Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2226646920
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: __12/09/2022_____

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

OCD Only

Received by: Jocelyn Harimon Date: 12/09/2022

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: 3/13/2023

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	NAPP2226646920
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 32.01942 Longitude -103.94261

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Ross Draw 2531	Site Type Central Tank Battery
Date Release Discovered 09/11/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
D	25	26S	29E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 0.60	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: A malfunctioning valve sent fluid out the high pressure flare line, which ignited on the pad surface. Fire extinguished itself with no injuries and no damage to equipment. A third-party contractor has been retained for remediation purposes.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2226646920
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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 Melanie Collins to ocd.enviro@state.nm.us, Mike Bratcher, and Robert Hamlet on 09/12/2022 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: Shelby G. Pennington Title: Environmental Manager

Signature: Shelby Pennington Date: 9/23/22

email: shelby.g.pennington@exxonmobil.com Telephone: 281-723-9853

OCD Only

Received by: Jocelyn Harimon Date: 09/23/2022

Incident ID	NAPP2226646920
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.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2226646920
District RP	
Facility ID	
Application ID	

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Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature:_____ Date: ____12/09/2022_____

email: _garrett.green@exxonmobil.com_____ Telephone: ____575-200-0729_____

OCD Only

Received by: _____Jocelyn Harimon_____ Date: 12/09/2022

Incident ID	NAPP2226646920
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Closure

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☒ 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)

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Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: _____ Date: __12/09/2022_____

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

OCD Only

Received by: Jocelyn Harimon Date: 12/09/2022

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

December 9, 2022

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

Re: Closure Request
Ross Draw 2531
Incident Number NAPP2226646920
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 site assessment and soil sampling activities at the Ross Draw 2531 (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of crude oil after a 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 NAPP2226646920.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit D, Section 25, Township 26 South, Range 29 East, in Eddy County, New Mexico (32.01942°N, 103.94261°W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On September 11, 2022, a valve malfunction caused fluids to release through the high-pressure flare line causing approximately 0.6 barrels (bbls) of crude oil to exit the flare and ignite. There were no fluids to recover, and the fire extinguished itself. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on September 12, 2022 and submitted a Release Notification Form C-141 (Form C-141) on September 23, 2022. The release was assigned Incident Number NAPP2226646920.

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 drilled for determination of regional groundwater depth. On July 28, 2021, a soil boring (C-4561) was drilled within a ½ mile northeast of the Site and was advanced to a depth of 105 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 105 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. 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 768 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 from 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). Potential 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 November 11, 2022, site assessment and delineation activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Ensolum personnel advanced two potholes (PH01 and PH02) by use of heavy equipment 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. Additionaly, Ensolum personnel collected four discrete delineation soil samples (SS01 through SS04) at 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. Field screening results and observations for the delineation soil samples were logged on lithologic soil sampling logs, which are included in Appendix B. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) 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.

Following the delineation activities, surface scraping by use of heavy equipment and hand tools was completed on the stained area within the release extent. The soil was transported and properly disposed of at the R360 Landfill Facility in Hobbs, New Mexico. Photographic documentation is included in Appendix C.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all delineation soil samples (PH01, PH02, and SS01 through SS04) indicated COC concentrations are in compliance with the Site Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix D.

CLOSURE REQUEST

Site assessment and delineation activities were conducted at the Site to assess for the presence or absence of impacted soil from the September 11, 2022 release of crude oil and flare fire. Laboratory analytical results for all delineation soil samples indicated COC concentrations were in compliance with the Site Closure Criteria.

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 NAPP2226646920.

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

Sincerely,
Ensolum, LLC

Benjamin J. Belill
Project Geologist

Ashley L. Ager, P.G.
Program Director

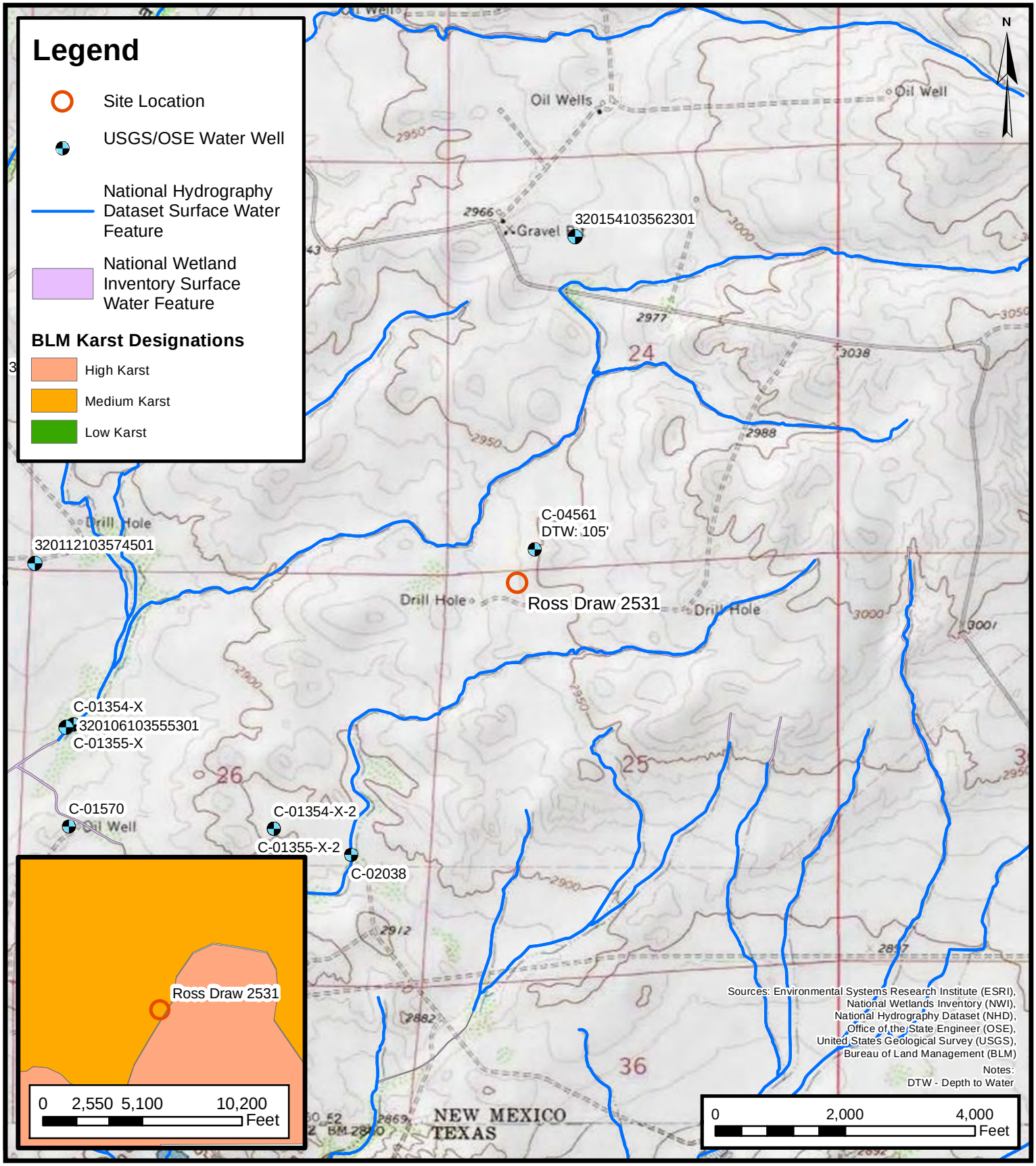
cc: Garrett Green, XTO
Shelby Pennington, XTO
Bureau of Land Management

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	Lithology Soil Sampling Logs
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Notifications

ENSOLUM

FIGURES



Document Path: C:\Users\Justin Valdez\GIS\Ensolum GIS\3 - Carlsbad\XTO Energy\03E1558137 - Ross Draw 253111 - MXDs\Figure 1 - Site Receptor Map.mxd

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

Ross Draw 2531
XTO Energy, Inc
Unit D Sec 25 T26S R29E
Eddy County, New Mexico
Incident Number: NAPP2226646920

FIGURE
1

Document Path: C:\Users\Justin Valdez\GIS\Ensolum GIS\3 - Carlsbad\XTO Energy\03E1558137 - Ross Draw 25311 - MXDs\Figure 2 Delineation Soil Sample Location.mxd

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

Ross Draw 2531
XTO Energy, Inc
Unit D Sec 25 T26S R29E
Eddy County, New Mexico
Incident Number: NAPP2226646920

FIGURE
2

ENSOLUM

TABLES

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Ross Draw 2531
XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples										
SS01	11/22/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	50.6
SS02	11/22/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	23.7
SS03	11/22/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	45.7
SS04	11/22/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	48.9
PH01	11/22/2022	0.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	19.0
PH01A	11/22/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	42.8
PH02	11/22/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	136
PH02A	11/22/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	129

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 1 Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

ENSOLUM

APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DIT AUG 17 2021 PM 3:11

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4561

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	1	14.17	N
	LONGITUDE	103	56	30.83	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

SE SW Sec. 31T23S R33E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
07/28/2021	07/28/2021	temporary well material	105	n/a

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: Hollow Stem Auger

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)
0	105	±6.5	Boring- HSA	--	--	--	--

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

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4561	POD NO. POD1	TRN NO. 701043
LOCATION 24S-29E-24 433	WELL TAG ID NO.	PAGE 1 OF 2

OSE DIT AUG 17 2021 PM3:11

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	5	5	Caliche, poor- moderate consolidation, Off white-tan	Y ✓ N	
5	10	5	Sand, fine grained, poorly graded, with caliche gravel, Reddish Brown	Y ✓ N	
10	25	15	Clayey Sand, fine grained, poorly graded, Reddish Brown	Y ✓ N	
25	30	5	Silty Sand, fine grained, poorly graded, Reddish Brown , Dry	Y ✓ N	
30	45	15	Gravelly Silty, some gypsum, graded, Reddish Brown , Dry	Y ✓ N	
45	60	15	Siltstone, poorly cemented, Reddish Brown, Dry	Y ✓ N	
60	105	45	Claystone, Low plasticity,cohesive, some gypsum, Reddish Brown-Dark , moist	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:

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: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.

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

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 08/16/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	C-456	POD NO.	POD 1	TRN NO.	701043
LOCATION	24S-29E-24433			WELL TAG ID NO.	PAGE 2 OF 2

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM

Sample Name: PH01	Date: 11/22/22
Site Name: Ross Draw 2531	
Incident Number: NAPP2226646920	
Job Number: 03E1558137	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Kase Parker / Method: Backhoe
Coordinates: 32.01929,-103.94274	Hole Diameter: N/A / 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. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-1', CALICHE, moist, brown-light brown, some fine grained sand, poorly consolidated, no odor, charred surface staining, fill.
M	<173	0.3	N	PH01	0.5	0.5		0.25'-1', no stain.
M	<173	0.0	N	PH01A	1	1		
							TD	Total depth at 1-foot below ground surface.

ENSOLUM	Sample Name: PH02	Date: 11/22/22
	Site Name: Ross Draw 2531	
	Incident Number: NAPP2226646920	
	Job Number: 03E1558137	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Kase Parker	Method: Backhoe
Coordinates: 32.01931,-103.942701	Hole Diameter: N/A	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. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-1', CALICHE, moist, brown-light brown, some fine grained sand, poorly consolidated, no odor, charred surface staining, fill.
M	<173	0.1	N	PH02	0.5	0.5		0.25'-1', no stain.
M	<173	0.0	N	PH02A	1	1		
							TD	Total depth at 1-foot below ground surface.

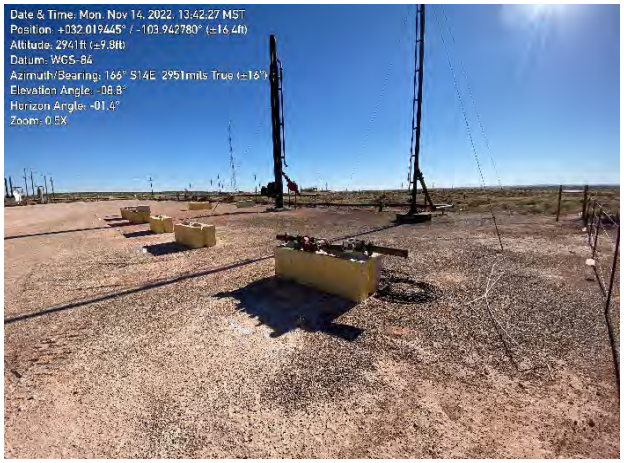
ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
Ross Draw 2531
Incident Number NAPP2226646920



Photograph 1 Date: 11/14/2022
Description: Site assessment activities, release extent area facing south.

Photograph 2 Date: 11/22/2022
Description: Delineation activities, PH01 area facing north.

Photograph 3 Date: 11/22/2022
Description: Surface scraping activities, facing west.

Photograph 4 Date: 11/22/2022
Description: Surface scraping activities, facing north.

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 12/5/2022 1:07:50 PM

JOB DESCRIPTION

Ross Draw 2531
SDG NUMBER 03E1558137

JOB NUMBER

890-3551-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

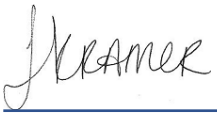
Released to Imaging: 3/13/2023 2:45:13 PM

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
12/5/2022 1:07:50 PM

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

Client: Ensolum
Project/Site: Ross Draw 2531

Laboratory Job ID: 890-3551-1
SDG: 03E1558137

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Eurofins Carlsbad
12/5/2022

Definitions/Glossary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

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: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Job ID: 890-3551-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3551-1

Receipt
The samples were received on 11/22/2022 3:00 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 21.8°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-3551-1), SS02 (890-3551-2), SS03 (890-3551-3) and SS04 (890-3551-4).

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 880-40544 and analytical batch 880-40553 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-40544/2-A) and (LCSD 880-40544/3-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-3551-1), SS02 (890-3551-2), SS03 (890-3551-3) and SS04 (890-3551-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-40386 and analytical batch 880-40550 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.The associated samples are: SS01 (890-3551-1), SS02 (890-3551-2) and SS03 (890-3551-3).

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: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Client Sample ID: SS01

Lab Sample ID: 890-3551-1
Matrix: Solid
Date Collected: 11/22/22 12:00
Date Received: 11/22/22 15:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:59	12/05/22 00:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:59	12/05/22 00:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:59	12/05/22 00:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/29/22 09:59	12/05/22 00:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:59	12/05/22 00:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/29/22 09:59	12/05/22 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*11/29/22 09:59*	*12/05/22 00:23*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*11/29/22 09:59*	*12/05/22 00:23*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/05/22 13:56	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/30/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/29/22 08:43	11/30/22 00:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/29/22 08:43	11/30/22 00:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/29/22 08:43	11/30/22 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*11*	*S1-*	*70 - 130*	*11/29/22 08:43*	*11/30/22 00:23*	*1*
o-Terphenyl	*0.6*	*S1-*	*70 - 130*	*11/29/22 08:43*	*11/30/22 00:23*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**50.6**		5.00		mg/Kg			11/29/22 11:13	1

Client Sample ID: SS02

Lab Sample ID: 890-3551-2
Matrix: Solid
Date Collected: 11/22/22 12:05
Date Received: 11/22/22 15:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:59	12/05/22 00:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:59	12/05/22 00:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:59	12/05/22 00:43	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/29/22 09:59	12/05/22 00:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:59	12/05/22 00:43	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/29/22 09:59	12/05/22 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*11/29/22 09:59*	*12/05/22 00:43*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Client Sample ID: SS02

Date Collected: 11/22/22 12:05
Date Received: 11/22/22 15:00
Sample Depth: 0.5

Lab Sample ID: 890-3551-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/29/22 09:59*	*12/05/22 00:43*	*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			12/05/22 13:56	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/30/22 13:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/29/22 08:43	11/30/22 00:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/29/22 08:43	11/30/22 00:47	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/29/22 08:43	11/30/22 00:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*10*	*S1-*	*70 - 130*	*11/29/22 08:43*	*11/30/22 00:47*	*1*
o-Terphenyl	*0.4*	*S1-*	*70 - 130*	*11/29/22 08:43*	*11/30/22 00:47*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.7**		4.99	mg/Kg			11/29/22 11:21	1

Client Sample ID: SS03

Date Collected: 11/22/22 12:10
Date Received: 11/22/22 15:00
Sample Depth: 0.5

Lab Sample ID: 890-3551-3

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		11/29/22 09:59	12/05/22 01:03	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/29/22 09:59	12/05/22 01:03	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/29/22 09:59	12/05/22 01:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/29/22 09:59	12/05/22 01:03	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/29/22 09:59	12/05/22 01:03	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/29/22 09:59	12/05/22 01:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*11/29/22 09:59*	*12/05/22 01:03*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/29/22 09:59*	*12/05/22 01:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/05/22 13:56	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/30/22 13:52	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Client Sample ID: SS03

Lab Sample ID: 890-3551-3
Matrix: Solid
Date Collected: 11/22/22 12:10
Date Received: 11/22/22 15:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/29/22 08:43	11/30/22 01:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/29/22 08:43	11/30/22 01:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/29/22 08:43	11/30/22 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*9*	*S1-*	*70 - 130*	*11/29/22 08:43*	*11/30/22 01:13*	*1*
o-Terphenyl	*0.4*	*S1-*	*70 - 130*	*11/29/22 08:43*	*11/30/22 01:13*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**45.7**		4.95		mg/Kg			11/29/22 18:48	1

Client Sample ID: SS04

Lab Sample ID: 890-3551-4
Matrix: Solid
Date Collected: 11/22/22 12:15
Date Received: 11/22/22 15:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:59	12/05/22 01:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:59	12/05/22 01:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:59	12/05/22 01:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/29/22 09:59	12/05/22 01:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:59	12/05/22 01:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/29/22 09:59	12/05/22 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*11/29/22 09:59*	*12/05/22 01:24*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*11/29/22 09:59*	*12/05/22 01:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/05/22 13:56	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/30/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/29/22 08:43	11/30/22 01:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/29/22 08:43	11/30/22 01:37	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/29/22 08:43	11/30/22 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*28*	*S1-*	*70 - 130*	*11/29/22 08:43*	*11/30/22 01:37*	*1*
o-Terphenyl	*18*	*S1-*	*70 - 130*	*11/29/22 08:43*	*11/30/22 01:37*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Client Sample ID: SS04
Date Collected: 11/22/22 12:15
Date Received: 11/22/22 15:00
Sample Depth: 0.5

Lab Sample ID: 890-3551-4
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.9		4.97		mg/Kg			11/29/22 11:37	1

Surrogate Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

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)
880-21910-A-1-E MS	Matrix Spike	95	113
880-21910-A-1-F MSD	Matrix Spike Duplicate	44 S1-	116
890-3551-1	SS01	99	90
890-3551-2	SS02	105	100
890-3551-3	SS03	104	98
890-3551-4	SS04	99	92
LCS 880-40587/1-A	Lab Control Sample	101	116
LCSD 880-40587/2-A	Lab Control Sample Dup	93	115
MB 880-40587/5-A	Method Blank	84	103

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)
880-21877-A-1-C MS	Matrix Spike	114	120
880-21877-A-1-D MSD	Matrix Spike Duplicate	118	120
890-3551-1	SS01	11 S1-	0.6 S1-
890-3551-2	SS02	10 S1-	0.4 S1-
890-3551-3	SS03	9 S1-	0.4 S1-
890-3551-4	SS04	28 S1-	18 S1-
LCS 880-40544/2-A	Lab Control Sample	189 S1+	219 S1+
LCSD 880-40544/3-A	Lab Control Sample Dup	164 S1+	196 S1+
MB 880-40544/1-A	Method Blank	101	131 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-40587/5-A
Matrix: Solid
Analysis Batch: 40979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40587

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:59	12/04/22 17:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:59	12/04/22 17:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:59	12/04/22 17:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/29/22 09:59	12/04/22 17:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:59	12/04/22 17:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/29/22 09:59	12/04/22 17:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*11/29/22 09:59*	*12/04/22 17:50*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/29/22 09:59*	*12/04/22 17:50*	*1*

Lab Sample ID: LCS 880-40587/1-A
Matrix: Solid
Analysis Batch: 40979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40587

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1195		mg/Kg		120	70 - 130		
Toluene			0.100	0.1026		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.09754		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene			0.200	0.2005		mg/Kg		100	70 - 130		
o-Xylene			0.100	0.1000		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: LCSD 880-40587/2-A
Matrix: Solid
Analysis Batch: 40979

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40587

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1138		mg/Kg		114	70 - 130	5	35
Toluene			0.100	0.09494		mg/Kg		95	70 - 130	8	35
Ethylbenzene			0.100	0.09156		mg/Kg		92	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1874		mg/Kg		94	70 - 130	7	35
o-Xylene			0.100	0.09231		mg/Kg		92	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*

Lab Sample ID: 880-21910-A-1-E MS
Matrix: Solid
Analysis Batch: 40979

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40587

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0996	0.1051		mg/Kg		105	70 - 130		
Toluene	<0.00201	U	0.0996	0.08540		mg/Kg		86	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

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

Lab Sample ID: 880-21910-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40979 — **Prep Batch: 40587**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.0996	0.07733		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1566		mg/Kg		79	70 - 130
o-Xylene	<0.00201	U	0.0996	0.07800		mg/Kg		78	70 - 130

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

Lab Sample ID: 880-21910-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40979 — **Prep Batch: 40587**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.09691		mg/Kg		98	70 - 130	8	35
Toluene	<0.00201	U	0.0990	0.08052		mg/Kg		81	70 - 130	6	35
Ethylbenzene	<0.00201	U	0.0990	0.07681		mg/Kg		78	70 - 130	1	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1562		mg/Kg		79	70 - 130	0	35
o-Xylene	<0.00201	U	0.0990	0.07702		mg/Kg		78	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*44*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

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

Lab Sample ID: MB 880-40544/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40553 — **Prep Batch: 40544**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/29/22 08:43	11/29/22 15:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/29/22 08:43	11/29/22 15:35	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/29/22 08:43	11/29/22 15:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*11/29/22 08:43*	*11/29/22 15:35*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*11/29/22 08:43*	*11/29/22 15:35*	*1*

Lab Sample ID: LCS 880-40544/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40553 — **Prep Batch: 40544**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	874.6		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1088		mg/Kg		109	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

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

Lab Sample ID: LCS 880-40544/2-A
Matrix: Solid
Analysis Batch: 40553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40544

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	189	S1+	70 - 130
o-Terphenyl	219	S1+	70 - 130

Lab Sample ID: LCSD 880-40544/3-A
Matrix: Solid
Analysis Batch: 40553

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40544

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1073		mg/Kg		107	70 - 130	20	20
Diesel Range Organics (Over C10-C28)			1000	981.8		mg/Kg		98	70 - 130	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	164	S1+	70 - 130
o-Terphenyl	196	S1+	70 - 130

Lab Sample ID: 880-21877-A-1-C MS
Matrix: Solid
Analysis Batch: 40553

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40544

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1127		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	152		999	1105		mg/Kg		95	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	120		70 - 130

Lab Sample ID: 880-21877-A-1-D MSD
Matrix: Solid
Analysis Batch: 40553

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40544

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1152		mg/Kg		113	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	152		997	1111		mg/Kg		96	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	120		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40386/1-A
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/29/22 09:19	1

Lab Sample ID: LCS 880-40386/2-A
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	241.4		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-40386/3-A
Matrix: Solid
Analysis Batch: 40550

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	242.0		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-3551-4 MS
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: SS04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	48.9		249	299.9		mg/Kg		101	90 - 110		

Lab Sample ID: 890-3551-4 MSD
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: SS04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	48.9		249	300.2		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

GC VOA

Prep Batch: 40587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3551-1	SS01	Total/NA	Solid	5035	
890-3551-2	SS02	Total/NA	Solid	5035	
890-3551-3	SS03	Total/NA	Solid	5035	
890-3551-4	SS04	Total/NA	Solid	5035	
MB 880-40587/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40587/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40587/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21910-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-21910-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3551-1	SS01	Total/NA	Solid	8021B	40587
890-3551-2	SS02	Total/NA	Solid	8021B	40587
890-3551-3	SS03	Total/NA	Solid	8021B	40587
890-3551-4	SS04	Total/NA	Solid	8021B	40587
MB 880-40587/5-A	Method Blank	Total/NA	Solid	8021B	40587
LCS 880-40587/1-A	Lab Control Sample	Total/NA	Solid	8021B	40587
LCSD 880-40587/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40587
880-21910-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	40587
880-21910-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40587

Analysis Batch: 41047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3551-1	SS01	Total/NA	Solid	Total BTEX	
890-3551-2	SS02	Total/NA	Solid	Total BTEX	
890-3551-3	SS03	Total/NA	Solid	Total BTEX	
890-3551-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 40544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3551-1	SS01	Total/NA	Solid	8015NM Prep	
890-3551-2	SS02	Total/NA	Solid	8015NM Prep	
890-3551-3	SS03	Total/NA	Solid	8015NM Prep	
890-3551-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-40544/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-40544/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-40544/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-21877-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-21877-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 40553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3551-1	SS01	Total/NA	Solid	8015B NM	40544
890-3551-2	SS02	Total/NA	Solid	8015B NM	40544
890-3551-3	SS03	Total/NA	Solid	8015B NM	40544
890-3551-4	SS04	Total/NA	Solid	8015B NM	40544
MB 880-40544/1-A	Method Blank	Total/NA	Solid	8015B NM	40544
LCS 880-40544/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	40544

QC Association Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

GC Semi VOA (Continued)

Analysis Batch: 40553 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-40544/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	40544
880-21877-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	40544
880-21877-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	40544

Analysis Batch: 40707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3551-1	SS01	Total/NA	Solid	8015 NM	
890-3551-2	SS02	Total/NA	Solid	8015 NM	
890-3551-3	SS03	Total/NA	Solid	8015 NM	
890-3551-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 40386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3551-1	SS01	Soluble	Solid	DI Leach	
890-3551-2	SS02	Soluble	Solid	DI Leach	
890-3551-3	SS03	Soluble	Solid	DI Leach	
890-3551-4	SS04	Soluble	Solid	DI Leach	
MB 880-40386/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40386/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40386/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3551-4 MS	SS04	Soluble	Solid	DI Leach	
890-3551-4 MSD	SS04	Soluble	Solid	DI Leach	

Analysis Batch: 40550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3551-1	SS01	Soluble	Solid	300.0	40386
890-3551-2	SS02	Soluble	Solid	300.0	40386
890-3551-3	SS03	Soluble	Solid	300.0	40386
890-3551-4	SS04	Soluble	Solid	300.0	40386
MB 880-40386/1-A	Method Blank	Soluble	Solid	300.0	40386
LCS 880-40386/2-A	Lab Control Sample	Soluble	Solid	300.0	40386
LCSD 880-40386/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40386
890-3551-4 MS	SS04	Soluble	Solid	300.0	40386
890-3551-4 MSD	SS04	Soluble	Solid	300.0	40386

Lab Chronicle

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Client Sample ID: SS01
Date Collected: 11/22/22 12:00
Date Received: 11/22/22 15:00

Lab Sample ID: 890-3551-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	40587	11/29/22 09:59	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40979	12/05/22 00:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			41047	12/05/22 13:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40707	11/30/22 13:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	40544	11/29/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40553	11/30/22 00:23	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	40386	11/28/22 08:56	CH	EET MID
Soluble	Analysis	300.0		1			40550	11/29/22 11:13	SMC	EET MID

Client Sample ID: SS02
Date Collected: 11/22/22 12:05
Date Received: 11/22/22 15:00

Lab Sample ID: 890-3551-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	40587	11/29/22 09:59	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40979	12/05/22 00:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			41047	12/05/22 13:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40707	11/30/22 13:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	40544	11/29/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40553	11/30/22 00:47	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	40386	11/28/22 08:56	CH	EET MID
Soluble	Analysis	300.0		1			40550	11/29/22 11:21	SMC	EET MID

Client Sample ID: SS03
Date Collected: 11/22/22 12:10
Date Received: 11/22/22 15:00

Lab Sample ID: 890-3551-3
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	40587	11/29/22 09:59	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40979	12/05/22 01:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			41047	12/05/22 13:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40707	11/30/22 13:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	40544	11/29/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40553	11/30/22 01:13	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	40386	11/28/22 08:56	CH	EET MID
Soluble	Analysis	300.0		1			40550	11/29/22 18:48	SMC	EET MID

Client Sample ID: SS04
Date Collected: 11/22/22 12:15
Date Received: 11/22/22 15:00

Lab Sample ID: 890-3551-4
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	40587	11/29/22 09:59	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40979	12/05/22 01:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			41047	12/05/22 13:56	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Client Sample ID: SS04

Date Collected: 11/22/22 12:15
Date Received: 11/22/22 15:00

Lab Sample ID: 890-3551-4

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			40707	11/30/22 13:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	40544	11/29/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40553	11/30/22 01:37	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	40386	11/28/22 08:56	CH	EET MID
Soluble	Analysis	300.0		1			40550	11/29/22 11:37	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3551-1
SDG: 03E1558137

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3551-1	SS01	Solid	11/22/22 12:00	11/22/22 15:00	0.5
890-3551-2	SS02	Solid	11/22/22 12:05	11/22/22 15:00	0.5
890-3551-3	SS03	Solid	11/22/22 12:10	11/22/22 15:00	0.5
890-3551-4	SS04	Solid	11/22/22 12:15	11/22/22 15:00	0.5

Released to Imaging: 3/13/2023 2:45:13 PM
Received by OCD: 12/9/2022 12:38:21 PM

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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

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:	Ross Draw 2531	Turn Around	
Project Number:	03E1558137	☑ Routine ☐ Rush	
Project Location:	32.01942,-103.94261	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:	TM005	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	22.0	
Total Containers:		Corrected Temperature:	21.8	

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	11/22/2022	12:00	0.5'	Grab/	1		x	x	x
SS02	S	11/22/2022	12:05	0.5'	Grab/	1		x	x	x
SS03	S	11/22/2022	12:10	0.5'	Grab/	1		x	x	x
SS04	S	11/22/2022	12:15	0.5'	Grab/	1		x	x	x

890-3551 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:
NAPP2226646920
Cost Center:
1056651001
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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11-22-22 1580			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-1042 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-3551-1
Address: 1211 W Florida Ave	Due Date Requested: 11/30/2022			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: ross draw 2531	Project #: 89000093			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P - Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note.
			Preservation Code:										
SS01 (890-3551-1)	11/22/22	12 00 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-3551-2)	11/22/22	12 05 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-3551-3)	11/22/22	12 10 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-3551-4)	11/22/22	12 15 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Received by OCD: 12/9/2022 12:38:21 PM
Released to Imaging: 3/13/2023 2:45:13 PM
12/5/2022

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3551-1
SDG Number: 03E1558137

Login Number: 3551
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3551-1
SDG Number: 03E1558137

Login Number: 3551
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 11/23/22 11:47 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/2/2022 11:58:48 AM

JOB DESCRIPTION

Ross Draw 2531
SDG NUMBER 03E1558137

JOB NUMBER

890-3553-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

Released to Imaging: 3/13/2023 2:45:13 PM

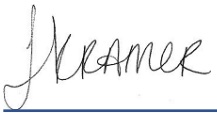
my EOL

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



Generated
12/2/2022 11:58:48 AM

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

Client: Ensolum
Project/Site: Ross Draw 2531

Laboratory Job ID: 890-3553-1
SDG: 03E1558137

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Definitions/Glossary

Client: Ensolum Job ID: 890-3553-1
Project/Site: Ross Draw 2531 SDG: 03E1558137

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

Job ID: 890-3553-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3553-1

Receipt
The samples were received on 11/22/2022 3:00 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 21.8°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH02 (890-3553-1) and PH02A (890-3553-2).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-40580 and analytical batch 880-40772 was outside the control limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-3543-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: PH02 (890-3553-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-40352 and analytical batch 880-40348 was outside the upper control limits.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

Client Sample ID: PH02

Date Collected: 11/22/22 11:35
Date Received: 11/22/22 15:00
Sample Depth: 0.5

Lab Sample ID: 890-3553-1
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		11/29/22 09:40	12/02/22 00:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:40	12/02/22 00:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:40	12/02/22 00:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/29/22 09:40	12/02/22 00:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/29/22 09:40	12/02/22 00:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/29/22 09:40	12/02/22 00:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*11/29/22 09:40*	*12/02/22 00:16*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*11/29/22 09:40*	*12/02/22 00:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/02/22 11:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/28/22 08:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/24/22 11:08	11/24/22 18:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/24/22 11:08	11/24/22 18:08	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/24/22 11:08	11/24/22 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*11/24/22 11:08*	*11/24/22 18:08*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*11/24/22 11:08*	*11/24/22 18:08*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**136**		25.0		mg/Kg			11/29/22 12:10	5

Client Sample ID: PH02A

Date Collected: 11/22/22 11:40
Date Received: 11/22/22 15:00
Sample Depth: 1

Lab Sample ID: 890-3553-2
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		11/29/22 09:40	12/02/22 00:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:40	12/02/22 00:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:40	12/02/22 00:41	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/29/22 09:40	12/02/22 00:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:40	12/02/22 00:41	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/29/22 09:40	12/02/22 00:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*11/29/22 09:40*	*12/02/22 00:41*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

Client Sample ID: PH02A

Date Collected: 11/22/22 11:40
Date Received: 11/22/22 15:00
Sample Depth: 1

Lab Sample ID: 890-3553-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/29/22 09:40*	*12/02/22 00:41*	*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			12/02/22 11:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/28/22 08:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/24/22 11:08	11/24/22 18:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/24/22 11:08	11/24/22 18:30	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/24/22 11:08	11/24/22 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*11/24/22 11:08*	*11/24/22 18:30*	*1*
o-Terphenyl	*125*		*70 - 130*	*11/24/22 11:08*	*11/24/22 18:30*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**129**		5.01		mg/Kg			11/29/22 19:04	1

Surrogate Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

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)										
880-21876-A-1-D MS	Matrix Spike	120	102										
880-21876-A-1-E MSD	Matrix Spike Duplicate	106	97										
890-3553-1	PH02	121	106										
890-3553-2	PH02A	102	94										
LCS 880-40580/1-A	Lab Control Sample	102	99										
LCSD 880-40580/2-A	Lab Control Sample Dup	112	104										
MB 880-40580/5-A	Method Blank	67 S1-	93										

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)										
890-3543-A-1-B MS	Matrix Spike	121	120										
890-3543-A-1-C MSD	Matrix Spike Duplicate	135 S1+	135 S1+										
890-3553-1	PH02	115	131 S1+										
890-3553-2	PH02A	109	125										
LCS 880-40352/2-A	Lab Control Sample	85	95										
LCSD 880-40352/3-A	Lab Control Sample Dup	81	88										
MB 880-40352/1-A	Method Blank	128	146 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-40580/5-A
Matrix: Solid
Analysis Batch: 40772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40580

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:40	12/01/22 14:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:40	12/01/22 14:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:40	12/01/22 14:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/29/22 09:40	12/01/22 14:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/29/22 09:40	12/01/22 14:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/29/22 09:40	12/01/22 14:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*11/29/22 09:40*	*12/01/22 14:56*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/29/22 09:40*	*12/01/22 14:56*	*1*

Lab Sample ID: LCS 880-40580/1-A
Matrix: Solid
Analysis Batch: 40772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40580

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1164		mg/Kg		116	70 - 130		
Toluene			0.100	0.1101		mg/Kg		110	70 - 130		
Ethylbenzene			0.100	0.1122		mg/Kg		112	70 - 130		
m-Xylene & p-Xylene			0.200	0.2252		mg/Kg		113	70 - 130		
o-Xylene			0.100	0.1137		mg/Kg		114	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-40580/2-A
Matrix: Solid
Analysis Batch: 40772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40580

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1288		mg/Kg		129	70 - 130	10	35
Toluene			0.100	0.1287		mg/Kg		129	70 - 130	16	35
Ethylbenzene			0.100	0.1209		mg/Kg		121	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.2409		mg/Kg		120	70 - 130	7	35
o-Xylene			0.100	0.1225		mg/Kg		122	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 880-21876-A-1-D MS
Matrix: Solid
Analysis Batch: 40772

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40580

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0996	0.09212		mg/Kg		92	70 - 130		
Toluene	<0.00200	U	0.0996	0.09855		mg/Kg		99	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

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

Lab Sample ID: 880-21876-A-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40772 — **Prep Batch: 40580**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0996	0.09727		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1949		mg/Kg		98	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1015		mg/Kg		102	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-21876-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40772 — **Prep Batch: 40580**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.09389		mg/Kg		95	70 - 130	2	35
Toluene	<0.00200	U	0.0990	0.1064		mg/Kg		107	70 - 130	8	35
Ethylbenzene	<0.00200	U	0.0990	0.1012		mg/Kg		102	70 - 130	4	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.2025		mg/Kg		102	70 - 130	4	35
o-Xylene	<0.00200	U	0.0990	0.1030		mg/Kg		104	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-40352/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40348 — **Prep Batch: 40352**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/24/22 08:48	11/24/22 08:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/24/22 08:48	11/24/22 08:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/24/22 08:48	11/24/22 08:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*11/24/22 08:48*	*11/24/22 08:54*	*1*
o-Terphenyl	*146*	*S1+*	*70 - 130*	*11/24/22 08:48*	*11/24/22 08:54*	*1*

Lab Sample ID: LCS 880-40352/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40348 — **Prep Batch: 40352**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	965.7		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	867.1		mg/Kg		87	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

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

Lab Sample ID: LCS 880-40352/2-A
Matrix: Solid
Analysis Batch: 40348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40352

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: LCSD 880-40352/3-A
Matrix: Solid
Analysis Batch: 40348

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40352

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1062		mg/Kg		106	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	948.8		mg/Kg		95	70 - 130	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 890-3543-A-1-B MS
Matrix: Solid
Analysis Batch: 40348

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40352

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1165		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	263		999	1325		mg/Kg		106	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	120		70 - 130

Lab Sample ID: 890-3543-A-1-C MSD
Matrix: Solid
Analysis Batch: 40348

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40352

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1299		mg/Kg		128	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	263		997	1505		mg/Kg		125	70 - 130	13	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	135	S1+	70 - 130
o-Terphenyl	135	S1+	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40386/1-A
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/29/22 09:19	1

Lab Sample ID: LCS 880-40386/2-A
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	241.4		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-40386/3-A
Matrix: Solid
Analysis Batch: 40550

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	242.0		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-3551-A-4-A MS
Matrix: Solid
Analysis Batch: 40550

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	48.9		249	299.9		mg/Kg		101	90 - 110		

Lab Sample ID: 890-3551-A-4-A MSD
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	48.9		249	300.2		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

GC VOA

Prep Batch: 40580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3553-1	PH02	Total/NA	Solid	5035	
890-3553-2	PH02A	Total/NA	Solid	5035	
MB 880-40580/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40580/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40580/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21876-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-21876-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3553-1	PH02	Total/NA	Solid	8021B	40580
890-3553-2	PH02A	Total/NA	Solid	8021B	40580
MB 880-40580/5-A	Method Blank	Total/NA	Solid	8021B	40580
LCS 880-40580/1-A	Lab Control Sample	Total/NA	Solid	8021B	40580
LCSD 880-40580/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40580
880-21876-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	40580
880-21876-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40580

Analysis Batch: 40877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3553-1	PH02	Total/NA	Solid	Total BTEX	
890-3553-2	PH02A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 40348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3553-1	PH02	Total/NA	Solid	8015B NM	40352
890-3553-2	PH02A	Total/NA	Solid	8015B NM	40352
MB 880-40352/1-A	Method Blank	Total/NA	Solid	8015B NM	40352
LCS 880-40352/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	40352
LCSD 880-40352/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	40352
890-3543-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	40352
890-3543-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	40352

Prep Batch: 40352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3553-1	PH02	Total/NA	Solid	8015NM Prep	
890-3553-2	PH02A	Total/NA	Solid	8015NM Prep	
MB 880-40352/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-40352/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-40352/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3543-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3543-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 40379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3553-1	PH02	Total/NA	Solid	8015 NM	
890-3553-2	PH02A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

HPLC/IC

Leach Batch: 40386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3553-1	PH02	Soluble	Solid	DI Leach	
890-3553-2	PH02A	Soluble	Solid	DI Leach	
MB 880-40386/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40386/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40386/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3551-A-4-A MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3551-A-4-A MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 40550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3553-1	PH02	Soluble	Solid	300.0	40386
890-3553-2	PH02A	Soluble	Solid	300.0	40386
MB 880-40386/1-A	Method Blank	Soluble	Solid	300.0	40386
LCS 880-40386/2-A	Lab Control Sample	Soluble	Solid	300.0	40386
LCSD 880-40386/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40386
890-3551-A-4-A MS	Matrix Spike	Soluble	Solid	300.0	40386
890-3551-A-4-A MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	40386

Lab Chronicle

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

Client Sample ID: PH02

Date Collected: 11/22/22 11:35
Date Received: 11/22/22 15:00

Lab Sample ID: 890-3553-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	40580	11/29/22 09:40	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40772	12/02/22 00:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40877	12/02/22 11:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			40379	11/28/22 08:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	40352	11/24/22 11:08	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40348	11/24/22 18:08	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	40386	11/28/22 08:56	CH	EET MID
Soluble	Analysis	300.0		5			40550	11/29/22 12:10	SMC	EET MID

Client Sample ID: PH02A

Date Collected: 11/22/22 11:40
Date Received: 11/22/22 15:00

Lab Sample ID: 890-3553-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	40580	11/29/22 09:40	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40772	12/02/22 00:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40877	12/02/22 11:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			40379	11/28/22 08:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	40352	11/24/22 11:08	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40348	11/24/22 18:30	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	40386	11/28/22 08:56	CH	EET MID
Soluble	Analysis	300.0		1			40550	11/29/22 19:04	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3553-1
SDG: 03E1558137

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3553-1	PH02	Solid	11/22/22 11:35	11/22/22 15:00	0.5
890-3553-2	PH02A	Solid	11/22/22 11:40	11/22/22 15:00	1

Released to Imaging: 3/13/2023 2:45:13 PM
Received by OCD: 12/9/2022 12:38:21 PM

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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

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:	Ross Draw 2531	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558137	Due Date:	
Project Location:	32.01942,-103.94261	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:	TMM007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	22.8	
Total Containers:		Corrected Temperature:	21.6	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH02	S	11/22/2022	11:35	0.5'	Grab/	1		x	x	x
PH02A	S	11/22/2022	11:40	1'	Grab/	1		x	x	x

Parameters

890-3553 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:
NAPP2226646920
Cost Center:
1056651001
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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11-22-22 1500	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-1042 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-3553-1
Address: 1211 W Florida Ave	Due Date Requested: 11/30/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: ROSS DRAW 2531	Project #: 89000093			
Site:	SSOW#:			

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P - Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
PH02 (890-3553-1)	11/22/22	11 35 Mountain		Solid			X	X	X	X	X	1	
PH02A (890-3553-2)	11/22/22	11 40 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by: Clue			Received by: Kramer	11/23 1134	
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Received by OCD: 12/9/2022 12:38:21 PM
Released to Imaging: 3/13/2023 2:45:13 PM
12/2/2022

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3553-1
SDG Number: 03E1558137

Login Number: 3553
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3553-1
SDG Number: 03E1558137

Login Number: 3553
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 11/23/22 11:47 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/2/2022 3:58:35 PM

JOB DESCRIPTION

Ross Draw 2531
SDG NUMBER 03E1558137

JOB NUMBER

890-3554-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

Released to Imaging: 3/13/2023 2:45:13 PM

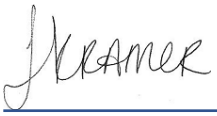
my EOL

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



Generated
12/2/2022 3:58:35 PM

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

Client: Ensolum
Project/Site: Ross Draw 2531

Laboratory Job ID: 890-3554-1
SDG: 03E1558137

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Definitions/Glossary

Client: Ensolum Job ID: 890-3554-1
Project/Site: Ross Draw 2531 SDG: 03E1558137

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

Job ID: 890-3554-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3554-1

Receipt
The samples were received on 11/22/2022 3:00 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 21.8°C

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-40625 and analytical batch 880-40842 was outside the control limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-3543-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-40352 and analytical batch 880-40348 was outside the upper control limits.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

Client Sample ID: PH01

Date Collected: 11/22/22 11:25
Date Received: 11/22/22 15:00
Sample Depth: 0.5

Lab Sample ID: 890-3554-1
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		11/29/22 16:02	12/02/22 15:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 15:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 15:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/29/22 16:02	12/02/22 15:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 15:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/29/22 16:02	12/02/22 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/29/22 16:02*	*12/02/22 15:14*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*11/29/22 16:02*	*12/02/22 15:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			12/02/22 16:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/28/22 08:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/24/22 11:08	11/24/22 18:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/24/22 11:08	11/24/22 18:51	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/24/22 11:08	11/24/22 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*11/24/22 11:08*	*11/24/22 18:51*	*1*
o-Terphenyl	*126*		*70 - 130*	*11/24/22 11:08*	*11/24/22 18:51*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.0**		4.98		mg/Kg			11/29/22 19:13	1

Client Sample ID: PH01A

Date Collected: 11/22/22 11:30
Date Received: 11/22/22 15:00
Sample Depth: 1

Lab Sample ID: 890-3554-2
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		11/29/22 16:02	12/02/22 15:41	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 15:41	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 15:41	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/29/22 16:02	12/02/22 15:41	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 15:41	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/29/22 16:02	12/02/22 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*11/29/22 16:02*	*12/02/22 15:41*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

Client Sample ID: PH01A
Date Collected: 11/22/22 11:30
Date Received: 11/22/22 15:00
Sample Depth: 1

Lab Sample ID: 890-3554-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/29/22 16:02*	*12/02/22 15:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			12/02/22 16:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/28/22 08:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/24/22 11:08	11/24/22 19:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/24/22 11:08	11/24/22 19:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/24/22 11:08	11/24/22 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*11/24/22 11:08*	*11/24/22 19:12*	*1*
o-Terphenyl	*124*		*70 - 130*	*11/24/22 11:08*	*11/24/22 19:12*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**42.8**		4.99		mg/Kg			11/29/22 12:50	1

Surrogate Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3549-A-1-C MS	Matrix Spike	114	102										
890-3549-A-1-D MSD	Matrix Spike Duplicate	104	101										
890-3554-1	PH01	120	91										
890-3554-2	PH01A	96	89										
LCS 880-40625/1-A	Lab Control Sample	105	100										
LCSD 880-40625/2-A	Lab Control Sample Dup	104	97										
MB 880-40625/5-A	Method Blank	68 S1-	94										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3543-A-1-B MS	Matrix Spike	121	120										
890-3543-A-1-C MSD	Matrix Spike Duplicate	135 S1+	135 S1+										
890-3554-1	PH01	110	126										
890-3554-2	PH01A	108	124										
LCS 880-40352/2-A	Lab Control Sample	85	95										
LCSD 880-40352/3-A	Lab Control Sample Dup	81	88										
MB 880-40352/1-A	Method Blank	128	146 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-40625/5-A
Matrix: Solid
Analysis Batch: 40842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40625

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 11:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 11:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 11:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/29/22 16:02	12/02/22 11:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 11:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/29/22 16:02	12/02/22 11:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*11/29/22 16:02*	*12/02/22 11:45*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/29/22 16:02*	*12/02/22 11:45*	*1*

Lab Sample ID: LCS 880-40625/1-A
Matrix: Solid
Analysis Batch: 40842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40625

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1252		mg/Kg		125	70 - 130		
Toluene			0.100	0.1206		mg/Kg		121	70 - 130		
Ethylbenzene			0.100	0.1093		mg/Kg		109	70 - 130		
m-Xylene & p-Xylene			0.200	0.2198		mg/Kg		110	70 - 130		
o-Xylene			0.100	0.1069		mg/Kg		107	70 - 130		

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

Lab Sample ID: LCSD 880-40625/2-A
Matrix: Solid
Analysis Batch: 40842

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40625

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1186		mg/Kg		119	70 - 130	5	35
Toluene			0.100	0.1151		mg/Kg		115	70 - 130	5	35
Ethylbenzene			0.100	0.1044		mg/Kg		104	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2094		mg/Kg		105	70 - 130	5	35
o-Xylene			0.100	0.1069		mg/Kg		107	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-3549-A-1-C MS
Matrix: Solid
Analysis Batch: 40842

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40625

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0996	0.1021		mg/Kg		103	70 - 130		
Toluene	<0.00201	U	0.0996	0.1062		mg/Kg		107	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

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

Lab Sample ID: 890-3549-A-1-C MS
Matrix: Solid
Analysis Batch: 40842

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40625

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.0996	0.1009		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2022		mg/Kg		101	70 - 130
o-Xylene	<0.00201	U	0.0996	0.1035		mg/Kg		104	70 - 130

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

Lab Sample ID: 890-3549-A-1-D MSD
Matrix: Solid
Analysis Batch: 40842

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40625

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.09136		mg/Kg		92	70 - 130	11	35
Toluene	<0.00201	U	0.0990	0.09165		mg/Kg		93	70 - 130	15	35
Ethylbenzene	<0.00201	U	0.0990	0.08677		mg/Kg		88	70 - 130	15	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1732		mg/Kg		87	70 - 130	15	35
o-Xylene	<0.00201	U	0.0990	0.08889		mg/Kg		90	70 - 130	15	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

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

Lab Sample ID: MB 880-40352/1-A
Matrix: Solid
Analysis Batch: 40348

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40352

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/24/22 08:48	11/24/22 08:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/24/22 08:48	11/24/22 08:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/24/22 08:48	11/24/22 08:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*11/24/22 08:48*	*11/24/22 08:54*	*1*
o-Terphenyl	*146*	*S1+*	*70 - 130*	*11/24/22 08:48*	*11/24/22 08:54*	*1*

Lab Sample ID: LCS 880-40352/2-A
Matrix: Solid
Analysis Batch: 40348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40352

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	965.7		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)			1000	867.1		mg/Kg		87	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

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

Lab Sample ID: LCS 880-40352/2-A
Matrix: Solid
Analysis Batch: 40348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40352

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: LCSD 880-40352/3-A
Matrix: Solid
Analysis Batch: 40348

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40352

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1062		mg/Kg		106	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	948.8		mg/Kg		95	70 - 130	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 890-3543-A-1-B MS
Matrix: Solid
Analysis Batch: 40348

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40352

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1165		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	263		999	1325		mg/Kg		106	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	120		70 - 130

Lab Sample ID: 890-3543-A-1-C MSD
Matrix: Solid
Analysis Batch: 40348

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40352

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1299		mg/Kg		128	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	263		997	1505		mg/Kg		125	70 - 130	13	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	135	S1+	70 - 130
o-Terphenyl	135	S1+	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40386/1-A
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/29/22 09:19	1

Lab Sample ID: LCS 880-40386/2-A
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	241.4		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-40386/3-A
Matrix: Solid
Analysis Batch: 40550

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	242.0		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-3551-A-4-A MS
Matrix: Solid
Analysis Batch: 40550

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	48.9		249	299.9		mg/Kg		101	90 - 110		

Lab Sample ID: 890-3551-A-4-A MSD
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	48.9		249	300.2		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

GC VOA

Prep Batch: 40625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3554-1	PH01	Total/NA	Solid	5035	
890-3554-2	PH01A	Total/NA	Solid	5035	
MB 880-40625/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40625/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40625/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3549-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3549-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3554-1	PH01	Total/NA	Solid	8021B	40625
890-3554-2	PH01A	Total/NA	Solid	8021B	40625
MB 880-40625/5-A	Method Blank	Total/NA	Solid	8021B	40625
LCS 880-40625/1-A	Lab Control Sample	Total/NA	Solid	8021B	40625
LCSD 880-40625/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40625
890-3549-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	40625
890-3549-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40625

Analysis Batch: 40913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3554-1	PH01	Total/NA	Solid	Total BTEX	
890-3554-2	PH01A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 40348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3554-1	PH01	Total/NA	Solid	8015B NM	40352
890-3554-2	PH01A	Total/NA	Solid	8015B NM	40352
MB 880-40352/1-A	Method Blank	Total/NA	Solid	8015B NM	40352
LCS 880-40352/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	40352
LCSD 880-40352/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	40352
890-3543-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	40352
890-3543-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	40352

Prep Batch: 40352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3554-1	PH01	Total/NA	Solid	8015NM Prep	
890-3554-2	PH01A	Total/NA	Solid	8015NM Prep	
MB 880-40352/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-40352/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-40352/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3543-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3543-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 40380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3554-1	PH01	Total/NA	Solid	8015 NM	
890-3554-2	PH01A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

HPLC/IC

Leach Batch: 40386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3554-1	PH01	Soluble	Solid	DI Leach	
890-3554-2	PH01A	Soluble	Solid	DI Leach	
MB 880-40386/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40386/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40386/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3551-A-4-A MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3551-A-4-A MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 40550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3554-1	PH01	Soluble	Solid	300.0	40386
890-3554-2	PH01A	Soluble	Solid	300.0	40386
MB 880-40386/1-A	Method Blank	Soluble	Solid	300.0	40386
LCS 880-40386/2-A	Lab Control Sample	Soluble	Solid	300.0	40386
LCSD 880-40386/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40386
890-3551-A-4-A MS	Matrix Spike	Soluble	Solid	300.0	40386
890-3551-A-4-A MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	40386

Lab Chronicle

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

Client Sample ID: PH01

Date Collected: 11/22/22 11:25
Date Received: 11/22/22 15:00

Lab Sample ID: 890-3554-1

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	40625	11/29/22 16:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40842	12/02/22 15:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40913	12/02/22 16:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			40380	11/28/22 08:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	40352	11/24/22 11:08	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40348	11/24/22 18:51	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	40386	11/28/22 08:56	CH	EET MID
Soluble	Analysis	300.0		1			40550	11/29/22 19:13	SMC	EET MID

Client Sample ID: PH01A

Date Collected: 11/22/22 11:30
Date Received: 11/22/22 15:00

Lab Sample ID: 890-3554-2

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			4.97 g	5 mL	40625	11/29/22 16:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40842	12/02/22 15:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40913	12/02/22 16:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			40380	11/28/22 08:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	40352	11/24/22 11:08	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40348	11/24/22 19:12	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	40386	11/28/22 08:56	CH	EET MID
Soluble	Analysis	300.0		1			40550	11/29/22 12:50	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Ross Draw 2531

Job ID: 890-3554-1
SDG: 03E1558137

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3554-1	PH01	Solid	11/22/22 11:25	11/22/22 15:00	0.5
890-3554-2	PH01A	Solid	11/22/22 11:30	11/22/22 15:00	1

Released to Imaging: 3/13/2023 2:45:13 PM
Received by OCD: 12/9/2022 12:38:21 PM

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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

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:	Ross Draw 2531	Turn Around	
Project Number:	03E1558137	☑ Routine ☐ Rush	
Project Location:	32.01942,-103.94261	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:	TWM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	22.0
Total Containers:		Corrected Temperature:	21.8

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
PH01	S	11/22/2022	11:25	0.5'	Grab/	1		x	x	x
PH01A	S	11/22/2022	11:30	1'	Grab/	1		x	x	x

Parameters

890-3554 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: NAPP2226646920
Cost Center: 1056651001
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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11.22.22 1530	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-1042 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-3554-1
Address: 1211 W Florida Ave ,	Due Date Requested: 11/30/2022			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: ROSS DRAW 2531	Project #: 89000093			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O - AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8016MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
PH01 (890-3554-1)	11/22/22	11 25 Mountain		Solid			X	X	X	X	X	1	
PH01A (890-3554-2)	11/22/22	11 30 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by: Clue	Date/Time:	Company	Received by: Kramer	Date/Time: 11/23 1134	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Received by OCD: 12/9/2022 12:38:21 PM
Released to Imaging: 3/13/2023 2:45:13 PM
12/2/2022

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3554-1
SDG Number: 03E1558137

Login Number: 3554
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3554-1
SDG Number: 03E1558137

Login Number: 3554
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 11/23/22 11:47 AM

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

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Green, Garrett J
To: Tacoma Morrissey
Subject: FW: XTO - Sampling Notification (Week of 11/21/22 - 11/25/22)
Date: Friday, November 18, 2022 3:38:40 PM

[**EXTERNAL EMAIL**]

From: Green, Garrett J
Sent: Friday, November 18, 2022 8:52 AM
To: 'ocd.enviro@emnrd.nm.gov' <ocd.enviro@emnrd.nm.gov>; 'Bratcher, Michael, EMNRD' <mike.bratcher@emnrd.nm.gov>; 'Hamlet, Robert, EMNRD' <Robert.Hamlet@emnrd.nm.gov>; 'Harimon, Jocelyn, EMNRD' <Jocelyn.Harimon@emnrd.nm.gov>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>
Subject: XTO - Sampling Notification (Week of 11/21/22 - 11/25/22)

All,

XTO plans to complete final sampling activities at the following sites the week of Nov 21, 2022.

- JRU 17 CTB/ nAPP2226628060
- BEU 158 / nAPP2230548752
- Ross Draw 2531 TB FIRE/ nAPP2226646920
- Remuda 100 CTB / nAPP2226346738
- West Brushy Fed 33 1H/ nAPP2228753314
- Ross Draw 3031/ nAPP2227244441

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 165809

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 165809
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2226646920 ROSS DRAW 2531 CENTRAL TANK BATTERY, thank you. This closure is approved.	3/13/2023