Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2235642838
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: _____ Date: __03/9/2023_____

email: __garrett.green@exxonmobil.com_____ Telephone: ___575-200-0729_____

OCD Only

Received by: Jocelyn Harimon Date: 03/09/2023

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

Closure Approved by: Robert Hamlet Date: 7/18/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAPP2235642838
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.10485 Longitude -103.80246
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 29 Big Sinks CTB	Site Type Central Tank Battery
Date Release Discovered 12/15/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
F	29	25S	31E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 0.25	Volume Recovered (bbls) 0.00
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: LACT faulted due to closed valves, causing fluid from VRT to go to flare and ignite. Flames self-extinguished upon reaching the ground. No injuries were reported. A third-party contractor has been retained for remediation purposes.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2235642838
District RP	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? A release that results in a fire or is the result of a fire.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Yes, by Garrett Green to ocd.enviro@emnrd.nm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD; Billings, Bradford, EMNRD on 12/16/2022 via email.

Initial Response

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

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

NA

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

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

Printed Name: Garrett Green Title: SSHE Coordinator

Signature:  Date: 12/21/2022

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon Date: 12/22/2022

Location:	PLU 29 Big Sinks CTB	
Spill Date:	12/15/2022	
Area 1		
Approximate Area =	2289.00	sq. ft.
Average Saturation (or depth) of spill =	0.25	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.25	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.25**	**bbls**
Total Produced Water =	**0.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**0.00**	**bbls**

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 169600
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	12/22/2022

Incident ID	NAPP2235642838
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2235642838
District RP	
Facility ID	
Application ID	

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

Printed Name: Garrett Green Title: Environmental Coordinator

Signature: Date: 03/9/2023

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon Date: 03/09/2023

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2235642838
District RP	
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Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: _____ Date: __03/9/2023_____

email: __garrett.green@exxonmobil.com_____ Telephone: ___575-200-0729_____

OCD Only

Received by: Jocelyn Harimon Date: 03/09/2023

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ENSOLUM

March 9, 2023

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

Re: Closure Request
PLU 29 Big Sinks CTB
Incident Number NAPP2235642838
Eddy County, New Mexico

To Whom it May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document assessment and soil sampling activities performed at the PLU 29 Big Sinks Central Tank Battery (CTB; Site). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a small crude oil flare fire at the Site. Based on Site assessment activities and soil sample laboratory analytical results, XTO is submitting this *Closure Request*, describing remediation activities that have occurred and requesting no further action for Incident Number NAPP2235642838.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit F, Section 29, Township 25 South, Range 31 East, in Eddy County, New Mexico (32.10485°, -103.80246°) and is associated with oil and gas exploration and production operations on Federal Land managed by Bureau of Land Management (BLM).

On December 15, 2022, a Lease Automatic Custody Transfer (LACT) unit failed, causing approximately 0.25 barrels (bbls) of crude oil to exit the flare and ignite. The fire extinguished by itself, and no recoverable fluids remained. XTO reported the release via email to the New Mexico Oil Conservation Division (NMOCD) on December 16, 2022 and submitted a Release Notification Form C-141 (Form C-141) on December 21, 2022. The release was assigned Incident Number NAPP2235642838.

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.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on a recent soil boring permitted through the New Mexico Office of the State Engineer (NMOSE) and drilled for determination of regional groundwater depth. On June 22, 2022, a soil boring (C-4624) was drilled approximately 0.95 miles southwest of the Site and was advanced to a depth of 120 feet bgs. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activites. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that

groundwater beneath the Site is greater than 120 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. All wells used for depth to groundwater determination are present on Figure 1. The Well Record and Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a seasonal dry wash, located approximately 4,319 feet south 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 not underlain by unstable geology (medium potential karst designation area). All Site receptors are identified on Figure 1.

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
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On January 27, 2023, Site assessment and delineation activities were conducted by Ensolum to evaluate the release extent based on information provided on the Form C-141 and visual observations. Two potholes (PH01 and PH02) were advanced by use of heavy equipment within the release extent to assess the vertical extent of the release. Two discrete delineation soil samples were collected from each pothole at depths of 0.5 feet bgs and 1-foot bgs. Four discrete delineation soil samples (SS01 through SS04) were collected from a depth of 0.5 feet bgs to assess the lateral extent of the release. The delineation 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 delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Field screening results on all delineation soil samples collected indicated no impacts to soil; however, surficial staining from the fire was scraped and removed from the Site by use of heavy equipment and hand tools. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix B. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix C.

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 constituents of concern (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Soil samples delivered to the laboratory the same day they were collected may not have equilabrated to 6 degrees Celcius required for shipment and long term storage, but are considered to have been received in acceptable condition by the laboratory.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results indicated COC concentrations for all delineation soil samples were in compliance with the Site Closure Criteria and the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

Site assessment and delineation activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the December 15, 2022 release of crude oil and flare fire. Laboratory analytical results for all delineation soil samples indicated COC concentrations were compliant with the Site Closure Criteria and the most stringent Table I Closure Criteria. Following delineation activities, surface scraping was completed to remove surficial staining caused by the fire.

Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. Based on laboratory analytical results compliant with Closure Criteria, no further remediation was required. As such, XTO respectfully requests closure for Incident Number NAPP2235642838.

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

Sincerely,
Ensolum, LLC

Meredith Roberts
Field Geologist

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

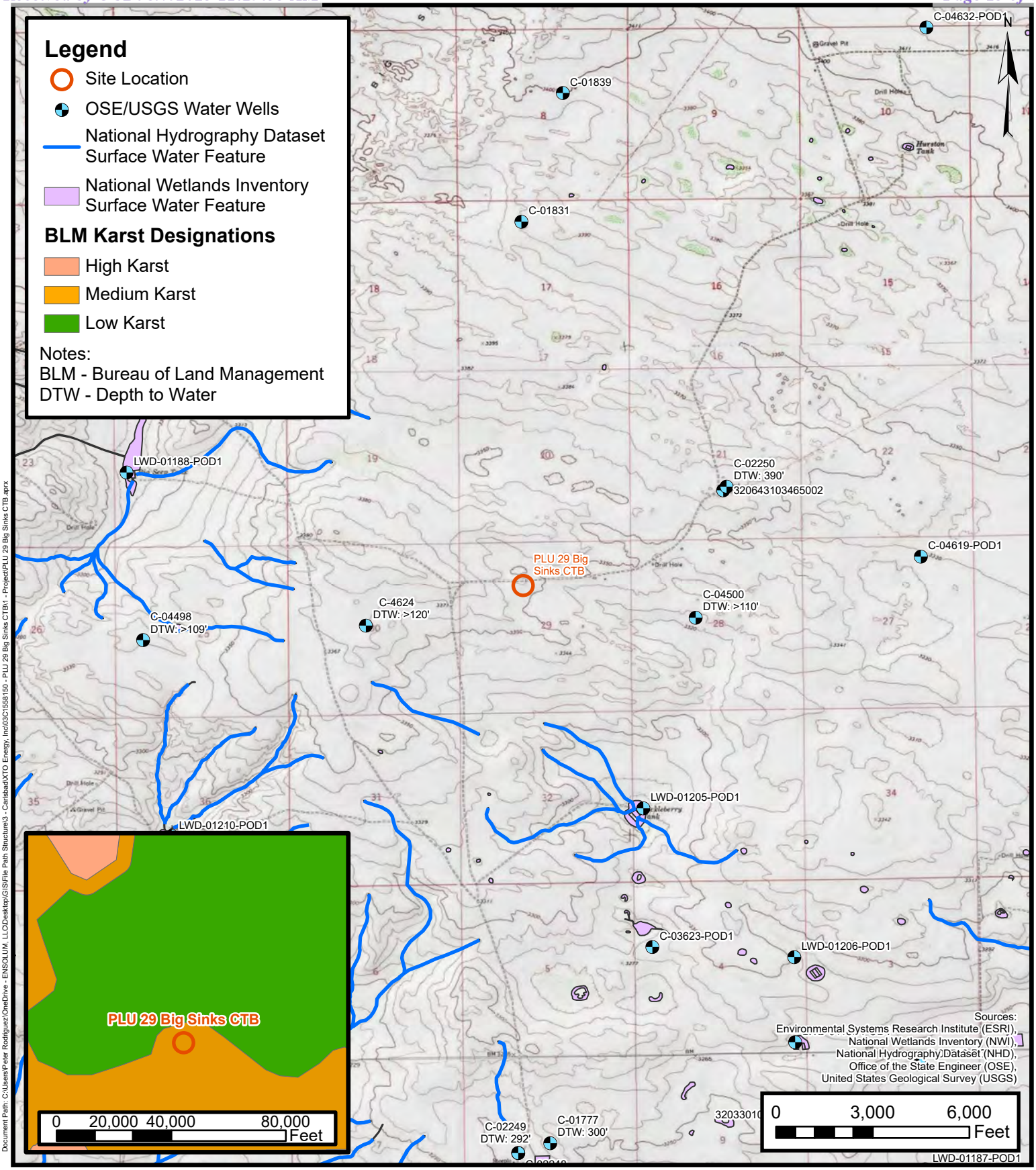
cc: Garrett Green, XTO
Shelby Pennington, XTO
BLM

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Lithologic Soil Sampling Logs
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Notifications

ENSOLUM

FIGURES

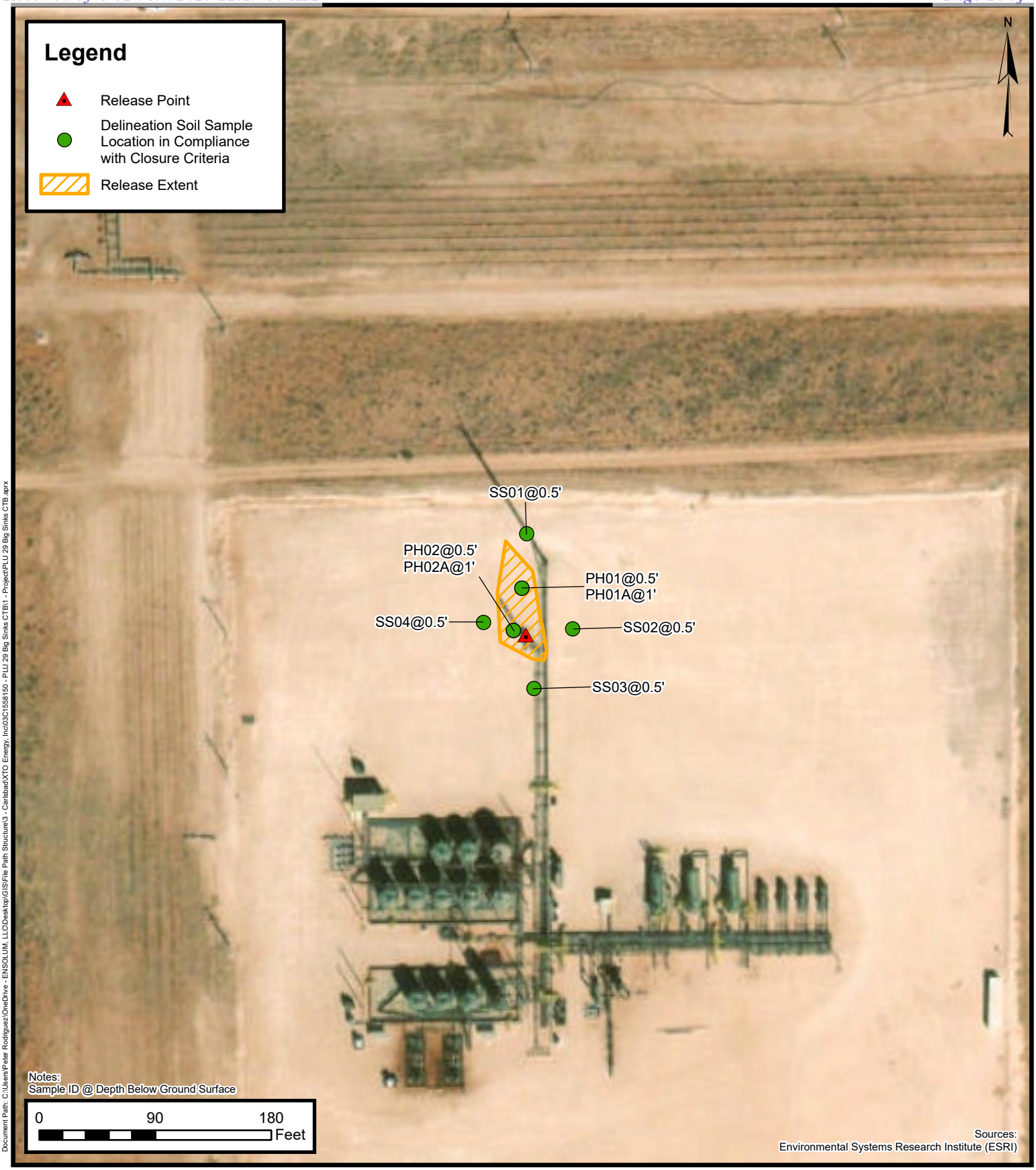


ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

XTO Energy, Inc
PLU 29 Big Sinks CTB
Incident Number: NAPP2235642838
Unit F, Sec 29, T25S, R31E,
Eddy County, New Mexico

FIGURE
1



Document Path: C:\Users\Peter Rodriguez\OneDrive - ENSOLUM, LLC\Desktop\GIS\File Path Structure\3 - Carlsbad\XTO Energy, Inc\03C1558150 - PLU 29 Big Sinks CTB\1 - Project\PLU 29 Big Sinks CTB.aprx

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

XTO Energy, Inc
PLU 29 Big Sinks CTB
Incident Number: NAPP2235642838
Unit F, Sec 29, T25S, R31E,
Eddy County, New Mexico

FIGURE
2

ENSOLUM

TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 29 Big Sinks CTB
XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Delineation Soil Samples										
SS01	01/27/2023	0.5	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	119
SS02	01/27/2023	0.5	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	49.9
SS03	01/27/2023	0.5	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	25.0
SS04	01/27/2023	0.5	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	45.1
PH01	01/27/2023	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	95.2
PH01A	01/27/2023	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	92.2
PH02	01/27/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	206
PH02A	01/27/2023	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	239

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

NMAC: New Mexico Administrative Code

ENSOLUM

APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
C-4624 POD 1		C-4624

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO ENERGY INC	432-236-3808

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 HOLIDAY HILL ROAD	MIDLAND	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	6	5.66	N
	LONGITUDE	-103	49	5.79	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

ON POKER LAKE UNIT 30 BS # 103H PAD

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1184	RUSSELL SOUTHERLAND	WEST TEXAS WATER WELL SERVICE

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
06/22/22	06/22/22	120		

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
			NO CASING IN HOLE				

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
			N/A		

OSE DIT JUL 25 2022 PM 1:54

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. C-4624-POD1	POD NO. POD1	TRN NO. 726169	
LOCATION 25S.31E.30.4.4.1		WELL TAG ID NO. —	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	17		CALACHIE	Y ✓ N	
17	30		SAND	Y ✓ N	
30	40		SAND, SMALL GRAVEL	Y ✓ N	
40	95		SAND	Y ✓ N	
95	120		SANDSTONE, SAND	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☑ OTHER – SPECIFY: DRY HOLE

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: THE BORING WILL BE SECURED AND LEFT OPEN FOR 72 HOURS AT WHICH TIME, XTO WILL ASSESS FOR THE PRESENCE OR ABSENCE OF GROUNDWATER. XTO WILL BACKFILL THE BORING FOLLOWING NMOSE ABANDONMENT PROCEDUCES FOR SOIL BORING.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

RUSSELL SOUTHERLAND

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

Russell Southerland — RUSSELL SOUTHERLAND (Russell Southerland) — 06/22/2022

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Sample Name: PH01	Date: 1/27/2023
Site Name: PLU 29 BS CTB	
Incident Number: NAPP2235642838	
Job Number: 03C1558150	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: KP	Method: Backhoe	
Coordinates: 32.1048, -103.8024	Hole Diameter: NA	Total Depth: 1'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included on all chloride screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	CCHE	0-1' CALICHE, light brown/ tan silty/caliche mix. Poorly sorted, sub-rounded grains, staining in first couple inches, dry, no odor, fill.
D	<173	0.0	N	PH01	0.5	0.5		
D	<173	0.0	N	PH01A	1	1		
							TD	Total Depth @ 1' bgs

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

	Sample Name: PH02	Date: 1/27/2023
	Site Name: PLU 29 BS CTB	
	Incident Number: NAPP2235642838	
	Job Number: 03C1558150	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: KP	Method: Backhoe
Coordinates: 32.1048, -103.8024	Hole Diameter: NA	Total Depth: 1'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included on all chloride screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	CCHE	0-1' CALICHE, light brown/ tan silty/caliche mix. Poorly sorted, sub-rounded grains, staining in first couple inches only, dry, no odor, fill.
D	<173	0.0	N	PH02	0.5	0.5		
D	<173	0.0	N	PH02A	1	1		
							TD	Total Depth @ 1' bgs

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
PLU 29 Big Sinks CTB
NAPP2235642838

Photograph 1 Date: 01/27/2023
Description: Release extent area
View: Northwest

Photograph 2 Date: 01/27/2023
Description: Delineation activities, PH02.
View: Northwest

Photograph 3 Date: 01/27/2023
Description: Surface scraping activities
View: North

Photograph 4 Date: 01/27/2023
Description: Surface scraping activities
View: South

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/9/2023 7:38:05 PM

JOB DESCRIPTION

PLU 29 BS CTB
SDG NUMBER 03C1558150

JOB NUMBER

890-3976-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

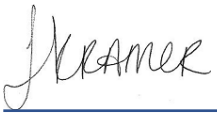
my EOL

Eurofins Carlsbad

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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

Client: Ensolum
Project/Site: PLU 29 BS CTB

Laboratory Job ID: 890-3976-1
SDG: 03C1558150

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Job ID: 890-3976-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3976-1

Receipt
The samples were received on 1/27/2023 2:06 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-3976-1), SS02 (890-3976-2), SS03 (890-3976-3) and SS04 (890-3976-4).

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 surrogate recovery for the blank associated with preparation batch 880-45704 and analytical batch 880-45735 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3975-A-1-D MS) and (890-3975-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45704 and analytical batch 880-45735 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Client Sample ID: SS01

Lab Sample ID: 890-3976-1
Matrix: Solid
Date Collected: 01/27/23 10:30
Date Received: 01/27/23 14:06
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/09/23 08:10	02/09/23 15:41	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/09/23 08:10	02/09/23 15:41	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/09/23 08:10	02/09/23 15:41	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/09/23 08:10	02/09/23 15:41	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/09/23 08:10	02/09/23 15:41	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/09/23 08:10	02/09/23 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*02/09/23 08:10*	*02/09/23 15:41*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/09/23 08:10*	*02/09/23 15:41*	*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			02/09/23 16:07	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/09/23 09:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/07/23 13:19	02/08/23 23:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/07/23 13:19	02/08/23 23:56	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/07/23 13:19	02/08/23 23:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*02/07/23 13:19*	*02/08/23 23:56*	*1*
o-Terphenyl	*111*		*70 - 130*	*02/07/23 13:19*	*02/08/23 23:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**119**		4.96		mg/Kg			02/05/23 13:58	1

Client Sample ID: SS02

Lab Sample ID: 890-3976-2
Matrix: Solid
Date Collected: 01/27/23 10:35
Date Received: 01/27/23 14:06
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 16:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 16:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 16:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/09/23 08:10	02/09/23 16:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 16:55	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/09/23 08:10	02/09/23 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*02/09/23 08:10*	*02/09/23 16:55*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Client Sample ID: SS02

Date Collected: 01/27/23 10:35
Date Received: 01/27/23 14:06
Sample Depth: 0.5'

Lab Sample ID: 890-3976-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/09/23 08:10*	*02/09/23 16:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/09/23 20:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/09/23 09:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/07/23 13:19	02/09/23 00:17	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		02/07/23 13:19	02/09/23 00:17	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/07/23 13:19	02/09/23 00:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*02/07/23 13:19*	*02/09/23 00:17*	*1*
o-Terphenyl	*104*		*70 - 130*	*02/07/23 13:19*	*02/09/23 00:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**49.9**		4.96	mg/Kg			02/05/23 14:03	1

Client Sample ID: SS03

Date Collected: 01/27/23 10:40
Date Received: 01/27/23 14:06
Sample Depth: 0.5'

Lab Sample ID: 890-3976-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/09/23 08:10	02/09/23 17:15	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/23 08:10	02/09/23 17:15	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/23 08:10	02/09/23 17:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/23 08:10	02/09/23 17:15	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/23 08:10	02/09/23 17:15	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/23 08:10	02/09/23 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*02/09/23 08:10*	*02/09/23 17:15*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*02/09/23 08:10*	*02/09/23 17:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/09/23 20:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			02/09/23 09:48	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Client Sample ID: SS03

Lab Sample ID: 890-3976-3
Matrix: Solid
Date Collected: 01/27/23 10:40
Date Received: 01/27/23 14:06
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/07/23 13:19	02/09/23 00:38	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/07/23 13:19	02/09/23 00:38	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/07/23 13:19	02/09/23 00:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/07/23 13:19*	*02/09/23 00:38*	*1*
o-Terphenyl	*105*		*70 - 130*	*02/07/23 13:19*	*02/09/23 00:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.0**		4.97		mg/Kg			02/05/23 14:17	1

Client Sample ID: SS04

Lab Sample ID: 890-3976-4
Matrix: Solid
Date Collected: 01/27/23 10:45
Date Received: 01/27/23 14:06
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/09/23 08:10	02/09/23 17:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/09/23 08:10	02/09/23 17:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/09/23 08:10	02/09/23 17:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/09/23 08:10	02/09/23 17:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/09/23 08:10	02/09/23 17:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/09/23 08:10	02/09/23 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/09/23 08:10*	*02/09/23 17:36*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/09/23 08:10*	*02/09/23 17:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/09/23 20:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/09/23 09:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/07/23 13:19	02/09/23 01:00	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/07/23 13:19	02/09/23 01:00	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/07/23 13:19	02/09/23 01:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*02/07/23 13:19*	*02/09/23 01:00*	*1*
o-Terphenyl	*104*		*70 - 130*	*02/07/23 13:19*	*02/09/23 01:00*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Client Sample ID: SS04

Date Collected: 01/27/23 10:45
Date Received: 01/27/23 14:06
Sample Depth: 0.5'

Lab Sample ID: 890-3976-4

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.1		5.03		mg/Kg			02/05/23 14:22	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

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)
880-24448-A-1-G MS	Matrix Spike	99	97
880-24448-A-1-H MSD	Matrix Spike Duplicate	90	98
890-3976-1	SS01	107	106
890-3976-2	SS02	121	101
890-3976-3	SS03	101	113
890-3976-4	SS04	111	104
LCS 880-45842/1-A	Lab Control Sample	100	98
LCSD 880-45842/2-A	Lab Control Sample Dup	105	100
MB 880-45842/5-A	Method Blank	89	92

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)
890-3975-A-1-D MS	Matrix Spike	191 S1+	194 S1+
890-3975-A-1-E MSD	Matrix Spike Duplicate	207 S1+	204 S1+
890-3976-1	SS01	97	111
890-3976-2	SS02	94	104
890-3976-3	SS03	95	105
890-3976-4	SS04	97	104
LCS 880-45704/2-A	Lab Control Sample	104	114
LCSD 880-45704/3-A	Lab Control Sample Dup	100	110
MB 880-45704/1-A	Method Blank	116	132 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45842/5-A
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45842

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 10:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 10:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 10:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/09/23 08:10	02/09/23 10:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 10:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/09/23 08:10	02/09/23 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/09/23 08:10*	*02/09/23 10:46*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/09/23 08:10*	*02/09/23 10:46*	*1*

Lab Sample ID: LCS 880-45842/1-A
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45842

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08599		mg/Kg		86	70 - 130		
Toluene			0.100	0.08525		mg/Kg		85	70 - 130		
Ethylbenzene			0.100	0.08087		mg/Kg		81	70 - 130		
m-Xylene & p-Xylene			0.200	0.1695		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.08679		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-45842/2-A
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45842

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09372		mg/Kg		94	70 - 130	9	35
Toluene			0.100	0.09160		mg/Kg		92	70 - 130	7	35
Ethylbenzene			0.100	0.08712		mg/Kg		87	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1818		mg/Kg		91	70 - 130	7	35
o-Xylene			0.100	0.09322		mg/Kg		93	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 880-24448-A-1-G MS
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45842

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0998	0.08223		mg/Kg		82	70 - 130		
Toluene	<0.00199	U	0.0998	0.08183		mg/Kg		82	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

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

Lab Sample ID: 880-24448-A-1-G MS
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45842

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.07809		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1613		mg/Kg		81	70 - 130
o-Xylene	<0.00199	U	0.0998	0.08235		mg/Kg		83	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-24448-A-1-H MSD
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45842

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09844		mg/Kg		98	70 - 130	18	35
Toluene	<0.00199	U	0.100	0.09344		mg/Kg		93	70 - 130	13	35
Ethylbenzene	<0.00199	U	0.100	0.08327		mg/Kg		83	70 - 130	6	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1674		mg/Kg		84	70 - 130	4	35
o-Xylene	<0.00199	U	0.100	0.08564		mg/Kg		85	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-45704/1-A
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45704

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/07/23 13:19	02/08/23 20:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/07/23 13:19	02/08/23 20:37	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/07/23 13:19	02/08/23 20:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*02/07/23 13:19*	*02/08/23 20:37*	*1*
o-Terphenyl	*132*	*S1+*	*70 - 130*	*02/07/23 13:19*	*02/08/23 20:37*	*1*

Lab Sample ID: LCS 880-45704/2-A
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45704

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	860.6		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)			1000	909.7		mg/Kg		91	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

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

Lab Sample ID: LCS 880-45704/2-A
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45704

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	114		70 - 130

Lab Sample ID: LCSD 880-45704/3-A
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45704

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	917.2		mg/Kg		92	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	932.0		mg/Kg		93	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 890-3975-A-1-D MS
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45704

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	995	1634	F1	mg/Kg		164	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U F1	995	1867	F1	mg/Kg		188	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	191	S1+	70 - 130
o-Terphenyl	194	S1+	70 - 130

Lab Sample ID: 890-3975-A-1-E MSD
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45704

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	999	1813	F1	mg/Kg		181	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<49.8	U F1	999	1990	F1	mg/Kg		199	70 - 130	6	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	207	S1+	70 - 130
o-Terphenyl	204	S1+	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45095/1-A
Matrix: Solid
Analysis Batch: 45420

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/03/23 21:32	1

Lab Sample ID: LCS 880-45095/2-A
Matrix: Solid
Analysis Batch: 45420

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	258.9		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-45095/3-A
Matrix: Solid
Analysis Batch: 45420

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	248.1		mg/Kg		99	90 - 110	4	20

Lab Sample ID: 890-3976-2 MS
Matrix: Solid
Analysis Batch: 45420

Client Sample ID: SS02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	49.9		248	302.6		mg/Kg		102	90 - 110		

QC Association Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

GC VOA

Analysis Batch: 45840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3976-1	SS01	Total/NA	Solid	8021B	45842
890-3976-2	SS02	Total/NA	Solid	8021B	45842
890-3976-3	SS03	Total/NA	Solid	8021B	45842
890-3976-4	SS04	Total/NA	Solid	8021B	45842
MB 880-45842/5-A	Method Blank	Total/NA	Solid	8021B	45842
LCS 880-45842/1-A	Lab Control Sample	Total/NA	Solid	8021B	45842
LCSD 880-45842/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45842
880-24448-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	45842
880-24448-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45842

Prep Batch: 45842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3976-1	SS01	Total/NA	Solid	5035	
890-3976-2	SS02	Total/NA	Solid	5035	
890-3976-3	SS03	Total/NA	Solid	5035	
890-3976-4	SS04	Total/NA	Solid	5035	
MB 880-45842/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45842/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45842/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24448-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-24448-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3976-1	SS01	Total/NA	Solid	Total BTEX	
890-3976-2	SS02	Total/NA	Solid	Total BTEX	
890-3976-3	SS03	Total/NA	Solid	Total BTEX	
890-3976-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3976-1	SS01	Total/NA	Solid	8015NM Prep	
890-3976-2	SS02	Total/NA	Solid	8015NM Prep	
890-3976-3	SS03	Total/NA	Solid	8015NM Prep	
890-3976-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-45704/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45704/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45704/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3975-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3975-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3976-1	SS01	Total/NA	Solid	8015B NM	45704
890-3976-2	SS02	Total/NA	Solid	8015B NM	45704
890-3976-3	SS03	Total/NA	Solid	8015B NM	45704
890-3976-4	SS04	Total/NA	Solid	8015B NM	45704
MB 880-45704/1-A	Method Blank	Total/NA	Solid	8015B NM	45704
LCS 880-45704/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45704

QC Association Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

GC Semi VOA (Continued)

Analysis Batch: 45735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-45704/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45704
890-3975-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45704
890-3975-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45704

Analysis Batch: 45873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3976-1	SS01	Total/NA	Solid	8015 NM	
890-3976-2	SS02	Total/NA	Solid	8015 NM	
890-3976-3	SS03	Total/NA	Solid	8015 NM	
890-3976-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3976-1	SS01	Soluble	Solid	DI Leach	
890-3976-2	SS02	Soluble	Solid	DI Leach	
890-3976-3	SS03	Soluble	Solid	DI Leach	
890-3976-4	SS04	Soluble	Solid	DI Leach	
MB 880-45095/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45095/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45095/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3976-2 MS	SS02	Soluble	Solid	DI Leach	
890-3976-2 MSD	SS02	Soluble	Solid	DI Leach	

Analysis Batch: 45420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3976-1	SS01	Soluble	Solid	300.0	45095
890-3976-2	SS02	Soluble	Solid	300.0	45095
890-3976-3	SS03	Soluble	Solid	300.0	45095
890-3976-4	SS04	Soluble	Solid	300.0	45095
MB 880-45095/1-A	Method Blank	Soluble	Solid	300.0	45095
LCS 880-45095/2-A	Lab Control Sample	Soluble	Solid	300.0	45095
LCSD 880-45095/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45095
890-3976-2 MS	SS02	Soluble	Solid	300.0	45095
890-3976-2 MSD	SS02	Soluble	Solid	300.0	45095

Lab Chronicle

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Client Sample ID: SS01

Lab Sample ID: 890-3976-1

Date Collected: 01/27/23 10:30

Matrix: Solid

Date Received: 01/27/23 14:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	45842	02/09/23 08:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45840	02/09/23 15:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45918	02/09/23 16:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			45873	02/09/23 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	45704	02/07/23 13:19	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45735	02/08/23 23:56	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	45095	01/30/23 16:15	KS	EET MID
Soluble	Analysis	300.0		1			45420	02/05/23 13:58	CH	EET MID

Client Sample ID: SS02

Lab Sample ID: 890-3976-2

Date Collected: 01/27/23 10:35

Matrix: Solid

Date Received: 01/27/23 14:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	45842	02/09/23 08:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45840	02/09/23 16:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45918	02/09/23 20:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			45873	02/09/23 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	45704	02/07/23 13:19	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45735	02/09/23 00:17	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	45095	01/30/23 16:15	KS	EET MID
Soluble	Analysis	300.0		1			45420	02/05/23 14:03	CH	EET MID

Client Sample ID: SS03

Lab Sample ID: 890-3976-3

Date Collected: 01/27/23 10:40

Matrix: Solid

Date Received: 01/27/23 14:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	45842	02/09/23 08:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45840	02/09/23 17:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45918	02/09/23 20:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			45873	02/09/23 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	45704	02/07/23 13:19	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45735	02/09/23 00:38	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	45095	01/30/23 16:15	KS	EET MID
Soluble	Analysis	300.0		1			45420	02/05/23 14:17	CH	EET MID

Client Sample ID: SS04

Lab Sample ID: 890-3976-4

Date Collected: 01/27/23 10:45

Matrix: Solid

Date Received: 01/27/23 14:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	45842	02/09/23 08:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45840	02/09/23 17:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45918	02/09/23 20:25	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Client Sample ID: SS04

Date Collected: 01/27/23 10:45
Date Received: 01/27/23 14:06

Lab Sample ID: 890-3976-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45873	02/09/23 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	45704	02/07/23 13:19	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45735	02/09/23 01:00	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	45095	01/30/23 16:15	KS	EET MID
Soluble	Analysis	300.0		1			45420	02/05/23 14:22	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3976-1
SDG: 03C1558150

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3976-1	SS01	Solid	01/27/23 10:30	01/27/23 14:06	0.5'
890-3976-2	SS02	Solid	01/27/23 10:35	01/27/23 14:06	0.5'
890-3976-3	SS03	Solid	01/27/23 10:40	01/27/23 14:06	0.5'
890-3976-4	SS04	Solid	01/27/23 10:45	01/27/23 14:06	0.5'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Ben Belill	Bill to: (if different)	Garret Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989-854-0852	Email:	Garret.Green@ExxonMobil.com bbelill@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU 29 BS CTB	Turn Around	
Project Number:	03C1558150	☑ Routine ☐ Rush	
Project Location:	32.10485, -103.80246	Due Date:	
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	THM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.4
Total Containers:		Corrected Temperature:	1.2

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS01	S	1/27/2023	10:30	0.5'	Grab/	1		x	x	x
SS02	S	1/27/2023	10:35	0.5'	Grab/	1		x	x	x
SS03	S	1/27/2023	10:40	0.5'	Grab/	1		x	x	x
SS04	S	1/27/2023	10:45	0.5'	Grab/	1		x	x	x

890-3976 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Incident ID:
NAPP2235642838
Cost Center:
1851151001
AFE:

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stutz	1-27-23 1406			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3976-1
SDG Number: 03C1558150

Login Number: 3976
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3976-1
SDG Number: 03C1558150

Login Number: 3976
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/03/23 01:00 PM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/9/2023 7:38:05 PM

JOB DESCRIPTION

PLU 29 BS CTB
SDG NUMBER 03C1558150

JOB NUMBER

890-3977-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

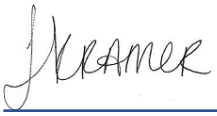
my EOL

Eurofins Carlsbad

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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2/9/2023 7:38:05 PM

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

Client: Ensolum
Project/Site: PLU 29 BS CTB

Laboratory Job ID: 890-3977-1
SDG: 03C1558150

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Job ID: 890-3977-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3977-1

Receipt
The samples were received on 1/27/2023 2:06 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH01 (890-3977-1), PH01A (890-3977-2), PH02 (890-3977-3) and PH02A (890-3977-4).

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 surrogate recovery for the blank associated with preparation batch 880-45704 and analytical batch 880-45735 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3975-A-1-D MS) and (890-3975-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45704 and analytical batch 880-45735 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Client Sample ID: PH01

Date Collected: 01/27/23 09:45
Date Received: 01/27/23 14:06
Sample Depth: 0.5'

Lab Sample ID: 890-3977-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 17:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 17:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 17:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/09/23 08:10	02/09/23 17:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 17:57	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/09/23 08:10	02/09/23 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*02/09/23 08:10*	*02/09/23 17:57*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*02/09/23 08:10*	*02/09/23 17:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/09/23 20:25	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			02/09/23 09:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/07/23 13:19	02/09/23 01:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/07/23 13:19	02/09/23 01:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/07/23 13:19	02/09/23 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/07/23 13:19*	*02/09/23 01:22*	*1*
o-Terphenyl	*102*		*70 - 130*	*02/07/23 13:19*	*02/09/23 01:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**95.2**		5.00		mg/Kg			02/03/23 23:23	1

Client Sample ID: PH01A

Date Collected: 01/27/23 09:50
Date Received: 01/27/23 14:06
Sample Depth: 1'

Lab Sample ID: 890-3977-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/09/23 08:10	02/09/23 18:18	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/09/23 08:10	02/09/23 18:18	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/09/23 08:10	02/09/23 18:18	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/09/23 08:10	02/09/23 18:18	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/09/23 08:10	02/09/23 18:18	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/09/23 08:10	02/09/23 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*02/09/23 08:10*	*02/09/23 18:18*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Client Sample ID: PH01A

Date Collected: 01/27/23 09:50
Date Received: 01/27/23 14:06
Sample Depth: 1'

Lab Sample ID: 890-3977-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/09/23 08:10*	*02/09/23 18:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/09/23 20:25	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			02/09/23 09:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/07/23 13:19	02/09/23 01:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/07/23 13:19	02/09/23 01:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/07/23 13:19	02/09/23 01:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*02/07/23 13:19*	*02/09/23 01:43*	*1*
o-Terphenyl	*122*		*70 - 130*	*02/07/23 13:19*	*02/09/23 01:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**92.2**		4.98	mg/Kg			02/03/23 23:28	1

Client Sample ID: PH02

Date Collected: 01/27/23 09:55
Date Received: 01/27/23 14:06
Sample Depth: 0.5'

Lab Sample ID: 890-3977-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/09/23 08:10	02/09/23 18:38	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/23 08:10	02/09/23 18:38	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/23 08:10	02/09/23 18:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/23 08:10	02/09/23 18:38	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/23 08:10	02/09/23 18:38	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/23 08:10	02/09/23 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*02/09/23 08:10*	*02/09/23 18:38*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/09/23 08:10*	*02/09/23 18:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/09/23 20:25	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			02/09/23 09:48	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Client Sample ID: PH02

Date Collected: 01/27/23 09:55
Date Received: 01/27/23 14:06
Sample Depth: 0.5'

Lab Sample ID: 890-3977-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/07/23 13:19	02/09/23 02:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/07/23 13:19	02/09/23 02:25	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/07/23 13:19	02/09/23 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/07/23 13:19*	*02/09/23 02:25*	*1*
o-Terphenyl	*104*		*70 - 130*	*02/07/23 13:19*	*02/09/23 02:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**206**		4.97		mg/Kg			02/05/23 14:26	1

Client Sample ID: PH02A

Date Collected: 01/27/23 10:00
Date Received: 01/27/23 14:06
Sample Depth: 1'

Lab Sample ID: 890-3977-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/09/23 08:10	02/09/23 18:59	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/09/23 08:10	02/09/23 18:59	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/09/23 08:10	02/09/23 18:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/09/23 08:10	02/09/23 18:59	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/09/23 08:10	02/09/23 18:59	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/09/23 08:10	02/09/23 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*02/09/23 08:10*	*02/09/23 18:59*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*02/09/23 08:10*	*02/09/23 18:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/09/23 20:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/09/23 09:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/07/23 13:19	02/09/23 02:47	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/07/23 13:19	02/09/23 02:47	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/07/23 13:19	02/09/23 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*02/07/23 13:19*	*02/09/23 02:47*	*1*
o-Terphenyl	*102*		*70 - 130*	*02/07/23 13:19*	*02/09/23 02:47*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Client Sample ID: PH02A
Date Collected: 01/27/23 10:00
Date Received: 01/27/23 14:06
Sample Depth: 1'

Lab Sample ID: 890-3977-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	239		5.02		mg/Kg			02/05/23 14:31	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

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)
880-24448-A-1-G MS	Matrix Spike	99	97
880-24448-A-1-H MSD	Matrix Spike Duplicate	90	98
890-3977-1	PH01	116	100
890-3977-2	PH01A	115	108
890-3977-3	PH02	114	101
890-3977-4	PH02A	118	110
LCS 880-45842/1-A	Lab Control Sample	100	98
LCSD 880-45842/2-A	Lab Control Sample Dup	105	100
MB 880-45842/5-A	Method Blank	89	92

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)
890-3975-A-1-D MS	Matrix Spike	191 S1+	194 S1+
890-3975-A-1-E MSD	Matrix Spike Duplicate	207 S1+	204 S1+
890-3977-1	PH01	95	102
890-3977-2	PH01A	111	122
890-3977-3	PH02	95	104
890-3977-4	PH02A	94	102
LCS 880-45704/2-A	Lab Control Sample	104	114
LCSD 880-45704/3-A	Lab Control Sample Dup	100	110
MB 880-45704/1-A	Method Blank	116	132 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45842/5-A
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45842

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 10:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 10:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 10:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/09/23 08:10	02/09/23 10:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/09/23 08:10	02/09/23 10:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/09/23 08:10	02/09/23 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/09/23 08:10*	*02/09/23 10:46*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/09/23 08:10*	*02/09/23 10:46*	*1*

Lab Sample ID: LCS 880-45842/1-A
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45842

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08599		mg/Kg		86	70 - 130		
Toluene			0.100	0.08525		mg/Kg		85	70 - 130		
Ethylbenzene			0.100	0.08087		mg/Kg		81	70 - 130		
m-Xylene & p-Xylene			0.200	0.1695		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.08679		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-45842/2-A
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45842

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09372		mg/Kg		94	70 - 130	9	35
Toluene			0.100	0.09160		mg/Kg		92	70 - 130	7	35
Ethylbenzene			0.100	0.08712		mg/Kg		87	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1818		mg/Kg		91	70 - 130	7	35
o-Xylene			0.100	0.09322		mg/Kg		93	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 880-24448-A-1-G MS
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45842

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0998	0.08223		mg/Kg		82	70 - 130		
Toluene	<0.00199	U	0.0998	0.08183		mg/Kg		82	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

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

Lab Sample ID: 880-24448-A-1-G MS
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45842

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.07809		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1613		mg/Kg		81	70 - 130
o-Xylene	<0.00199	U	0.0998	0.08235		mg/Kg		83	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-24448-A-1-H MSD
Matrix: Solid
Analysis Batch: 45840

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45842

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09844		mg/Kg		98	70 - 130	18	35
Toluene	<0.00199	U	0.100	0.09344		mg/Kg		93	70 - 130	13	35
Ethylbenzene	<0.00199	U	0.100	0.08327		mg/Kg		83	70 - 130	6	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1674		mg/Kg		84	70 - 130	4	35
o-Xylene	<0.00199	U	0.100	0.08564		mg/Kg		85	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-45704/1-A
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45704

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/07/23 13:19	02/08/23 20:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/07/23 13:19	02/08/23 20:37	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/07/23 13:19	02/08/23 20:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*02/07/23 13:19*	*02/08/23 20:37*	*1*
o-Terphenyl	*132*	*S1+*	*70 - 130*	*02/07/23 13:19*	*02/08/23 20:37*	*1*

Lab Sample ID: LCS 880-45704/2-A
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45704

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	860.6		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)			1000	909.7		mg/Kg		91	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

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

Lab Sample ID: LCS 880-45704/2-A
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45704

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	114		70 - 130

Lab Sample ID: LCSD 880-45704/3-A
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45704

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	917.2		mg/Kg		92	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	932.0		mg/Kg		93	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 890-3975-A-1-D MS
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45704

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	995	1634	F1	mg/Kg		164	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U F1	995	1867	F1	mg/Kg		188	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	191	S1+	70 - 130
o-Terphenyl	194	S1+	70 - 130

Lab Sample ID: 890-3975-A-1-E MSD
Matrix: Solid
Analysis Batch: 45735

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45704

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	999	1813	F1	mg/Kg		181	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<49.8	U F1	999	1990	F1	mg/Kg		199	70 - 130	6	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	207	S1+	70 - 130
o-Terphenyl	204	S1+	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45095/1-A
Matrix: Solid
Analysis Batch: 45420

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/03/23 21:32	1

Lab Sample ID: LCS 880-45095/2-A
Matrix: Solid
Analysis Batch: 45420

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	258.9		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-45095/3-A
Matrix: Solid
Analysis Batch: 45420

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	248.1		mg/Kg		99	90 - 110	4	20

Lab Sample ID: 890-3976-A-2-E MS
Matrix: Solid
Analysis Batch: 45420

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	49.9		248	302.6		mg/Kg		102	90 - 110		

QC Association Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

GC VOA

Analysis Batch: 45840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3977-1	PH01	Total/NA	Solid	8021B	45842
890-3977-2	PH01A	Total/NA	Solid	8021B	45842
890-3977-3	PH02	Total/NA	Solid	8021B	45842
890-3977-4	PH02A	Total/NA	Solid	8021B	45842
MB 880-45842/5-A	Method Blank	Total/NA	Solid	8021B	45842
LCS 880-45842/1-A	Lab Control Sample	Total/NA	Solid	8021B	45842
LCSD 880-45842/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45842
880-24448-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	45842
880-24448-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45842

Prep Batch: 45842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3977-1	PH01	Total/NA	Solid	5035	
890-3977-2	PH01A	Total/NA	Solid	5035	
890-3977-3	PH02	Total/NA	Solid	5035	
890-3977-4	PH02A	Total/NA	Solid	5035	
MB 880-45842/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45842/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45842/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24448-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-24448-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3977-1	PH01	Total/NA	Solid	Total BTEX	
890-3977-2	PH01A	Total/NA	Solid	Total BTEX	
890-3977-3	PH02	Total/NA	Solid	Total BTEX	
890-3977-4	PH02A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3977-1	PH01	Total/NA	Solid	8015NM Prep	
890-3977-2	PH01A	Total/NA	Solid	8015NM Prep	
890-3977-3	PH02	Total/NA	Solid	8015NM Prep	
890-3977-4	PH02A	Total/NA	Solid	8015NM Prep	
MB 880-45704/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45704/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45704/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3975-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3975-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3977-1	PH01	Total/NA	Solid	8015B NM	45704
890-3977-2	PH01A	Total/NA	Solid	8015B NM	45704
890-3977-3	PH02	Total/NA	Solid	8015B NM	45704
890-3977-4	PH02A	Total/NA	Solid	8015B NM	45704
MB 880-45704/1-A	Method Blank	Total/NA	Solid	8015B NM	45704
LCS 880-45704/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45704

QC Association Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

GC Semi VOA (Continued)

Analysis Batch: 45735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-45704/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45704
890-3975-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45704
890-3975-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45704

Analysis Batch: 45874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3977-1	PH01	Total/NA	Solid	8015 NM	
890-3977-2	PH01A	Total/NA	Solid	8015 NM	
890-3977-3	PH02	Total/NA	Solid	8015 NM	
890-3977-4	PH02A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3977-1	PH01	Soluble	Solid	DI Leach	
890-3977-2	PH01A	Soluble	Solid	DI Leach	
890-3977-3	PH02	Soluble	Solid	DI Leach	
890-3977-4	PH02A	Soluble	Solid	DI Leach	
MB 880-45095/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45095/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45095/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3976-A-2-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3976-A-2-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3977-1	PH01	Soluble	Solid	300.0	45095
890-3977-2	PH01A	Soluble	Solid	300.0	45095
890-3977-3	PH02	Soluble	Solid	300.0	45095
890-3977-4	PH02A	Soluble	Solid	300.0	45095
MB 880-45095/1-A	Method Blank	Soluble	Solid	300.0	45095
LCS 880-45095/2-A	Lab Control Sample	Soluble	Solid	300.0	45095
LCSD 880-45095/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45095
890-3976-A-2-E MS	Matrix Spike	Soluble	Solid	300.0	45095
890-3976-A-2-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45095

Lab Chronicle

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Client Sample ID: PH01

Date Collected: 01/27/23 09:45
Date Received: 01/27/23 14:06

Lab Sample ID: 890-3977-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	45842	02/09/23 08:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45840	02/09/23 17:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45937	02/09/23 20:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45874	02/09/23 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45704	02/07/23 13:19	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45735	02/09/23 01:22	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	45095	01/30/23 16:15	KS	EET MID
Soluble	Analysis	300.0		1			45420	02/03/23 23:23	CH	EET MID

Client Sample ID: PH01A

Date Collected: 01/27/23 09:50
Date Received: 01/27/23 14:06

Lab Sample ID: 890-3977-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	45842	02/09/23 08:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45840	02/09/23 18:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45937	02/09/23 20:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45874	02/09/23 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45704	02/07/23 13:19	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45735	02/09/23 01:43	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	45095	01/30/23 16:15	KS	EET MID
Soluble	Analysis	300.0		1			45420	02/03/23 23:28	CH	EET MID

Client Sample ID: PH02

Date Collected: 01/27/23 09:55
Date Received: 01/27/23 14:06

Lab Sample ID: 890-3977-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	45842	02/09/23 08:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45840	02/09/23 18:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45937	02/09/23 20:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45874	02/09/23 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45704	02/07/23 13:19	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45735	02/09/23 02:25	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	45095	01/30/23 16:15	KS	EET MID
Soluble	Analysis	300.0		1			45420	02/05/23 14:26	CH	EET MID

Client Sample ID: PH02A

Date Collected: 01/27/23 10:00
Date Received: 01/27/23 14:06

Lab Sample ID: 890-3977-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	45842	02/09/23 08:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45840	02/09/23 18:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45937	02/09/23 20:25	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Client Sample ID: PH02A

Date Collected: 01/27/23 10:00
Date Received: 01/27/23 14:06

Lab Sample ID: 890-3977-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45874	02/09/23 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	45704	02/07/23 13:19	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45735	02/09/23 02:47	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	45095	01/30/23 16:15	KS	EET MID
Soluble	Analysis	300.0		1			45420	02/05/23 14:31	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 29 BS CTB

Job ID: 890-3977-1
SDG: 03C1558150

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3977-1	PH01	Solid	01/27/23 09:45	01/27/23 14:06	0.5'
890-3977-2	PH01A	Solid	01/27/23 09:50	01/27/23 14:06	1'
890-3977-3	PH02	Solid	01/27/23 09:55	01/27/23 14:06	0.5'
890-3977-4	PH02A	Solid	01/27/23 10:00	01/27/23 14:06	1'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Ben Belill	Bill to: (if different)	Garret Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989-854-0852	Email:	Garret.Green@ExxonMobil.com bbelill@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU 29 BS CTB	Turn Around	☑ Routine ☐ Rush
Project Number:	03C1558150	Due Date:	
Project Location:	32.10485, -103.80246	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Kase Parker		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.4
Total Containers:		Corrected Temperature:	1.2

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH01	S	1/27/2023	9:45	0.5'	Grab/	1		x	x	x
PH01A	S	1/27/2023	9:50	1'	Grab/	1		x	x	x
PH02	S	1/27/2023	9:55	0.5'	Grab/	1		x	x	x
PH02A	S	1/27/2023	10:00	1'	Grab/	1		x	x	x

ANALYSIS REQUEST

890-3977 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Incident ID: NAPP2235642838
Cost Center: 1851151001
AFE:

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stey	1-27-23 1406	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3977-1
SDG Number: 03C1558150

Login Number: 3977
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3977-1
SDG Number: 03C1558150

Login Number: 3977
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/03/23 01:00 PM

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

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Green, Garrett J
To: ocd.enviro@emnrd.nm.gov; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD; Hamlet, Robert, EMNRD
Cc: Tacoma Morrissey; DelawareSpills /SM
Subject: XTO - Sampling Notification (Week of 1/23/23 - 1/27/23)
Date: Thursday, January 19, 2023 9:34:01 AM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of Jan 23, 2023.

- Big Sinks 2-24-30 / NAB1913729531
- PLU PC 28 / nAPP2233349315
- Remuda 500 / NAPP2300441385, NAPP2300448092, NAPP2300641362 & nAPP2234832761
- PLU 29 BS CTB / nAPP2235642838

Thank you,

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

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 195402

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 195402
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Closure Report is Approved. The “step-out” samples on pad to verify the edge of the release should only be a maximum of 1-2 feet from the observed edge of the release. Stepping out away from the release area toward the edge of the pad may tell us whether or not the release left the active well pad, but it does not tell us where the actual edge of the release is located. When equipment is located in and around the release area, samples must come from the sidewalls of the release area excavation. The OCD needs to know if the release went in, around, or under equipment/tanks/pipelines. Not having sidewall samples from the actual excavation won’t give us those sampling data points that we need. “Step-out” samples should never be conducted if equipment is in the vicinity of the release area. If the release area is not laterally defined on future reports, the report will be immediately denied.	7/18/2023