/NA	Solid	8021B	38960
890-3382-3	PH04B	Total/NA	Solid	8021B	38960
890-3382-4	PH04C	Total/NA	Solid	8021B	38960
890-3382-5	PH04D	Total/NA	Solid	8021B	38960
MB 880-38960/5-A	Method Blank	Total/NA	Solid	8021B	38960
LCS 880-38960/1-A	Lab Control Sample	Total/NA	Solid	8021B	38960
LCSD 880-38960/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38960
880-21141-A-21-E MS	Matrix Spike	Total/NA	Solid	8021B	38960
880-21141-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38960

Analysis Batch: 39311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3382-1	PH04	Total/NA	Solid	Total BTEX	
890-3382-2	PH04A	Total/NA	Solid	Total BTEX	
890-3382-3	PH04B	Total/NA	Solid	Total BTEX	
890-3382-4	PH04C	Total/NA	Solid	Total BTEX	
890-3382-5	PH04D	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3382-1	PH04	Total/NA	Solid	8015B NM	38890
890-3382-2	PH04A	Total/NA	Solid	8015B NM	38890
890-3382-3	PH04B	Total/NA	Solid	8015B NM	38890
890-3382-4	PH04C	Total/NA	Solid	8015B NM	38890
890-3382-5	PH04D	Total/NA	Solid	8015B NM	38890
MB 880-38890/1-A	Method Blank	Total/NA	Solid	8015B NM	38890
LCS 880-38890/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38890
LCSD 880-38890/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38890
890-3372-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	38890
890-3372-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38890

Prep Batch: 38890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3382-1	PH04	Total/NA	Solid	8015NM Prep	
890-3382-2	PH04A	Total/NA	Solid	8015NM Prep	

 Client: Ensolum
 Job ID: 890-3382-1

 Project/Site: JRU DI 11 Ekalaka 832H
 SDG: 03E1558118

GC Semi VOA (Continued)

Prep Batch: 38890 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3382-3	PH04B	Total/NA	Solid	8015NM Prep	
890-3382-4	PH04C	Total/NA	Solid	8015NM Prep	
890-3382-5	PH04D	Total/NA	Solid	8015NM Prep	
MB 880-38890/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38890/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38890/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3372-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3372-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3382-1	PH04	Total/NA	Solid	8015 NM	
890-3382-2	PH04A	Total/NA	Solid	8015 NM	
890-3382-3	PH04B	Total/NA	Solid	8015 NM	
890-3382-4	PH04C	Total/NA	Solid	8015 NM	
890-3382-5	PH04D	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3382-1	PH04	Soluble	Solid	DI Leach	_
890-3382-2	PH04A	Soluble	Solid	DI Leach	
890-3382-3	PH04B	Soluble	Solid	DI Leach	
890-3382-4	PH04C	Soluble	Solid	DI Leach	
890-3382-5	PH04D	Soluble	Solid	DI Leach	
MB 880-38846/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38846/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38846/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3380-A-40-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3380-A-40-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 39043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3382-1	PH04	Soluble	Solid	300.0	38846
890-3382-2	PH04A	Soluble	Solid	300.0	38846
890-3382-3	PH04B	Soluble	Solid	300.0	38846
890-3382-4	PH04C	Soluble	Solid	300.0	38846
890-3382-5	PH04D	Soluble	Solid	300.0	38846
MB 880-38846/1-A	Method Blank	Soluble	Solid	300.0	38846
LCS 880-38846/2-A	Lab Control Sample	Soluble	Solid	300.0	38846
LCSD 880-38846/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38846
890-3380-A-40-B MS	Matrix Spike	Soluble	Solid	300.0	38846
890-3380-A-40-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38846

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Project/Site: JRU DI 11 Ekalaka 832H

Job ID: 890-3382-1

SDG: 03E1558118

Client Sample ID: PH04

Lab Sample ID: 890-3382-1

Matrix: Solid

Date Collected: 11/03/22 13:10 Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	38960	11/10/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39229	11/10/22 23:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39311	11/11/22 09:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			38967	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/08/22 02:39	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	38846	11/07/22 10:40	KS	EET MID
Soluble	Analysis	300.0		1			39043	11/10/22 15:17	CH	EET MID

Client Sample ID: PH04A Lab Sample ID: 890-3382-2

Date Collected: 11/03/22 13:15 Matrix: Solid Date Received: 11/04/22 08:38

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 4.99 g 5 mL 38960 11/10/22 13:34 MNR EET MID Total/NA 8021B 5 mL 11/10/22 23:48 **EET MID** Analysis 1 5 mL 39229 MNR Total/NA Total BTEX 39311 11/11/22 09:54 Analysis SM **EET MID** 1 Total/NA Analysis 8015 NM 38967 11/08/22 09:57 SM **EET MID** Total/NA 38890 11/07/22 14:24 Prep 8015NM Prep 10.02 g 10 mL DM EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 38805 11/08/22 02:59 SM **EET MID** Soluble 11/07/22 10:40 KS Leach DI Leach 4.95 g 50 mL 38846 EET MID Soluble Analysis 300.0 39043 11/10/22 15:22 СН **EET MID**

Client Sample ID: PH04B Lab Sample ID: 890-3382-3

Date Collected: 11/03/22 13:20 **Matrix: Solid** Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	38960	11/10/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39229	11/11/22 00:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39311	11/11/22 09:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			38967	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/08/22 03:19	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	38846	11/07/22 10:40	KS	EET MID
Soluble	Analysis	300.0		1			39043	11/10/22 15:27	CH	EET MID

Client Sample ID: PH04C Lab Sample ID: 890-3382-4

Date Collected: 11/03/22 13:30 **Matrix: Solid** Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	38960	11/10/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39229	11/11/22 00:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39311	11/11/22 09:54	SM	EET MID

Lab Chronicle

Client: Ensolum Job ID: 890-3382-1 Project/Site: JRU DI 11 Ekalaka 832H SDG: 03E1558118

Client Sample ID: PH04C

Date Collected: 11/03/22 13:30 Date Received: 11/04/22 08:38

Lab Sample ID: 890-3382-4

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			38967	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/08/22 03:40	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	38846	11/07/22 10:40	KS	EET MID
Soluble	Analysis	300.0		1			39043	11/10/22 15:32	CH	EET MID

Client Sample ID: PH04D Lab Sample ID: 890-3382-5

Date Collected: 11/03/22 14:15

Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	38960	11/10/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39229	11/11/22 01:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39311	11/11/22 09:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			38967	11/08/22 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	38890	11/07/22 14:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38805	11/08/22 04:00	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	38846	11/07/22 10:40	KS	EET MID
Soluble	Analysis	300.0		1			39043	11/10/22 15:37	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3382-1

 Project/Site: JRU DI 11 Ekalaka 832H
 SDG: 03E1558118

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date	
Texas	NE	ELAP	T104704400-22-24	06-30-23	
The following analytes	are included in this report by		and because the analysis of the same of the same		
the agency does not of	• '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for	
,	• '	Matrix	ed by the governing authority. This list ma	ay include analytes for	
the agency does not of	fer certification.	•	, , ,	ay include analytes for	

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Method Summary

Client: Ensolum

Job ID: 890-3382-1 Project/Site: JRU DI 11 Ekalaka 832H

SDG: 03E1558118

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 832H

Job ID: 890-3382-1

SDG: 03E1558118

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3382-1	PH04	Solid	11/03/22 13:10	11/04/22 08:38	0.5'
890-3382-2	PH04A	Solid	11/03/22 13:15	11/04/22 08:38	2'
890-3382-3	PH04B	Solid	11/03/22 13:20	11/04/22 08:38	4'
890-3382-4	PH04C	Solid	11/03/22 13:30	11/04/22 08:38	6'
890-3382-5	PH04D	Solid	11/03/22 14:15	11/04/22 08:38	10'

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R

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12

14

Relinquished by: (Signature)

Received by: (Signature)

EE/11/11

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020.2

eurofins

Chain of Custody

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

hone: 3	303-887-2946	-		Email:	Email: Garrett Gree	ireeng	DEXX	nMob	NI, COII			Deliverables: EDD	ADaPT Other:	
roject Name:	JRU DI 11 Ekalaka 823H	Ekalak	ка 823Н	Turn	Turn Around						ANALYSIS REQ	EQUEST	Preservative Codes	
roject Number:	03E	03E1558118	8	✓] Routine	☐ Rush		Pres. Code						None: NO DI Water: H ₂ O	
roject Location:				Due Date:									Cool: Cool MeOH: Me	
ampler's Name:	Conno	Connor Whitman	man	TAT starts the day received by	e day receiv	/ed by							HCL: HC HNO ₃ : HN	
0#				the lab, if received by 4:30pm	eived by 4:	30pm	rs						H ₂ SO ₄ : H ₂ NaOH: Na	
AMPLE RECEIPT	Temp Blank:	ank:	Yes (No.	Wet Ice:	(ŏ	nete)					H ₃ PO ₄ : HP	
amples Received Intact	es	No	Thermometer ID:	D:	tom-60	90 7	aran	300.					NaHSO ₄ : NABIS	
ooler Custody Seals:	Yes No	MA	Correction Factor:	tor:	20	Ü	Pa	PA:					Na ₂ S ₂ O ₃ : NaSO ₃	
ample Custody Seals:	Yes No	N N	Temperature Reading:	eading:	드	\bigcirc		(EF)	Coo-coc Chain of C	custody	Zn Acetate+NaOH: Zn	
otal Containers:			Corrected Temperature	perature:	W	20		IDES	15)	3021			NaOH+Ascorbic Acid: SAPC	
Sample Identification	fication	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of	CHLOR	TPH (80	BTEX (Sample Comments	
PH04		S	11/3/2022	1:10	0.5	Grab	_	×	×	×			Incident ID:	
PH04A		S	11/3/2022	1:15	2'	Grab	_	×	×	×			NAPP2224527297	
PH04B		တ	11/3/2022	1:20	4_	Grab	_	×	×	×			Cost Center:	
PH04C		တ	11/3/2022	1:30	ගු	Grab	_	×	×	×			2104541001	
PH04D		ဟ	11/3/2022	2:15	10'	Grab	1	×	×	×			AFE:	
													DD.2019.06665.CAP.CMP	
					•									
:					1		_	_						
						\perp			2	~				
									1	/_				
Total 200.7 / 6010	0 200.8 / 6020:	20:	8RC	8RCRA 13PPM	M Texas 11 Al Sb As Ba Be B	s 11 /	dS N	As E	3a Be	ВС	Cd Ca Cr Co Cu Fe Pb	Mg Mn Mo Ni K Se Ag	Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn	
ircle Method(s) and Metal(s) to be analyzed	Metal(s) to be	analya	zed	TCLP / SPLP 6010: 8RCRA	LP 6010	. 8RC	RA	Sb As Ba Be	Ba	Be C	Cd Cr Co Cu Pb Mn Mo	Ni Se Ag TI U	Hg: 1631 / 245.1 / 7470 / 7471	
tice: Signature of this doo	cument and relinqui	shment o	of samples constitu	ites a valid purc	hase order	from clie	nt comp	any to I	Eurofin	s Xenco	tice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It	. It assigns standard terms and conditions re due to circumstances beyond the control	tions	
Eurofins Xenco. A minim	um charge of \$85.00) will be a	applied to each pro	ject and a char	ge of \$5 for	each sar	nple sul	mitted	to Euro	fins Xei	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 we	Eurofins Xence. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xence, but not analyzed. These terms will be enforced unless previously negotiated.	gotiated.	

SAMPLE RECEIPT

Total Containers:

Project Number:

Project Name:

City, State ZIP:

Carlsbad, NM 88220

City, State ZIP:

Carlsbad, NM 88220 3104 E. Green St XTO Energy

Reporting: Level II

Level III

PST/UST

TRRP

Level IV

State of Project:

Program: UST/PST ☐ PRP☐ Brownfields☐ RRC ☐ Superfund ☐

Work Order Comments

www.xenco.com

Page

<u>Q</u>

3122 National Parks Hwy

Project Manager:

Ben Belill

Bill to: (if different)

Garrett Green

Company Name:

Company Name:

Ensolum

Sampler's Name: Project Location:

Work Order No:

Eurofins Carlsbad 1089 N Canal St

Chain of Custody Record

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Environment Testing

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC altention states should be brought to Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC. PH04 (890-3382-1) Sample Identification - Client ID (Lab ID) State Zip: TX 79701 PH04D (890-3382-5) PH04C (890-3382-4) PH04B (890-3382-3) Deliverable Requested | | | | | | | | | Other (specify) PH04A (890-3382-2) JRU DI 11 Ekalaka 832H Eurofins Environment Testing South Centr Carlsbad NM 88220 Phone: 575-988-3199 Fax: 575-988-3199 mpty Kit Relinquished by ossible Hazard Identification 432-704-5440(Tel) 1211 W Florida Ave Shipping/Receiving Client Information (Sub Contract Lab) /lidland elinquished by: elinquished by: Custody Seals Intact: Yes 8 and a Custody Seal No Date/Time: Project #: 89000093 Date/Time Primary Deliverable Rank. 2 Sampler Date/Time Due Date Requested 11/10/2022 FAT Requested (days) Sample Date 11/3/22 11/3/22 11/3/22 11/3/22 11/3/22 Date Mountain 13 20 Mountain 14 15 Mountain 13 30 Mountain 13 15 Mountain Sample 13 10 (C=comp, Sample Type Preservation Code: Company BT=Tissue, A=A Company Company Matrix Solid Solid Solid Solid Solid Jessica Kramer@et.eurofinsus com Kramer Jessica Accreditations Required (See note)
NELAP - Texas ime Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Month Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Received by × 8015MOD_NM/8015NM_S_Prep (MOD) Full TPH Cooler Temperature(s) °C and Other Remarks × × \times × × × × × × 8015MOD_Calc × × × × 300_ORGFM_28D/DI_LEACH Chloride × × × × 8021B/5035FP_Calc (MOD) BTEX Analysis Requested × Total_BTEX_GCV × × × × State of Origin: New Mexico Date/Time Date/Time 100 Total Number of containers 1 A HCL
B NaOH
C D Acetate
D Nitric Acid
E NaHSO4
F MeOH
G Amchlor
H Ascorbic Acid Page Page 1 of 1 COC No 890-1010 1 890-3382-1 Ice
DI Water
EDTA
EDA Special Instructions/Note Ver: 06/08/2021 Company 1 Hexane
1 None
2 Nations
2 Na2O4S
3 Na2SO3
3 Na2SO3
3 Na2SO3
3 Na2SO3
4 Na2SO3
4 Na2SO3
4 Na2SO4
7 TSP Dodecahydrate
J Acetone
ther (specify)

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3382-1

SDG Number: 03E1558118

Login Number: 3382 List Source: Eurofins Carlsbad

List Number: 1 Creator: Stutzman, Amanda

Question Answer Comment The cooler's custody seal, if present, is intact. True Sample custody seals, if present, are intact. True The cooler or samples do not appear to have been compromised or True tampered with. Samples were received on ice. True True Cooler Temperature is acceptable. 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 True HTs) True Sample containers have legible labels. 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

N/A

True

N/A

2

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14

Sample Preservation Verified.

MS/MSDs

<6mm (1/4").

There is sufficient vol. for all requested analyses, incl. any requested

Containers requiring zero headspace have no headspace or bubble is

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3382-1 SDG Number: 03E1558118

> **List Source: Eurofins Midland** List Creation: 11/07/22 09:10 AM

List Number: 2 Creator: Teel, Brianna

Login Number: 3382

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

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill Ensolum

705 W. Wadley Suite 210

Midland Texas 79701

JOB DESCRIPTION

JRU DI 11 Ekalaka 823H SDG NUMBER 03E1558118

JOB NUMBER

890-3383-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM88220



Client: Ensolum Laboratory Job ID: 890-3383-1 Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

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Definitions/Glossary

Job ID: 890-3383-1 Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H

SDG: 03E1558118

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

LCS/LCSD RPD exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

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

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

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

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

Detection Limit (DoD/DOE) DL

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

DLC Decision Level Concentration (Radiochemistry)

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

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

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

NC Not Calculated

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

NFG 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)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3383-1

SDG: 03E1558118

Job ID: 890-3383-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3383-1

Receipt

The samples were received on 11/4/2022 8:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH05 (890-3383-1), PH05A (890-3383-2), PH05B (890-3383-3), PH05C (890-3383-4) and PH05D (890-3383-5).

GC VOA

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

GC Semi VOA

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-38974 and analytical batch 880-39056 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC

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

Client: Ensolum Job ID: 890-3383-1 Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Client Sample ID: PH05 Lab Sample ID: 890-3383-1 Matrix: Solid

Date Collected: 11/03/22 14:20 Date Received: 11/04/22 08:38

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/14/22 13:45	11/15/22 11:42	1
Toluene	< 0.00199	U	0.00199	mg/Kg		11/14/22 13:45	11/15/22 11:42	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		11/14/22 13:45	11/15/22 11:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/14/22 13:45	11/15/22 11:42	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		11/14/22 13:45	11/15/22 11:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/14/22 13:45	11/15/22 11:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			11/14/22 13:45	11/15/22 11:42	1
1,4-Difluorobenzene (Surr)	95		70 - 130			11/14/22 13:45	11/15/22 11:42	1
- Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/15/22 15:07	1
Method: SW846 8015 NM - Diese	ol Banga Organ	ice (DBO) (30)					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/10/22 09:40	
				5 5			11/10/22 09.40	1
- Method: SW846 8015B NM - Die:	sel Range Orga	nics (DRO)	(GC)	3 3			11/10/22 09.40	1
- Method: SW846 8015B NM - Die: Analyte	•	nics (DRO) Qualifier	(GC)	Unit	D	Prepared	Analyzed	1 Dil Fac
Analyte Gasoline Range Organics	•	Qualifier	•		<u>D</u>	Prepared 11/08/22 10:44		
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	Qualifier U	RL	Unit	<u>D</u>		Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9	Qualifier U U *1	RL 49.9	Unit mg/Kg	<u> </u>	11/08/22 10:44	Analyzed 11/09/22 14:43	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9 <49.9	Qualifier U U*1	49.9 49.9	Unit mg/Kg mg/Kg	<u>D</u>	11/08/22 10:44 11/08/22 10:44	Analyzed 11/09/22 14:43 11/09/22 14:43	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.9 <49.9	Qualifier U U*1	RL 49.9 49.9 49.9	Unit mg/Kg mg/Kg	<u>D</u>	11/08/22 10:44 11/08/22 10:44 11/08/22 10:44	Analyzed 11/09/22 14:43 11/09/22 14:43	Dil Fac 1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate	Result	Qualifier U U*1	RL 49.9 49.9 49.9 <i>Limits</i>	Unit mg/Kg mg/Kg	<u> </u>	11/08/22 10:44 11/08/22 10:44 11/08/22 10:44 <i>Prepared</i>	Analyzed 11/09/22 14:43 11/09/22 14:43 11/09/22 14:43 Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U U*1 U Qualifier	RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u> </u>	11/08/22 10:44 11/08/22 10:44 11/08/22 10:44 Prepared 11/08/22 10:44	Analyzed 11/09/22 14:43 11/09/22 14:43 11/09/22 14:43 Analyzed 11/09/22 14:43	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier U U*1 U Qualifier	RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	11/08/22 10:44 11/08/22 10:44 11/08/22 10:44 Prepared 11/08/22 10:44	Analyzed 11/09/22 14:43 11/09/22 14:43 11/09/22 14:43 Analyzed 11/09/22 14:43	Dil Fac

Client Sample ID: PH05A Lab Sample ID: 890-3383-2

Date Collected: 11/03/22 14:25 Date Received: 11/04/22 08:38

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/14/22 13:45	11/15/22 12:02	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/14/22 13:45	11/15/22 12:02	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/14/22 13:45	11/15/22 12:02	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		11/14/22 13:45	11/15/22 12:02	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/14/22 13:45	11/15/22 12:02	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/14/22 13:45	11/15/22 12:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			11/14/22 13:45	11/15/22 12:02	

Eurofins Carlsbad

Matrix: Solid

Client: Ensolum

Job ID: 890-3383-1 SDG: 03E1558118 Project/Site: JRU DI 11 Ekalaka 823H

Client Sample ID: PH05A Lab Sample ID: 890-3383-2

Date Collected: 11/03/22 14:25 **Matrix: Solid** Date Received: 11/04/22 08:38

Sample Depth: 2'

Method: SW846 8021B	- Volatile Organic Compound	s (GC) (Continued)
motiloa. Otto-to coz ib	Tolutile Organie Compound	5 (5 5) (5 5) (11) (11)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	96	70 - 130	11/14/22 13:45	11/15/22 12:02	1

Mothod: TAI	COD Total DTEV	- Total BTEX Calculation
Metriou. IAI	- SUP IULAI BIEA :	· IOIAI DIEA CAICUIALIOII

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396 U	0.00396	ma/Ka			11/15/22 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	ma/Ka			11/10/22 09:40	1

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

			()					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		11/08/22 10:44	11/09/22 15:05	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U *1	49.9	mg/Kg		11/08/22 10:44	11/09/22 15:05	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/08/22 10:44	11/09/22 15:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130	11/08/22 10:44	11/09/22 15:05	1
o-Terphenyl	112		70 - 130	11/08/22 10:44	11/09/22 15:05	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.0		5.00	mg/Kg			11/10/22 15:47	1

Client Sample ID: PH05B Lab Sample ID: 890-3383-3

Date Collected: 11/03/22 14:30 Date Received: 11/04/22 08:38

Sample Depth: 4'

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

Mictiloa. Offoro COZ ID - Volat	ne organie comp		,					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/14/22 13:45	11/15/22 12:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/14/22 13:45	11/15/22 12:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/14/22 13:45	11/15/22 12:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/14/22 13:45	11/15/22 12:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/14/22 13:45	11/15/22 12:23	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/14/22 13:45	11/15/22 12:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1 Promofluorobonzono (Surr)			70 120			11/11/22 12:15	11/15/22 12:22	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzea	DII Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	11/14/22 13:45	11/15/22 12:23	1
1,4-Difluorobenzene (Surr)	72		70 - 130	11/14/22 13:45	11/15/22 12:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Released to Imaging: 6/16/2023 10:00:29 AM

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399	ma/Ka			11/15/22 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/10/22 09:40	1

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Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3383-3

Lab Sample ID: 890-3383-4

Matrix: Solid

Job ID: 890-3383-1

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Client Sample ID: PH05B Date Collected: 11/03/22 14:30 Date Received: 11/04/22 08:38

Sample Depth: 4'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/08/22 10:44	11/09/22 15:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		11/08/22 10:44	11/09/22 15:28	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/08/22 10:44	11/09/22 15:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			11/08/22 10:44	11/09/22 15:28	1
o-Terphenyl	102		70 - 130			11/08/22 10:44	11/09/22 15:28	1

Result Qualifier Analyte RL Unit D Prepared Analyzed Dil Fac 5.00 11/11/22 05:59 Chloride 29.2 mg/Kg

Client Sample ID: PH05C

Date Collected: 11/03/22 14:35

Date Received: 11/04/22 08:38

Sample Depth: 6'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/14/22 13:45	11/15/22 12:43	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/14/22 13:45	11/15/22 12:43	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/14/22 13:45	11/15/22 12:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/14/22 13:45	11/15/22 12:43	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/14/22 13:45	11/15/22 12:43	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/14/22 13:45	11/15/22 12:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130			11/14/22 13:45	11/15/22 12:43	1
1,4-Difluorobenzene (Surr)	100		70 - 130			11/14/22 13:45	11/15/22 12:43	1
Method: TAL SOP Total BTEX - T	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	П	0.00402	mg/Kg			11/15/22 15:07	1
IUIAI DI EX	₹0.00402	U	0.00402	mg/Ng			11/10/22 10.07	
IOIAI BIEA -	10.00402	O	0.00402	mg/kg			11/10/22 10.07	
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (mg/kg			11/10/22 10:01	·
• •	el Range Organ			Unit	D	Prepared	Analyzed	Dil Fac
: Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)		<u>D</u>	Prepared		·
Method: SW846 8015 NM - Diese Analyte	Range Organ Result <49.8	ics (DRO) (Qualifier	RL 49.8	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	el Range Organ Result <49.8 sel Range Organ	ics (DRO) (Qualifier	RL 49.8	Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	el Range Organ Result <49.8 sel Range Organ	Qualifier Unics (DRO) Qualifier	RL 49.8 (GC)	Unit mg/Kg			Analyzed 11/10/22 09:40	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	el Range Organ Result <49.8 sel Range Orga Result	ics (DRO) ((Qualifier U nics (DRO) Qualifier U	RL 49.8 (GC)	Unit mg/Kg		Prepared	Analyzed 11/10/22 09:40 Analyzed	Dil Fac Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	el Range Organ Result <49.8 sel Range Orga Result <49.8	ics (DRO) ((Qualifier U nics (DRO) Qualifier U	GC) RL 49.8 (GC) RL 49.8	Unit mg/Kg Unit mg/Kg		Prepared 11/08/22 10:44	Analyzed 11/10/22 09:40 Analyzed 11/09/22 16:13	Dil Fac Dil Fac 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range Organ Result <49.8 sel Range Orga Result <49.8	ics (DRO) ((Qualifier U nics (DRO) Qualifier U U*1	GC) RL 49.8 (GC) RL 49.8	Unit mg/Kg Unit mg/Kg		Prepared 11/08/22 10:44	Analyzed 11/10/22 09:40 Analyzed 11/09/22 16:13	Dil Fac Dil Fac 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Organ Result <49.8 sel Range Orga Result <49.8 <49.8	ics (DRO) ((Qualifier U nics (DRO) Qualifier U U*1	GC) RL 49.8 (GC) RL 49.8 49.8	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 11/08/22 10:44 11/08/22 10:44	Analyzed 11/10/22 09:40 Analyzed 11/09/22 16:13 11/09/22 16:13	Dil Fac Dil Fac 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	el Range Organ Result <49.8 sel Range Orga Result <49.8 <49.8 <49.8	ics (DRO) ((Qualifier U nics (DRO) Qualifier U U*1	GC) RL 49.8 (GC) RL 49.8 49.8 49.8	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 11/08/22 10:44 11/08/22 10:44 11/08/22 10:44	Analyzed 11/10/22 09:40 Analyzed 11/09/22 16:13 11/09/22 16:13	Dil Fac Dil Fac 1 1 1

Matrix: Solid

Job ID: 890-3383-1

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Client Sample ID: PH05C Lab Sample ID: 890-3383-4 Date Collected: 11/03/22 14:35 Matrix: Solid

Date Received: 11/04/22 08:38

Sample Depth: 6'

Method: MCAWW 300.0 - Anions, lo	n Chromato	graphy - Soli	uble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.4		4.99	mg/Kg			11/11/22 06:20	1

Client Sample ID: PH05D Lab Sample ID: 890-3383-5

Date Collected: 11/03/22 14:55 Date Received: 11/04/22 08:38

Sample Depth: 10'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00202	U	0.00202	mg/Kg		11/14/22 13:45	11/15/22 13:04	-
Toluene	<0.00202	U	0.00202	mg/Kg		11/14/22 13:45	11/15/22 13:04	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		11/14/22 13:45	11/15/22 13:04	
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		11/14/22 13:45	11/15/22 13:04	
o-Xylene	<0.00202	U	0.00202	mg/Kg		11/14/22 13:45	11/15/22 13:04	
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		11/14/22 13:45	11/15/22 13:04	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	95		70 - 130			11/14/22 13:45	11/15/22 13:04	
1,4-Difluorobenzene (Surr)	97		70 - 130			11/14/22 13:45	11/15/22 13:04	
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00403	U	0.00403	mg/Kg			11/15/22 15:07	
Analyte Total TPH		Qualifier U	RL 49.9	mg/Kg	D	Prepared	Analyzed 11/10/22 09:40	Dil Fa
Total TPH	<49.9	U	49.9	mg/Kg		<u> </u>		
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/08/22 10:44	11/09/22 16:35	,
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		11/08/22 10:44	11/09/22 16:35	,
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/08/22 10:44	11/09/22 16:35	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	81		70 - 130			11/08/22 10:44	11/09/22 16:35	
o-Terphenyl	83		70 - 130			11/08/22 10:44	11/09/22 16:35	
Method: MCAWW 300.0 - Anions	, Ion Chromato	graphy - So	oluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
			4.95	mg/Kg				

Surrogate Summary

Client: Ensolum Job ID: 890-3383-1 Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits
		BFB1	DFBZ1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
80-21421-A-41-C MS	Matrix Spike	88	123	
80-21421-A-41-D MSD	Matrix Spike Duplicate	94	116	
90-3383-1	PH05	96	95	
90-3383-2	PH05A	96	96	
90-3383-3	PH05B	98	72	
90-3383-4	PH05C	97	100	
90-3383-5	PH05D	95	97	
.CS 880-39499/1-A	Lab Control Sample	106	113	
.CSD 880-39499/2-A	Lab Control Sample Dup	104	114	
MB 880-39499/5-A	Method Blank	81	98	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3379-A-1-C MS	Matrix Spike	87	83	
890-3379-A-1-D MSD	Matrix Spike Duplicate	89	85	
890-3383-1	PH05	92	93	
890-3383-2	PH05A	113	112	
890-3383-3	PH05B	103	102	
890-3383-4	PH05C	103	100	
890-3383-5	PH05D	81	83	
LCS 880-38974/2-A	Lab Control Sample	89	92	
LCSD 880-38974/3-A	Lab Control Sample Dup	113	118	
MB 880-38974/1-A	Method Blank	100	102	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Released to Imaging: 6/16/2023 10:00:29 AM

Client: Ensolum

Job ID: 890-3383-1 SDG: 03E1558118

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39499/5-A

Lab Sample ID: LCS 880-39499/1-A

Matrix: Solid

Analysis Batch: 39575

Project/Site: JRU DI 11 Ekalaka 823H

Matrix: Solid Analysis Batch: 39575 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39499

	мв	мв						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/14/22 13:45	11/15/22 10:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/14/22 13:45	11/15/22 10:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/14/22 13:45	11/15/22 10:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/14/22 13:45	11/15/22 10:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/14/22 13:45	11/15/22 10:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/14/22 13:45	11/15/22 10:39	1

MB MB

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	4-Bromofluorobenzene (Surr)	81		70 - 130	11/14/22 13:4:	11/15/22 10:39	1
ı	1,4-Difluorobenzene (Surr)	98		70 - 130	11/14/22 13:4	5 11/15/22 10:39	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39499

Prep Type: Total/NA

Prep Batch: 39499

35

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1063 mg/Kg 106 70 - 130 Toluene 0.100 0.09516 mg/Kg 95 70 - 130 0.100 0.09661 97 Ethylbenzene mg/Kg 70 - 130 70 - 130 0.200 0.2040 102 m-Xylene & p-Xylene mg/Kg 0.100 o-Xylene 0.1010 mg/Kg 101 70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid Analysis Batch: 39575

RPD LCSD LCSD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Limit Benzene 0.100 0.1078 mg/Kg 108 70 - 130 35 Toluene 0.100 0.09311 mg/Kg 93 70 - 130 2 35 Ethylbenzene 0.100 0.09402 mg/Kg 94 70 - 130 35 3 m-Xylene & p-Xylene 0.200 0.1961 mg/Kg 98 70 - 130 35

0.09679

mg/Kg

0.100

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1.4-Difluorobenzene (Surr)	114		70 - 130

Lab Sample ID: 880-21421-A-41-C MS

Lab Sample ID: LCSD 880-39499/2-A

Matrix: Solid

o-Xylene

Analysis Batch: 39575

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

70 - 130

Prep Batch: 39499

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.100	0.08441		mg/Kg	_	84	70 - 130	
Toluene	< 0.00200	U	0.100	0.08589		mg/Kg		86	70 - 130	

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Prep Batch: 39499

Prep Type: Total/NA

Prep Batch: 38974

QC Sample Results

Job ID: 890-3383-1 Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

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

Lab Sample ID: 880-21421-A-41-C MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid Analysis Batch: 39575

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00200	U	0.100	0.08194		mg/Kg		82	70 - 130	
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1657		mg/Kg		83	70 - 130	
o-Xylene	<0.00200	U	0.100	0.08082		mg/Kg		81	70 - 130	

MS MS Qualifier %Recovery Limits Surrogate 70 - 130 4-Bromofluorobenzene (Surr) 88 1,4-Difluorobenzene (Surr) 70 - 130 123

Lab Sample ID: 880-21421-A-41-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 39575

Analysis Batch: 39575									Prep	Batch:	39499
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0998	0.1033		mg/Kg		103	70 - 130	20	35
Toluene	<0.00200	U	0.0998	0.08823		mg/Kg		88	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.0998	0.08607		mg/Kg		86	70 - 130	5	35
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1755		mg/Kg		88	70 - 130	6	35
o-Xylene	<0.00200	U	0.0998	0.08581		mg/Kg		86	70 - 130	6	35

MSD MSD Surrogate Qualifier Limits %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 94 1,4-Difluorobenzene (Surr) 116 70 - 130

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

Lab Sample ID: MB 880-38974/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 39056

MB	MB						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0	U	50.0	mg/Kg		11/08/22 10:44	11/09/22 08:44	1
<50.0	U	50.0	mg/Kg		11/08/22 10:44	11/09/22 08:44	1
<50.0	U	50.0	mg/Kg		11/08/22 10:44	11/09/22 08:44	1
	Result <50.0 <50.0 <50.0	MB MB Qualifier U	Result Qualifier RL <50.0	Result Qualifier RL Unit <50.0	Result Qualifier RL Unit D <50.0	Result Qualifier RL Unit D Prepared <50.0	Result Qualifier RL Unit D Prepared Analyzed <50.0

MB MB %Recovery Qualifier Limits Prepared Dil Fac Surrogate Analyzed 1-Chlorooctane 100 70 - 130 11/08/22 10:44 11/09/22 08:44 102 70 - 130 11/08/22 10:44 11/09/22 08:44 o-Terphenyl

Lab Sample ID: LCS 880-38974/2-A Client Sample ID: Lab Control Sample

Analysis Batch: 39056

Matrix: Solid

Prep Batch: 38974 Spike LCS LCS %Rec Added Analyte Result Qualifier Unit %Rec Limits 1000 108 70 - 130 1081 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 820.0 mg/Kg 82 70 - 130

C10-C28)

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Prep Type: Total/NA

Job ID: 890-3383-1 Project/Site: JRU DI 11 Ekalaka 823H

SDG: 03E1558118

Prep Type: Total/NA

Prep Batch: 38974

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

L

Lab Sample ID: LCS 880-38974/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid

Client: Ensolum

Analysis Batch: 39056

.CS LCS		
erv Qualifier	Limits	

Surrogate %Recove 70 - 130 1-Chlorooctane 89 o-Terphenyl 92 70 - 130

Lab Sample ID: LCSD 880-38974/3-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 39056							Prep	Batch:	38974
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	933.7		mg/Kg		93	70 - 130	15	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1075	*1	mg/Kg		108	70 - 130	27	20
C10-C28)									

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

118 70 - 130 o-Terphenyl

Lab Sample ID: 890-3379-A-1-C MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

C10-C28)

Analysis Batch: 39056									Pre	p Batch: 38974
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	767.1		mg/Kg		77	70 - 130	
Diesel Range Organics (Over	<50.0	U *1	997	942.4		mg/Kg		95	70 - 130	

MS MS %Recovery Qualifier Surrogate Limits

70 - 130 1-Chlorooctane 87 o-Terphenyl 83 70 - 130

Lab Sample ID: 890-3379-A-1-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 39056

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Gasoline Range Organics <50.0 U 999 759.2 76 20 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U *1 999 978.9 mg/Kg 98 70 - 130 20

C10-C28)

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	85		70 - 130

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Prep Batch: 38974

Client Sample ID: Method Blank

Prep Type: Soluble

Job ID: 890-3383-1 Project/Site: JRU DI 11 Ekalaka 823H SDG: 03E1558118

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38846/1-A

Matrix: Solid

Analysis Batch: 39043

MB MB

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 11/10/22 13:18

Lab Sample ID: LCS 880-38846/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Client: Ensolum

Analysis Batch: 39043

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	265.9		ma/Ka		106	90 - 110	

Lab Sample ID: LCSD 880-38846/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39043

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	266.8		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-3380-A-40-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39043

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	44.6		250	305.4		mg/Kg		104	90 - 110	

Lab Sample ID: 890-3380-A-40-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39043

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	44.6		250	305.8		ma/Ka		104	90 - 110		20	

Lab Sample ID: 890-3381-A-2-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39043

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	2950		2520	5533		mg/Kg	_	102	90 - 110	

Lab Sample ID: 890-3381-A-2-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39043

•	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	2950		2520	5488		mg/Kg		101	90 - 110	1	20	

Lab Sample ID: MB 880-38849/1-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 39146

мв мв Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride 5.00 11/11/22 05:37 <5.00 U mg/Kg

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Prep Type: Soluble

QC Sample Results

Client: Ensolum Job ID: 890-3383-1 Project/Site: JRU DI 11 Ekalaka 823H

SDG: 03E1558118

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 880-38849/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39146

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 250 260.5 mg/Kg 104 90 - 110

Lab Sample ID: LCSD 880-38849/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39146

Spike LCSD LCSD %Rec RPD Added Result Qualifier RPD Limit Analyte Unit D %Rec Limits Chloride 250 273.8 mg/Kg 110

Lab Sample ID: 890-3383-3 MS Client Sample ID: PH05B **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39146

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 29.2 250 279.1 100 mg/Kg 90 - 110

Lab Sample ID: 890-3383-3 MSD Client Sample ID: PH05B **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39146

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Qualifier Unit %Rec RPD Limit Result Limits 286.0 Chloride 29.2 250 103 90 - 110 20 mg/Kg

Client: Ensolum Project/Site: JRU DI 11 Ekalaka 823H Job ID: 890-3383-1 SDG: 03E1558118

GC VOA

Prep Batch: 39499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3383-1	PH05	Total/NA	Solid	5035	
890-3383-2	PH05A	Total/NA	Solid	5035	
890-3383-3	PH05B	Total/NA	Solid	5035	
890-3383-4	PH05C	Total/NA	Solid	5035	
890-3383-5	PH05D	Total/NA	Solid	5035	
MB 880-39499/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39499/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39499/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21421-A-41-C MS	Matrix Spike	Total/NA	Solid	5035	
880-21421-A-41-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 39575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3383-1	PH05	Total/NA	Solid	8021B	39499
890-3383-2	PH05A	Total/NA	Solid	8021B	39499
890-3383-3	PH05B	Total/NA	Solid	8021B	39499
890-3383-4	PH05C	Total/NA	Solid	8021B	39499
890-3383-5	PH05D	Total/NA	Solid	8021B	39499
MB 880-39499/5-A	Method Blank	Total/NA	Solid	8021B	39499
LCS 880-39499/1-A	Lab Control Sample	Total/NA	Solid	8021B	39499
LCSD 880-39499/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39499
880-21421-A-41-C MS	Matrix Spike	Total/NA	Solid	8021B	39499
880-21421-A-41-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39499

Analysis Batch: 39629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3383-1	PH05	Total/NA	Solid	Total BTEX	
890-3383-2	PH05A	Total/NA	Solid	Total BTEX	
890-3383-3	PH05B	Total/NA	Solid	Total BTEX	
890-3383-4	PH05C	Total/NA	Solid	Total BTEX	
890-3383-5	PH05D	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 38974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3383-1	PH05	Total/NA	Solid	8015NM Prep	<u> </u>
890-3383-2	PH05A	Total/NA	Solid	8015NM Prep	
890-3383-3	PH05B	Total/NA	Solid	8015NM Prep	
890-3383-4	PH05C	Total/NA	Solid	8015NM Prep	
890-3383-5	PH05D	Total/NA	Solid	8015NM Prep	
MB 880-38974/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38974/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38974/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3379-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3379-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3383-1	PH05	Total/NA	Solid	8015B NM	38974
890-3383-2	PH05A	Total/NA	Solid	8015B NM	38974

 Client: Ensolum
 Job ID: 890-3383-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

GC Semi VOA (Continued)

Analysis Batch: 39056 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3383-3	PH05B	Total/NA	Solid	8015B NM	38974
890-3383-4	PH05C	Total/NA	Solid	8015B NM	38974
890-3383-5	PH05D	Total/NA	Solid	8015B NM	38974
MB 880-38974/1-A	Method Blank	Total/NA	Solid	8015B NM	38974
LCS 880-38974/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38974
LCSD 880-38974/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38974
890-3379-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	38974
890-3379-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38974

Analysis Batch: 39196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3383-1	PH05	Total/NA	Solid	8015 NM	
890-3383-2	PH05A	Total/NA	Solid	8015 NM	
890-3383-3	PH05B	Total/NA	Solid	8015 NM	
890-3383-4	PH05C	Total/NA	Solid	8015 NM	
890-3383-5	PH05D	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3383-1	PH05	Soluble	Solid	DI Leach	
890-3383-2	PH05A	Soluble	Solid	DI Leach	
MB 880-38846/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38846/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38846/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3380-A-40-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3380-A-40-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-3381-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3381-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 38849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-3383-3	PH05B	Soluble	Solid	DI Leach	
890-3383-4	PH05C	Soluble	Solid	DI Leach	
890-3383-5	PH05D	Soluble	Solid	DI Leach	
MB 880-38849/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38849/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38849/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3383-3 MS	PH05B	Soluble	Solid	DI Leach	
890-3383-3 MSD	PH05B	Soluble	Solid	DI Leach	

Analysis Batch: 39043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3383-1	PH05	Soluble	Solid	300.0	38846
890-3383-2	PH05A	Soluble	Solid	300.0	38846
MB 880-38846/1-A	Method Blank	Soluble	Solid	300.0	38846
LCS 880-38846/2-A	Lab Control Sample	Soluble	Solid	300.0	38846
LCSD 880-38846/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38846
890-3380-A-40-B MS	Matrix Spike	Soluble	Solid	300.0	38846
890-3380-A-40-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38846

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 Client: Ensolum
 Job ID: 890-3383-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

HPLC/IC (Continued)

Analysis Batch: 39043 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3381-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	38846
890-3381-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38846

Analysis Batch: 39146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3383-3	PH05B	Soluble	Solid	300.0	38849
890-3383-4	PH05C	Soluble	Solid	300.0	38849
890-3383-5	PH05D	Soluble	Solid	300.0	38849
MB 880-38849/1-A	Method Blank	Soluble	Solid	300.0	38849
LCS 880-38849/2-A	Lab Control Sample	Soluble	Solid	300.0	38849
LCSD 880-38849/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38849
890-3383-3 MS	PH05B	Soluble	Solid	300.0	38849
890-3383-3 MSD	PH05B	Soluble	Solid	300.0	38849

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Job ID: 890-3383-1 SDG: 03E1558118 Project/Site: JRU DI 11 Ekalaka 823H

Client Sample ID: PH05

Lab Sample ID: 890-3383-1

Matrix: Solid

Date Collected: 11/03/22 14:20 Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	39499	11/14/22 13:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39575	11/15/22 11:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39629	11/15/22 15:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			39196	11/10/22 09:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	38974	11/08/22 10:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39056	11/09/22 14:43	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	38846	11/07/22 10:40	KS	EET MID
Soluble	Analysis	300.0		10			39043	11/10/22 15:42	CH	EET MID

Client Sample ID: PH05A Lab Sample ID: 890-3383-2

Date Collected: 11/03/22 14:25 **Matrix: Solid** Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	39499	11/14/22 13:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39575	11/15/22 12:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39629	11/15/22 15:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			39196	11/10/22 09:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	38974	11/08/22 10:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39056	11/09/22 15:05	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38846	11/07/22 10:40	KS	EET MID
Soluble	Analysis	300.0		1			39043	11/10/22 15:47	CH	EET MID

Client Sample ID: PH05B Lab Sample ID: 890-3383-3

Date Collected: 11/03/22 14:30 **Matrix: Solid** Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	39499	11/14/22 13:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39575	11/15/22 12:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39629	11/15/22 15:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			39196	11/10/22 09:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38974	11/08/22 10:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39056	11/09/22 15:28	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38849	11/07/22 10:42	KS	EET MID
Soluble	Analysis	300.0		1			39146	11/11/22 05:59	CH	EET MID

Client Sample ID: PH05C Lab Sample ID: 890-3383-4

Date Collected: 11/03/22 14:35 **Matrix: Solid** Date Received: 11/04/22 08:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	39499	11/14/22 13:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39575	11/15/22 12:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39629	11/15/22 15:07	SM	EET MID

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Lab Chronicle

 Client: Ensolum
 Job ID: 890-3383-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

Client Sample ID: PH05C

Date Collected: 11/03/22 14:35 Date Received: 11/04/22 08:38 Lab Sample ID: 890-3383-4

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			39196	11/10/22 09:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	38974	11/08/22 10:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39056	11/09/22 16:13	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	38849	11/07/22 10:42	KS	EET MID
Soluble	Analysis	300.0		1			39146	11/11/22 06:20	CH	EET MID

Client Sample ID: PH05D Lab Sample ID: 890-3383-5

Date Collected: 11/03/22 14:55 Date Received: 11/04/22 08:38

	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	39499	11/14/22 13:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39575	11/15/22 13:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39629	11/15/22 15:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			39196	11/10/22 09:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	38974	11/08/22 10:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39056	11/09/22 16:35	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	38849	11/07/22 10:42	KS	EET MID
Soluble	Analysis	300.0		1			39146	11/11/22 06:27	CH	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
 Job ID: 890-3383-1

 Project/Site: JRU DI 11 Ekalaka 823H
 SDG: 03E1558118

Laboratory: Eurofins Midland

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

Authority	Pi	ogram	Identification Number	Expiration Date
Texas	N	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report hi	it the laboratory is not certifi	ed by the governing authority. This list ma	v include analytes for
the agency does not of	• •	at the laboratory is not certifi	ed by the governing admonty. This list his	ay include arialytes lo
0 ,	• •	Matrix	Analyte	ay include analytes to
the agency does not of	fer certification.	•	, , ,	ay include analytes lo

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Method Summary

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3383-1

SDG: 03E1558118

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

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Sample Summary

Client: Ensolum

Project/Site: JRU DI 11 Ekalaka 823H

Job ID: 890-3383-1

SDG: 03E1558118

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3383-1	PH05	Solid	11/03/22 14:20	11/04/22 08:38	0.5'
890-3383-2	PH05A	Solid	11/03/22 14:25	11/04/22 08:38	2'
890-3383-3	PH05B	Solid	11/03/22 14:30	11/04/22 08:38	4'
890-3383-4	PH05C	Solid	11/03/22 14:35	11/04/22 08:38	6'
890-3383-5	PH05D	Solid	11/03/22 14:55	11/04/22 08:38	10'

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Relinquished by: (Signature)

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Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020.2

Received by: (Signature)

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Chain of Custody

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

Work Order No:

Work	Work Order Comments	nments		
Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐	Brownfie	ids RRC	Super	fund 🗌
State of Project:				
Reporting: Level II Level III PST/UST TRRP Level IV				
	III PST/U	ST 🗌 TRR	P Lev	èl V

Notice: Signature of this docun of service. Eurofins Xenco will of Eurofins Xenco. A minimum	Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010						PH05D	PH05C	PH05B	PH05A	PH05	Sample Identification	Total Containers:	Sample Custody Seals:	Cooler Custody Seals:	Samples Received Intact:	SAMPLE RECEIPT	PO#:	Sampler's Name:	Project Location:	Project Number:	Project Name:
nent and relinquishment of be liable only for the cost charge of \$85.00 will be	netal(s) to be analy:	200.8 / 6020:						S	S	S	S	S	ation Matrix		Yes No (N/A)	Yes No ONTA	(res No	Temp Blank:		Connor Whitman		03E1558118	JRU DI 11 Ekalaka 823H
of samples constituted for samples and samples and samplied to each pro	zed	8RC						11/3/2022	11/3/2022	11/3/2022	11/3/2022	11/3/2022	Date Sampled	Corrected Temperature	Temperature Reading	Correction Factor:	Thermometer ID:	Yes 🕼		nan		8	(a 823H
ites a valid purcl hall not assume bject and a charg	TCLP / SP	8RCRA 13PPM						2:55	2:35	2:30	2:25	2:20	Time Sampled	perature:	eading:	tor:	Ņ.	Wet Ice:	the lab, if rece	TAT starts the	Due Date:	✓ Routine	Turn
hase order from any responsibilit ge of \$5 for each	LP 6010: 8F	M Texas 11 Al Sb As						10' Grab	6' Grab	4' Grab	2' Grab	0.5' Grab	Depth Comp	2.8	(4)	6.0	Jan 490	No See	the lab, if received by 4:30pm	TAT starts the day received by		Rush	Turn Around
y for any sample si	RCRA	Al St		1				1	1	1	1	-7	# of Cont	1	1_	P	arar	nete		_	l	Code	
pany to E losses or ubmitted t	Sb As	As Ba						×	×	×	×	×	CHLOR	IDES	S (EI	PA:	300.	0)					
expense o Eurofir	Ва В	а Ве В	\forall	Đ	#	-		×	×	×	×	×	TPH (8)	-			_	_	Ļ				
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1	Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn												890-3383 Chain of Custody									ANALYSIS REQUEST
rs rol tiated.	Hg: 1631 / 245.1 / 7470 / 7471	O2 Na Sr TI Sn U V Zn					DD.2019.06665.CAP.CMP	AFE:	2104541001	Cost Center:	NAPP2224527297	Incident ID:	Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	Na ₂ S ₂ O ₃ : NaSO ₃	NaHSO4: NABIS	H₃PO₄: HP	H ₂ S0 ₄ : H ₂ NaOH: Na		<u> </u>	None: NO DI Water: H ₂ O	Preservative Codes

Phone:

City, State ZIP:

Carlsbad, NM 88220

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

3104 E. Green St

Carlsbad, NM 88220

Garrett Green

XTO Energy

3122 National Parks Hwy

303-887-2946

Company Name: Project Manager:

Ensolum

Ben Belill

\ddress:

Eurofins Carlsbad

Chain of Custody Record

<u> </u>

1089 N Canal St.	~	Chain of Custody Record	f ()														ູ້ eurotins	S	
Carlsbad NM 88220 Phone 575-988-3199 Fax: 575-988-3199			2		000	-												-	Environment Testing
Client Information (Sub Contract Lab)	Sampler			Lab PM Kramer,	M ner, Jessica	ω				್ಟ	Carrier Tracking No(s)	cking	vo(s)			ထ္က ့	COC No. 890-1010 1		
	Phone			E-Mail [.] Jessi	E-Mail [.] Jessica Kramer@et.eurofinsus	@et.eu	ırofins	us com	3	N St	State of Origin New Mexico	igin Sigin				ַסָּ	Page [.] Page 1 of 1		
Company: Eurofins Environment Testing South Centr					Accreditations Required (See not NELAP - Texas	ıs Requin Texas	ed (See									ᇙᅱ	Job #: 890-3383-1		
Address 1211 W Florida Ave	Due Date Requested 11/10/2022	ă						Anal)	alysis F	Requested	stec	_				. 	Preservation Codes	Code	M Hexane
City Midland	TAT Requested (days).	ıys).			7,						\dashv			_	,- come y	<u>ຶ</u> ດ ພ >	NaOH	_	N None O AsNaO2
State Zip: TX, 79701					ТРН										The second second	т□			
Phone: 432-704-5440(Tel)	PO#:						e								- 	<u>ا</u> س			S H2SO4 T TSP Dodecahydrate
Email	WO#				o) .						*********				P. N	416 medicities	ice Di Water		
Project Name: - IRTI DI 11 Ekalaka 823H	Project #:				s or N											uner			VV pH 4-5 Y Trizma Z other (specific)
Site	SSOW#:) (Ye										23864	12789	Other:		
			Sample	Matrix	MS/MSI											nper of			
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	- 4	(W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filte Perform N 8015MOD_I	8015MOD_0	300_ORGFI 8021B/6036	Total_BTE								Total Num	Specia		Special Instructions/Note:
	V .	X	O L	ion Code:	X		territoria Topo est	pople !			postilis.	interior de la constantia de la constantia de la constantia de la constantia de la constantia de la constantia	100			4			
PH05 (890-3383-1)	11/3/22	14 20 Mountain		Solid	×	×	×	×								4	2	200	The state of the s
PH05A (890-3383-2)	11/3/22	14 25 Mountain		Solid	×	×	×	×							~ .25				· · · · · · · · · · · · · · · · · · ·
PH05B (890-3383-3)	11/3/22	14 30 Mountain		Solid	×	×	×	×											
PH05C (890-3383-4)	11/3/22	14 35 Mountain		Solid	×	×	×	×							w . g . g				
PH05D (890-3383-5)	11/3/22	14 55 Mountain		Solid	×	×	×	×											
															Spennik Ind	<u> </u>			
										-	╁	 		ļ	30.000	1			
							_	-		-	-	<u> </u>		<u> </u>		101. usb.c.			
Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody if the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/fests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.	ant Testing South Centr above for analysis/tests bentral LLC attention in	ral LLC places t /matrix being ar nmediately If al	the ownership on alyzed the sa	of method ana mples must be creditations are	lyte & accrec shipped bac current to d	itation co k to the E ate return	mpliand jurofins in the sign	e upon Environ Ined Ch	out sub ment Te vain of C	contract sting S ustody	labora outh Ce attestin	tories intral L	This su LC lab	ample orator blicanc	shipm or ot	ent is ner in urofin	structions will is Environment	der cha be pro t Testir	ain-of-custody If the vided Any changes to ng South Central LLC.
Possible Hazard Identification					Samp	Sample Disposal (A	osal (A fee	may t)e ass	essec	ifsa	mple	s are	⊢eta	inec	ee may be assessed if samples are retained longer than 1	an 1,	month)
Deliverable Requested I III IV Other (specify)	Primary Deliverable Rank 2	able Rank 2			Specia	Special Instructions/QC	ctions	QC R	Requirements	ments	ents	27 12	ľ		,		The character of		WOMAN
Empty Kit Relinquished by		Date			Time /			۱ ۱		\exists	Me	Method of Shipment:	Shipm	ent:	I				
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Relinquished by	Date/Time:			Company	Re	Received by							Date/Time	Time					Company
Custody Seals Intact. Custody Seal No					Ç	Cooler Temperature(s)	perature	റ്	and Other Remarks	r Rema	rks		Ī						
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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3383-1 SDG Number: 03E1558118

Login Number: 3383 List Source: Eurofins Carlsbad

List Number: 1 Creator: Stutzman, Amanda

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

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3383-1 SDG Number: 03E1558118

> List Source: Eurofins Midland List Creation: 11/08/22 09:03 AM

Creator: Rodriguez, Leticia

Login Number: 3383

List Number: 2

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	

175

2

5

7

9

11

12

14

15

<6mm (1/4").

Eurofins Carlsbad

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated 11/15/2022 4:28:12 PM

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



APPENDIX F

NMOCD Notifications

From: Hamlet, Robert, EMNRD

To: Collins, Melanie

Cc: DelawareSpills /SM; Tacoma Morrissey; Ben Belill; Ashley Ager; Bratcher, Michael, EMNRD; Nobui, Jennifer,

EMNRD; Harimon, Jocelyn, EMNRD

Subject: Extension Approval - XTO - JRU DI 11 Ekalaka 823H - Incident Number NAPP2224527297

Date: Friday, November 18, 2022 3:43:57 PM

Attachments: <u>image003.png</u>

[**EXTERNAL EMAIL**]

RE: Incident #NAPP2224527297

Melanie,

Your request for an extension to **February 16th, 2023** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced

Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave.| Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/



From: Collins, Melanie <melanie.collins@exxonmobil.com>

Sent: Friday, November 18, 2022 9:25 AM

To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>

Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Tacoma Morrissey

<tmorrissey@ensolum.com>; bbelill@ensolum.com; Ashley Ager <aager@ensolum.com>

Subject: [EXTERNAL] XTO - Extension Request - JRU DI 11 Ekalaka 823H - Incident Number

NAPP2224527297

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

JRU DI 11 Ekalaka 823H (Incident Number NAPP2224527297)

XTO is requesting an extension for the current deadline of November 18, 2022, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC at the JRU DI 11

Ekalaka 823H (Incident Number NAPP2224527297). The release occurred on August 20, 2022, and initial site assessment activities have been completed. Delineation activities were performed on November 2, 2022 and November 3, 2022. However, due to XTO onsite operations, further remediation activities were postponed. Additional delineation and excavation is needed to complete remediation at the Site. In order to review the laboratory analytical results, discuss remedial options, and submit a remediation work plan or closure report, XTO requests an extension until February 16, 2023.

Thank you,

Melanie Collins

ENERGY

Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

From: <u>Green, Garrett J</u>
To: <u>Tacoma Morrissey</u>

Subject: FW: XTO - Sampling Notification (Week of 10/31/22 - 11/4/22)

Date: Friday, October 28, 2022 2:16:44 PM

[**EXTERNAL EMAIL**]

From: Green, Garrett J

Sent: Friday, October 28, 2022 1:11 PM

To: ocd.enviro@emnrd.nm.gov; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Billings, Bradford, EMNRD <Bradford.Billings@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>

Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>

Subject: XTO - Sampling Notification (Week of 10/31/22 - 11/4/22)

All,

XTO plans to complete final sampling activities at the following sites the week of Oct 31, 2022.

Monday

Poker Lake Unit 409/ nAPP2223751933

Tuesday

- Poker Lake Unit 409/ nAPP2223751933
- JRU DI 11 Ekalaka 823H/ nAPP2224527297

Wednesday

- Poker Lake Unit 409/ nAPP2223751933
- JRU DI 11 Ekalaka 823H/ nAPP2224527297

Thursday

- Poker Lake Unit 409/ nAPP2223751933
- PLU 30 Big Sinks/ nAPP2209137379, nAPP2208351954, nAPP2206853301

Friday

- Poker Lake Unit 409/ nAPP2223751933

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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 186797

CONDITIONS

Operator: (OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	186797
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. Due to high karst, the release needs to meet the strictest closure criteria standards. The release will need to be further horizontally delineated to the West and South. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. 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. Due to the sensitive nature of the site (high karst), the variance request for 500 ft2 confirmation samples is denied. Collect confirmation samples, representing no more than 200 ft2. A closure report will need to be completed and uploaded within 90 days.	6/16/2023