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	NAPP2310045769
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 32.10428 Longitude -103.83886

(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 25 Brushy Draw CTB	Site Type Central Tank Battery
Date Release Discovered 03/29/2023	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
F	25	25S	30E	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)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 80.00	Volume Recovered (bbls) 80.00
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Production water line to skim tank released fluids into impermeable lined containment. A vacuum truck recovered all fluids. A 48-hour advance liner inspection notice was sent to NMOCD District 2. Liner was visually inspected and determined not to be operating as designed. A third-party contractor has been retained for remediation activities.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2310045769
District RP	
Facility ID	
Application ID	

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 equal to or greater than 25 barrels.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by Melanie Collins to ocd.enviro@emnrd.nm.gov, Mike Bratcher, Robert Hamlet, and Jocelyn Harimon on 03/30/23 via email.

Initial Response

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

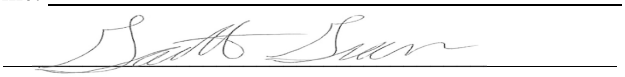
- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have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

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

NA

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

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

Printed Name: Garrett Green
Title: SSHE Coordinator
Signature: 
Date: 4/10/2023
email: garrett.green@exxonmobil.com
Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon
Date: 04/10/2023

Location:	PLU 25 Brushy Draw CTB	
Spill Date:	3/29/2023	
Area 1		
Approximate Area =	449.17	sq. ft.
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	80.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**80.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**80.00**	**bbls**

Incident ID	NAPP2310045769
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	NAPP2310045769
District RP	
Facility ID	
Application ID	

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

Printed Name: Garrett Green Title: Environmental Coordinator

Signature: Date: 6/26/2023

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

OCD Only

Received by: Shelly Wells Date: 6/27/2023

Incident ID	NAPP2310045769
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: __6/26/2023_____

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

OCD Only

Received by: Shelly Wells_____ Date: 6/27/2023_____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ENSOLUM

June 27, 2023

New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

Re: Closure Request
PLU 25 Brushy Draw CTB
Incident Number nAPP2310045769
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document assessment and soil sampling activities performed at the PLU 25 Brushy Draw Central Tank Battery (CTB) (Site). The purpose of the assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a release of produced water within lined containment at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this *Closure Request* and requesting closure for Incident Number nAPP2310045769.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit F, Section 25, Township 25 South, Range 30 East, in Eddy County, New Mexico (32.10428° N, 103.83886°W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On March 29, 2023, a production water line released approximately 80 barrels (bbls) of produced water into the lined tank battery containment. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; all 80 bbls of produced water were recovered from within the lined containment. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on March 30, 2023, and submitted a Release Notification Form C-141 (Form C-141) on April 10, 2023. The release was assigned Incident Number nAPP2310045769. A 48-hour advance notice of liner inspection was provided via email to the NMOCD. A liner integrity inspection was conducted by XTO personnel following the fluid recovery and upon inspection, the liner was determined to be insufficient.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. A soil boring was drilled 0.28 miles southwest of the Site during February 2021, for determination of regional groundwater depth. The soil boring was permitted

by the New Mexico Office of the State Engineer (NMOSE file number C-4498) and was drilled to a depth of 109 feet bgs utilizing a truck-mounted hollow-stem auger rig. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. 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 is greater than 109 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. The Well Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 550 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table 1 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 ACTIVITIES

Between June 2, 2023 and June 6, 2023, assessment and delineation activities were conducted at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Ensolum personnel advanced one borehole (BH01) via hand-auger at the location of the tear in the liner identified during the liner integrity inspection. Two discrete delineation soil samples were collected from the borehole at depths of approximately 0.5 feet and 1-foot bgs. Soil from the borehole was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips, respectively. Field screening results and observations from the borehole were documented on a lithologic/soil sampling log, which is included as Appendix B. The borehole was backfilled with the soil removed and a XTO contractor repaired the tear in the liner. Four additional delineation samples (SS01 through SS04) were collected around the lined containment at a depth of 0.5 feet bgs to confirm the lateral extent of the release. The borehole and soil sample locations are depicted on Figure 2. Photographic documentation was conducted during the Site visit. A photographic log is included in Appendix C.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following contaminants 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.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for the delineation soil samples from borehole BH01 indicated that all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for soil samples SS01 through SS04, collected around the containment, indicated all COC concentrations were compliant with the Site Closure Criteria and compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

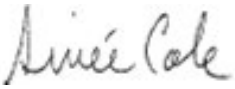
Following the failed liner integrity inspection at the Site, Ensolum personnel advanced one borehole (BH01) at the location of the tear in the liner to assess for the presence or absence of impacted soil resulting from the March 29, 2023, produced water release within lined containment. Two delineation soil samples were collected from borehole BH01, at depths of approximately 0.5 feet and 1-foot bgs. Laboratory analytical results for the delineation soil samples indicated that all COC concentrations were compliant with the Site Closure Criteria and provided lateral and vertical delineation to the most stringent Table I Closure Criteria. The release was contained laterally by the lined containment and all released fluids were recovered during initial response activities. The tear in the liner was subsequently repaired.

Based on initial response efforts, depth to groundwater greater than 100 feet bgs, and soil sample laboratory analytical results compliant with the Site Closure Criteria directly beneath the tear in the liner, XTO respectfully requests closure for Incident Number nAPP2310045769.

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

Sincerely,
Ensolum, LLC

Tacoma Morrissey
Senior Geologist



Aimee Cole
Senior Managing Scientist

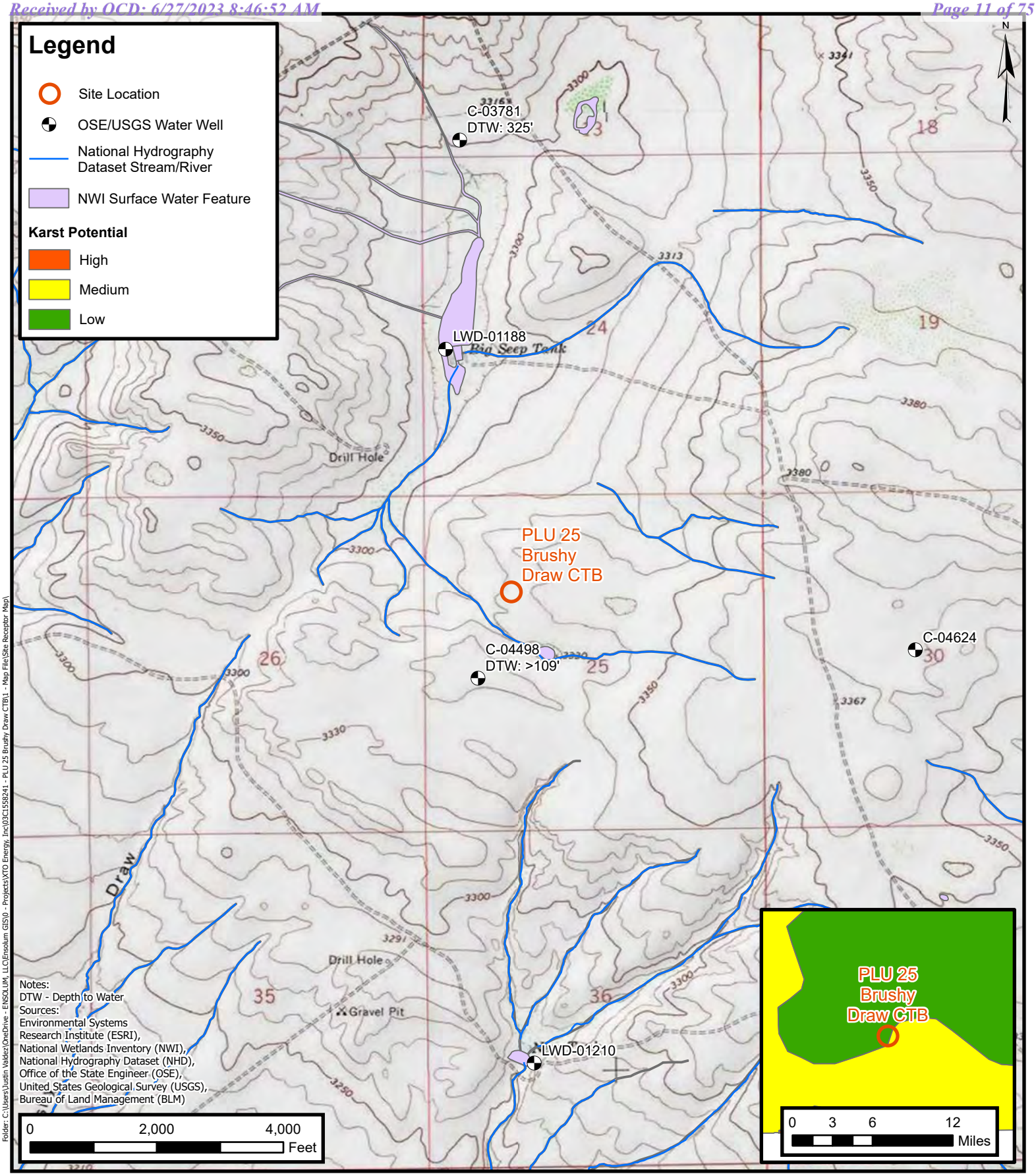
cc: Garrett Green, XTO
Shelby Pennington, XTO
Bureau of Land Management

Appendices:

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

ENSOLUM

FIGURES



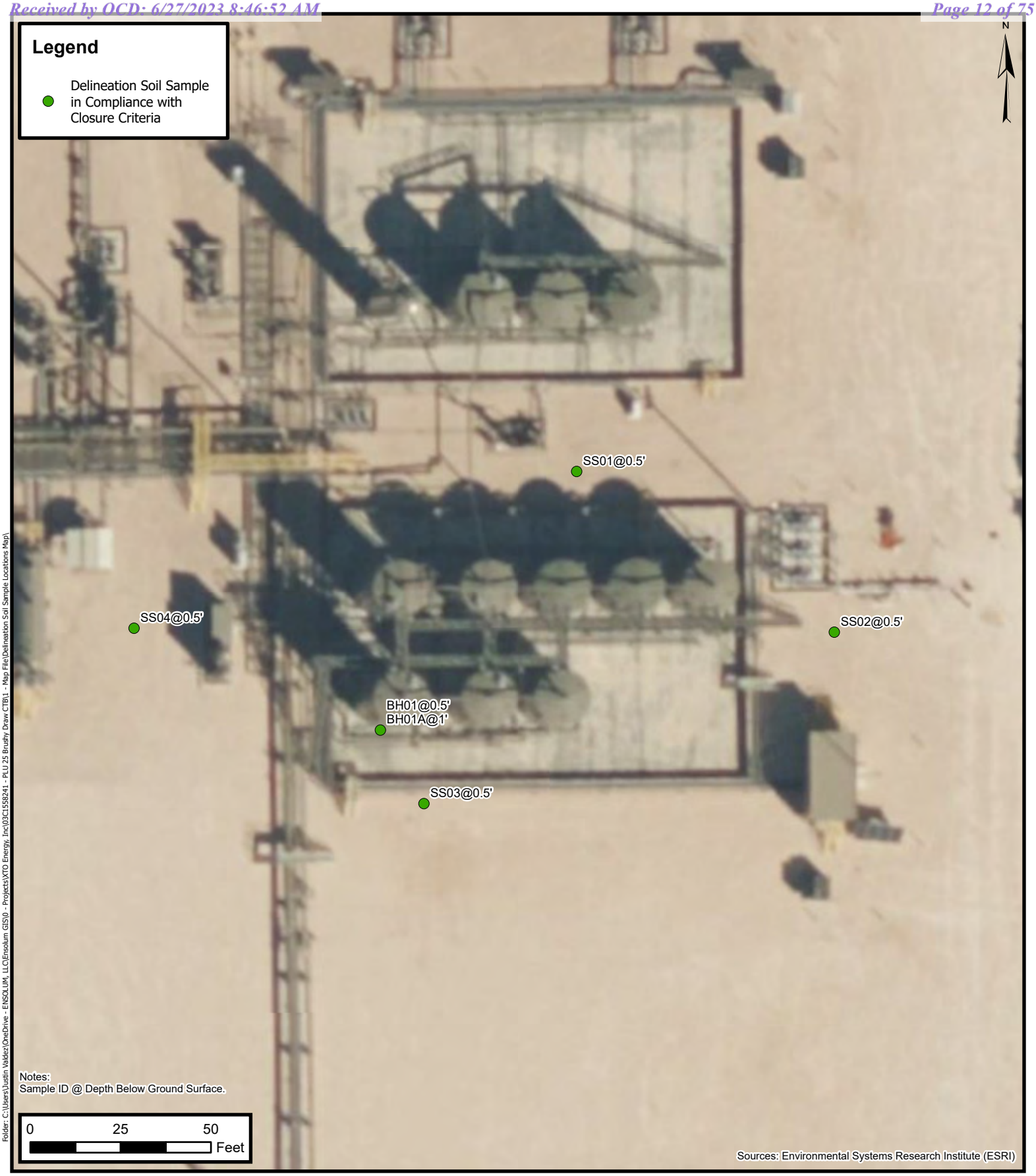
Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\XTO Energy, Inc\03C1558241 - PLU 25 Brushy Draw CTB\1 - Map File\Site Receptor Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

XTO Energy, Inc
PLU 25 Brushy Draw CTB
Incident Number: nAPP2310045769
Unit F, Sec 25, T25S, R30E
Eddy County, New Mexico

FIGURE 1



Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\XTO Energy, Inc\03C1558241 - PLU 25 Brushy Draw CTB\1 - Map File\Delineation Soil Sample Locations Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

XTO Energy, Inc
PLU 25 Brushy Draw CTB
Incident Number: nAPP2310045769
Unit F, Sec 25, T25S, R30E
Eddy County, New Mexico

FIGURE 2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 25 Brushy Draw CTB
XTO Energy, Inc.
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Delineation Soil Samples										
BH01	06/02/2023	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	666
BH01A	06/02/2023	1	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	107
SS01	06/06/2023	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	254
SS02	06/06/2023	0.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	235
SS03	06/06/2023	0.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	246
SS04	06/06/2023	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	89.9

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

~~Grey~~ text indicates soil sample removed during excavation activities

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APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4498

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°	6'	1.96"	N
	LONGITUDE	-103°	50'	26.19"	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

NW SW NE Sec. 25 T25S R30E

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)
02/24/2021	02/24/2021	temporary well material	109	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	109	±6.5	Boring- HSA	--	--	--	--
					OSE DII MAR 11 2021 PM4:26		

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-4498	POD NO. 1	TRN NO. 682528	
LOCATION 132 T25S R30E Sec 25		WELL TAG ID NO. NA	PAGE 1 OF 2

4. HYDROGEOLOGIC ~~LOG~~ OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	34	34	Caliche, tan, no odor, no stain, gravel, dry	Y ✓ N	
34	40	6	sand/ cacliche, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
40	56	16	sand, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
56	72	16	sandstone, low consolidation, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
72	79	7	sand, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
79	109	30	sandstone, low - medium consolidation, tan, no odor, m-f grained, well sorted, m	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.

OSE DII MAR 11 2021 PM4:28

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

Shane Eldridge

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 — 03/11/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

FILE NO. C-4498	POD NO. 1	TRN NO. 682528	
LOCATION 132 T25S R30E Sec25		WELL TAG ID NO. NA	PAGE 2 OF 2

John R. D Antonio, Jr., P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 682528
File Nbr: C 04498
Well File Nbr: C 04498 POD1

Mar. 11, 2021

TACOMA MORRISEY
WSP USA
3300 NORTH A STREET
BLDG 1 #222
MIDLAND, TX 79705

Greetings:

The above numbered permit was issued in your name on 12/01/2020.

The Well Record was received in this office on 03/11/2021, stating that it had been completed on 02/24/2021, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 12/01/2021.

If you have any questions, please feel free to contact us.

Sincerely,

Andrew Dennis
(575)622-6521

drywell

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM

Sample Name: BH01	Date: 6/2/2023
Site Name: PLU 25 Brushy Draw CTB	
Incident Number: NAPP2310045769	
Job Number: 03C1558241	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: CW	Method: Hand Auger
Coordinates: 32.10428, -103.83886	Hole Diameter: 4"
	Total Depth: 1

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		0-1' CALICHE, medium brown, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	526	0.0	N	BH01	0.5			
M	<168	0.0	N	BH01A	1	1		
						TD		Total Depth @ 1' bgs.

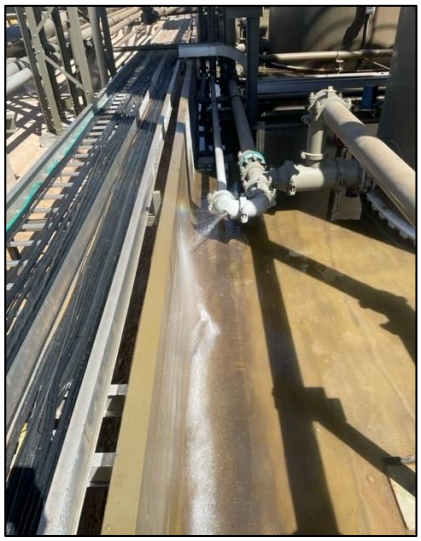
ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
PLU 25 Brushy Draw CTB
NAPP2310045769



Photograph: 1 Date: 3/29/2023
Description: Release into containment
View: North

Photograph: 2 Date: 5/25/2023
Description: Liner defect
View: South

Photograph: 3 Date: 6/2/2023
Description: Standing water at location of liner defect
View: Northwest

Photograph: 4 Date: 6/2/2023
Description: Liner defect before delineation
View: Northwest

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 6/7/2023 9:34:06 AM

JOB DESCRIPTION

PLU 25 BRUSHY DRAW CTB
SDG NUMBER 03C1558241

JOB NUMBER

890-4775-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

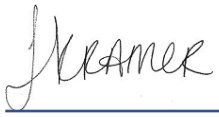
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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6/7/2023 9:34:06 AM

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

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Laboratory Job ID: 890-4775-1
SDG: 03C1558241

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
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: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

Job ID: 890-4775-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4775-1

Receipt
The samples were received on 6/2/2023 12:55 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 2.1°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH01 (890-4775-1) and BH01A (890-4775-2).

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-54717 recovered above the upper control limit for Benzene, Toluene and Ethylbenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-54717/2), (CCV 880-54717/20), (CCV 880-54717/33) and (CCV 880-54717/51).

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-54706 and analytical batch 880-54717 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-54723 and analytical batch 880-54717 was outside the control limits.

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-54853 and analytical batch 880-54839 recovered outside control limits for the following analytes: Benzene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike (MS) and/or matrix spike duplicate (MSD) recovery for preparation batch 880-54853 and analytical batch 880-54839 was outside control limits for the following analyte(s): Benzene. Results may be biased high because this analyte is a common laboratory solvent and contaminant.

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 880-54720 and analytical batch 880-54713 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: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

Client Sample ID: BH01

Date Collected: 06/02/23 10:40
Date Received: 06/02/23 12:55
Sample Depth: 0.5

Lab Sample ID: 890-4775-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+ F1	0.00198		mg/Kg		06/06/23 10:01	06/06/23 13:19	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/06/23 10:01	06/06/23 13:19	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/06/23 10:01	06/06/23 13:19	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		06/06/23 10:01	06/06/23 13:19	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/06/23 10:01	06/06/23 13:19	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/06/23 10:01	06/06/23 13:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*06/06/23 10:01*	*06/06/23 13:19*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/06/23 10:01*	*06/06/23 13:19*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			06/07/23 10:17	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			06/06/23 11:29	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		06/05/23 09:14	06/05/23 17:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/05/23 09:14	06/05/23 17:14	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/05/23 09:14	06/05/23 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*06/05/23 09:14*	*06/05/23 17:14*	*1*
o-Terphenyl	*101*		*70 - 130*	*06/05/23 09:14*	*06/05/23 17:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**666**		5.04		mg/Kg			06/06/23 01:42	1

Client Sample ID: BH01A

Date Collected: 06/02/23 10:55
Date Received: 06/02/23 12:55
Sample Depth: 1

Lab Sample ID: 890-4775-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/03/23 14:27	06/06/23 11:04	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/03/23 14:27	06/06/23 11:04	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/03/23 14:27	06/06/23 11:04	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		06/03/23 14:27	06/06/23 11:04	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/03/23 14:27	06/06/23 11:04	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/03/23 14:27	06/06/23 11:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*06/03/23 14:27*	*06/06/23 11:04*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

Client Sample ID: BH01A
Date Collected: 06/02/23 10:55
Date Received: 06/02/23 12:55
Sample Depth: 1

Lab Sample ID: 890-4775-2
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*	*06/03/23 14:27*	*06/06/23 11:04*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			06/06/23 12:06	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			06/06/23 11:29	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		06/05/23 09:14	06/05/23 17:36	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/05/23 09:14	06/05/23 17:36	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/05/23 09:14	06/05/23 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*06/05/23 09:14*	*06/05/23 17:36*	*1*
o-Terphenyl	*100*		*70 - 130*	*06/05/23 09:14*	*06/05/23 17:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**107**		4.98		mg/Kg			06/06/23 01:48	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-4765-A-26-C MS	Matrix Spike	118	100
890-4765-A-26-D MSD	Matrix Spike Duplicate	106	92
890-4775-1	BH01	77	92
890-4775-1 MS	BH01	99	104
890-4775-1 MSD	BH01	102	98
890-4775-2	BH01A	129	94
LCS 880-54706/1-A	Lab Control Sample	95	89
LCS 880-54853/1-A	Lab Control Sample	93	93
LCSD 880-54706/2-A	Lab Control Sample Dup	103	87
LCSD 880-54853/2-A	Lab Control Sample Dup	96	103
MB 880-54706/5-A	Method Blank	72	88
MB 880-54723/5-A	Method Blank	69 S1-	89
MB 880-54853/5-A	Method Blank	86	108

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4769-A-1-E MS	Matrix Spike	113	81
890-4769-A-1-F MSD	Matrix Spike Duplicate	111	79
890-4775-1	BH01	128	101
890-4775-2	BH01A	128	100
LCS 880-54720/2-A	Lab Control Sample	109	84
LCSD 880-54720/3-A	Lab Control Sample Dup	99	75
MB 880-54720/1-A	Method Blank	136 S1+	108

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-54706/5-A
Matrix: Solid
Analysis Batch: 54717

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54706

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/03/23 14:27	06/06/23 01:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/03/23 14:27	06/06/23 01:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/03/23 14:27	06/06/23 01:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/03/23 14:27	06/06/23 01:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/03/23 14:27	06/06/23 01:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/03/23 14:27	06/06/23 01:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*06/03/23 14:27*	*06/06/23 01:07*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*06/03/23 14:27*	*06/06/23 01:07*	*1*

Lab Sample ID: LCS 880-54706/1-A
Matrix: Solid
Analysis Batch: 54717

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 54706

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1121		mg/Kg		112	70 - 130		
Toluene			0.100	0.1036		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.09455		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.1848		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09234		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-54706/2-A
Matrix: Solid
Analysis Batch: 54717

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 54706

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1245		mg/Kg		125	70 - 130	10	35
Toluene			0.100	0.1102		mg/Kg		110	70 - 130	6	35
Ethylbenzene			0.100	0.1064		mg/Kg		106	70 - 130	12	35
m-Xylene & p-Xylene			0.200	0.2096		mg/Kg		105	70 - 130	13	35
o-Xylene			0.100	0.1027		mg/Kg		103	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 890-4765-A-26-C MS
Matrix: Solid
Analysis Batch: 54717

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 54706

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.101	0.1039		mg/Kg		103	70 - 130		
Toluene	<0.00201	U F1	0.101	0.07068		mg/Kg		70	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

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

Lab Sample ID: 890-4765-A-26-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 54717 — **Prep Batch: 54706**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U F1	0.101	0.05168	F1	mg/Kg		51	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.202	0.09337	F1	mg/Kg		46	70 - 130
o-Xylene	<0.00201	U F1	0.101	0.05173	F1	mg/Kg		51	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-4765-A-26-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 54717 — **Prep Batch: 54706**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0994	0.08964		mg/Kg		90	70 - 130	15	35
Toluene	<0.00201	U F1	0.0994	0.06545	F1	mg/Kg		66	70 - 130	8	35
Ethylbenzene	<0.00201	U F1	0.0994	0.05507	F1	mg/Kg		55	70 - 130	6	35
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.09606	F1	mg/Kg		48	70 - 130	3	35
o-Xylene	<0.00201	U F1	0.0994	0.05409	F1	mg/Kg		54	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: MB 880-54723/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 54717 — **Prep Batch: 54723**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/05/23 09:33	06/05/23 11:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/05/23 09:33	06/05/23 11:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/05/23 09:33	06/05/23 11:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/05/23 09:33	06/05/23 11:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/05/23 09:33	06/05/23 11:35	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/05/23 09:33	06/05/23 11:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*06/05/23 09:33*	*06/05/23 11:35*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*06/05/23 09:33*	*06/05/23 11:35*	*1*

Lab Sample ID: MB 880-54853/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 54839 — **Prep Batch: 54853**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/06/23 10:01	06/06/23 12:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/06/23 10:01	06/06/23 12:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/06/23 10:01	06/06/23 12:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/06/23 10:01	06/06/23 12:50	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

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

Lab Sample ID: MB 880-54853/5-A
Matrix: Solid
Analysis Batch: 54839

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54853

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/06/23 10:01	06/06/23 12:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/06/23 10:01	06/06/23 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*06/06/23 10:01*	*06/06/23 12:50*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*06/06/23 10:01*	*06/06/23 12:50*	*1*

Lab Sample ID: LCS 880-54853/1-A
Matrix: Solid
Analysis Batch: 54839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 54853

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1222		mg/Kg		122	70 - 130		
Toluene			0.100	0.1175		mg/Kg		117	70 - 130		
Ethylbenzene			0.100	0.1038		mg/Kg		104	70 - 130		
m-Xylene & p-Xylene			0.200	0.1949		mg/Kg		97	70 - 130		
o-Xylene			0.100	0.09380		mg/Kg		94	70 - 130		

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

Lab Sample ID: LCSD 880-54853/2-A
Matrix: Solid
Analysis Batch: 54839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 54853

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1327	*+	mg/Kg		133	70 - 130	8	35
Toluene			0.100	0.1234		mg/Kg		123	70 - 130	5	35
Ethylbenzene			0.100	0.1028		mg/Kg		103	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2038		mg/Kg		102	70 - 130	4	35
o-Xylene			0.100	0.09746		mg/Kg		97	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-4775-1 MS
Matrix: Solid
Analysis Batch: 54839

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 54853

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00198	U *+ F1	0.101	0.1276		mg/Kg		127	70 - 130		
Toluene	<0.00198	U	0.101	0.1213		mg/Kg		120	70 - 130		
Ethylbenzene	<0.00198	U	0.101	0.1074		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene	<0.00396	U	0.202	0.2184		mg/Kg		108	70 - 130		
o-Xylene	<0.00198	U	0.101	0.1062		mg/Kg		105	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

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

Lab Sample ID: 890-4775-1 MS
Matrix: Solid
Analysis Batch: 54839

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 54853

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-4775-1 MSD
Matrix: Solid
Analysis Batch: 54839

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 54853

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U *+ F1	0.100	0.1319	F1	mg/Kg		132	70 - 130	3	35
Toluene	<0.00198	U	0.100	0.1173		mg/Kg		117	70 - 130	3	35
Ethylbenzene	<0.00198	U	0.100	0.1114		mg/Kg		111	70 - 130	4	35
m-Xylene & p-Xylene	<0.00396	U	0.200	0.2187		mg/Kg		109	70 - 130	0	35
o-Xylene	<0.00198	U	0.100	0.1058		mg/Kg		106	70 - 130	0	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-54720/1-A
Matrix: Solid
Analysis Batch: 54713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54720

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		06/05/23 08:00	06/05/23 08:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/05/23 08:00	06/05/23 08:21	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/05/23 08:00	06/05/23 08:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*136*	*S1+*	*70 - 130*	*06/05/23 08:00*	*06/05/23 08:21*	*1*
o-Terphenyl	*108*		*70 - 130*	*06/05/23 08:00*	*06/05/23 08:21*	*1*

Lab Sample ID: LCS 880-54720/2-A
Matrix: Solid
Analysis Batch: 54713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 54720

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	845.6		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	885.3		mg/Kg		89	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

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

Lab Sample ID: LCSD 880-54720/3-A
Matrix: Solid
Analysis Batch: 54713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 54720

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	955.3		mg/Kg		96	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	951.7		mg/Kg		95	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Lab Sample ID: 890-4769-A-1-E MS
Matrix: Solid
Analysis Batch: 54713

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 54720

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1080		mg/Kg		108	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	957.5		mg/Kg		96	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*81*		*70 - 130*

Lab Sample ID: 890-4769-A-1-F MSD
Matrix: Solid
Analysis Batch: 54713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 54720

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1122		mg/Kg		112	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	925.7		mg/Kg		93	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*79*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-54725/1-A
Matrix: Solid
Analysis Batch: 54802

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			06/06/23 00:17	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-54725/2-A
Matrix: Solid
Analysis Batch: 54802

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	251.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-54725/3-A
Matrix: Solid
Analysis Batch: 54802

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	252.0		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-4775-2 MS
Matrix: Solid
Analysis Batch: 54802

Client Sample ID: BH01A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	107		249	341.5		mg/Kg		94	90 - 110		

Lab Sample ID: 890-4775-2 MSD
Matrix: Solid
Analysis Batch: 54802

Client Sample ID: BH01A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	107		249	341.2		mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

GC VOA

Prep Batch: 54706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4775-2	BH01A	Total/NA	Solid	5035	
MB 880-54706/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-54706/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-54706/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4765-A-26-C MS	Matrix Spike	Total/NA	Solid	5035	
890-4765-A-26-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 54717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4775-2	BH01A	Total/NA	Solid	8021B	54706
MB 880-54706/5-A	Method Blank	Total/NA	Solid	8021B	54706
MB 880-54723/5-A	Method Blank	Total/NA	Solid	8021B	54723
LCS 880-54706/1-A	Lab Control Sample	Total/NA	Solid	8021B	54706
LCSD 880-54706/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	54706
890-4765-A-26-C MS	Matrix Spike	Total/NA	Solid	8021B	54706
890-4765-A-26-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	54706

Prep Batch: 54723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-54723/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 54839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4775-1	BH01	Total/NA	Solid	8021B	54853
MB 880-54853/5-A	Method Blank	Total/NA	Solid	8021B	54853
LCS 880-54853/1-A	Lab Control Sample	Total/NA	Solid	8021B	54853
LCSD 880-54853/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	54853
890-4775-1 MS	BH01	Total/NA	Solid	8021B	54853
890-4775-1 MSD	BH01	Total/NA	Solid	8021B	54853

Prep Batch: 54853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4775-1	BH01	Total/NA	Solid	5035	
MB 880-54853/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-54853/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-54853/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4775-1 MS	BH01	Total/NA	Solid	5035	
890-4775-1 MSD	BH01	Total/NA	Solid	5035	

Analysis Batch: 54881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4775-1	BH01	Total/NA	Solid	Total BTEX	
890-4775-2	BH01A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 54713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4775-1	BH01	Total/NA	Solid	8015B NM	54720
890-4775-2	BH01A	Total/NA	Solid	8015B NM	54720
MB 880-54720/1-A	Method Blank	Total/NA	Solid	8015B NM	54720

QC Association Summary

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

GC Semi VOA (Continued)

Analysis Batch: 54713 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-54720/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	54720
LCSD 880-54720/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	54720
890-4769-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	54720
890-4769-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	54720

Prep Batch: 54720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4775-1	BH01	Total/NA	Solid	8015NM Prep	
890-4775-2	BH01A	Total/NA	Solid	8015NM Prep	
MB 880-54720/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-54720/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-54720/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4769-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4769-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 54875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4775-1	BH01	Total/NA	Solid	8015 NM	
890-4775-2	BH01A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 54725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4775-1	BH01	Soluble	Solid	DI Leach	
890-4775-2	BH01A	Soluble	Solid	DI Leach	
MB 880-54725/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-54725/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-54725/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4775-2 MS	BH01A	Soluble	Solid	DI Leach	
890-4775-2 MSD	BH01A	Soluble	Solid	DI Leach	

Analysis Batch: 54802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4775-1	BH01	Soluble	Solid	300.0	54725
890-4775-2	BH01A	Soluble	Solid	300.0	54725
MB 880-54725/1-A	Method Blank	Soluble	Solid	300.0	54725
LCS 880-54725/2-A	Lab Control Sample	Soluble	Solid	300.0	54725
LCSD 880-54725/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	54725
890-4775-2 MS	BH01A	Soluble	Solid	300.0	54725
890-4775-2 MSD	BH01A	Soluble	Solid	300.0	54725

Lab Chronicle

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

Client Sample ID: BH01

Date Collected: 06/02/23 10:40
Date Received: 06/02/23 12:55

Lab Sample ID: 890-4775-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	54853	06/06/23 10:01	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54839	06/06/23 13:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54881	06/07/23 10:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			54875	06/06/23 11:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	54720	06/05/23 09:14	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54713	06/05/23 17:14	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	54725	06/05/23 09:46	KS	EET MID
Soluble	Analysis	300.0		1			54802	06/06/23 01:42	CH	EET MID

Client Sample ID: BH01A

Date Collected: 06/02/23 10:55
Date Received: 06/02/23 12:55

Lab Sample ID: 890-4775-2

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			5.04 g	5 mL	54706	06/03/23 14:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54717	06/06/23 11:04	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54881	06/06/23 12:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			54875	06/06/23 11:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	54720	06/05/23 09:14	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54713	06/05/23 17:36	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	54725	06/05/23 09:46	KS	EET MID
Soluble	Analysis	300.0		1			54802	06/06/23 01:48	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 25 BRUSHY DRAW CTB

Job ID: 890-4775-1
SDG: 03C1558241

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4775-1	BH01	Solid	06/02/23 10:40	06/02/23 12:55	0.5
890-4775-2	BH01A	Solid	06/02/23 10:55	06/02/23 12:55	1

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.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:	PLU 25 BRUSHY DRAW CTB	Turn Around	
Project Number:	03C1558241	☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Connor Whitman	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:	T NM 03
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.3
Total Containers:		Corrected Temperature:	2.1

ANALYSIS REQUEST

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 Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)
BH01	S	6/2/23	10:40	.5'	G	1		✓	✓	✓
BH01A	S	6/2/23	10:55	1'	G	1		✓	✓	✓

890-4775 Chain of Custody

Sample Comments

Incident ID:
nAPP2310045769

Cost Center:
2191851001

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		6.2.23	2 1255		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4775-1
SDG Number: 03C1558241

Login Number: 4775
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: 890-4775-1
SDG Number: 03C1558241

Login Number: 4775
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 06/05/23 09:16 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 6/14/2023 3:18:52 PM

JOB DESCRIPTION

PLU 25 Brushy Draw CTB
SDG NUMBER 03C1558241

JOB NUMBER

890-4784-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

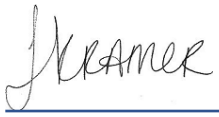
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Laboratory Job ID: 890-4784-1
SDG: 03C1558241

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
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: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Job ID: 890-4784-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4784-1

Receipt
The samples were received on 6/6/2023 1:54 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4784-1), SS02 (890-4784-2), SS03 (890-4784-3) and SS04 (890-4784-4).

GC VOA
Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-55037 and analytical batch 880-55385 recovered outside control limits for the following analytes: Benzene and Toluene. These analytes were biased high in the LCSD however, they were acceptable in the LCS and only one is required by method; therefore, the data have been reported.

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 laboratory control sample (LCS) associated with preparation batch 880-55014 and analytical batch 880-55084 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS03 (890-4784-3), (MB 880-55014/1-A), (880-29167-A-22-C MS) and (880-29167-A-22-D MSD). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Client Sample ID: SS01

Lab Sample ID: 890-4784-1

Date Collected: 06/06/23 11:50
Matrix: Solid
Date Received: 06/06/23 13:54
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198		mg/Kg		06/08/23 13:04	06/13/23 15:14	1
Toluene	<0.00198	U *+	0.00198		mg/Kg		06/08/23 13:04	06/13/23 15:14	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/08/23 13:04	06/13/23 15:14	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		06/08/23 13:04	06/13/23 15:14	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/08/23 13:04	06/13/23 15:14	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/08/23 13:04	06/13/23 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*06/08/23 13:04*	*06/13/23 15:14*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*06/08/23 13:04*	*06/13/23 15:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			06/14/23 09:58	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			06/12/23 14:43	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		06/08/23 09:17	06/10/23 02:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/08/23 09:17	06/10/23 02:21	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/08/23 09:17	06/10/23 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*06/08/23 09:17*	*06/10/23 02:21*	*1*
o-Terphenyl	*119*		*70 - 130*	*06/08/23 09:17*	*06/10/23 02:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**254**		25.1		mg/Kg			06/09/23 10:54	5

Client Sample ID: SS02

Lab Sample ID: 890-4784-2

Date Collected: 06/06/23 11:55
Matrix: Solid
Date Received: 06/06/23 13:54
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		06/08/23 13:04	06/13/23 15:34	1
Toluene	<0.00200	U *+	0.00200		mg/Kg		06/08/23 13:04	06/13/23 15:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 15:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/08/23 13:04	06/13/23 15:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 15:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/08/23 13:04	06/13/23 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*06/08/23 13:04*	*06/13/23 15:34*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Client Sample ID: SS02

Lab Sample ID: 890-4784-2
Matrix: Solid
Date Collected: 06/06/23 11:55
Date Received: 06/06/23 13:54
Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/08/23 13:04*	*06/13/23 15:34*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			06/14/23 09:58	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			06/12/23 14:43	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		06/08/23 09:17	06/10/23 02:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/08/23 09:17	06/10/23 02:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/08/23 09:17	06/10/23 02:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*110*		*70 - 130*	*06/08/23 09:17*	*06/10/23 02:43*	*1*
o-Terphenyl	*121*		*70 - 130*	*06/08/23 09:17*	*06/10/23 02:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**235**		25.1	mg/Kg			06/09/23 11:10	5

Client Sample ID: SS03

Lab Sample ID: 890-4784-3
Matrix: Solid
Date Collected: 06/06/23 12:00
Date Received: 06/06/23 13:54
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201	mg/Kg		06/08/23 13:04	06/13/23 15:55	1
Toluene	<0.00201	U *+	0.00201	mg/Kg		06/08/23 13:04	06/13/23 15:55	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/08/23 13:04	06/13/23 15:55	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/08/23 13:04	06/13/23 15:55	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/08/23 13:04	06/13/23 15:55	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/08/23 13:04	06/13/23 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*06/08/23 13:04*	*06/13/23 15:55*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/08/23 13:04*	*06/13/23 15:55*	*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			06/14/23 09:58	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			06/12/23 14:43	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Client Sample ID: SS03

Lab Sample ID: 890-4784-3

Date Collected: 06/06/23 12:00
Matrix: Solid
Date Received: 06/06/23 13:54
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *-	49.8		mg/Kg		06/08/23 09:17	06/10/23 03:04	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/08/23 09:17	06/10/23 03:04	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/08/23 09:17	06/10/23 03:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*06/08/23 09:17*	*06/10/23 03:04*	*1*
o-Terphenyl	*137*	*S1+*	*70 - 130*	*06/08/23 09:17*	*06/10/23 03:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**246**		25.0		mg/Kg			06/09/23 11:16	5

Client Sample ID: SS04

Lab Sample ID: 890-4784-4

Date Collected: 06/06/23 12:05
Matrix: Solid
Date Received: 06/06/23 13:54
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *+	0.00202		mg/Kg		06/08/23 13:04	06/13/23 16:15	1
Toluene	<0.00202	U *+	0.00202		mg/Kg		06/08/23 13:04	06/13/23 16:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/08/23 13:04	06/13/23 16:15	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		06/08/23 13:04	06/13/23 16:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/08/23 13:04	06/13/23 16:15	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		06/08/23 13:04	06/13/23 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*06/08/23 13:04*	*06/13/23 16:15*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*06/08/23 13:04*	*06/13/23 16:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			06/14/23 09:58	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			06/12/23 14:43	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		06/08/23 09:17	06/10/23 03:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/08/23 09:17	06/10/23 03:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/08/23 09:17	06/10/23 03:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*06/08/23 09:17*	*06/10/23 03:26*	*1*
o-Terphenyl	*119*		*70 - 130*	*06/08/23 09:17*	*06/10/23 03:26*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Client Sample ID: SS04
Date Collected: 06/06/23 12:05
Date Received: 06/06/23 13:54
Sample Depth: 0.5

Lab Sample ID: 890-4784-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	89.9		4.95		mg/Kg			06/09/23 11:21	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

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)
890-4781-A-1-F MS	Matrix Spike	93	92
890-4781-A-1-G MSD	Matrix Spike Duplicate	108	102
890-4784-1	SS01	86	93
890-4784-2	SS02	91	97
890-4784-3	SS03	91	102
890-4784-4	SS04	97	101
LCS 880-55037/1-A	Lab Control Sample	97	105
LCSD 880-55037/2-A	Lab Control Sample Dup	96	102
MB 880-55037/5-A	Method Blank	90	111

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)
880-29167-A-22-C MS	Matrix Spike	137 S1+	144 S1+
880-29167-A-22-D MSD	Matrix Spike Duplicate	143 S1+	147 S1+
890-4784-1	SS01	105	119
890-4784-2	SS02	110	121
890-4784-3	SS03	119	137 S1+
890-4784-4	SS04	103	119
LCS 880-55014/2-A	Lab Control Sample	89	101
LCSD 880-55014/3-A	Lab Control Sample Dup	93	108
MB 880-55014/1-A	Method Blank	0.02 S1-	0.03 S1-

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-55037/5-A
Matrix: Solid
Analysis Batch: 55385

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 55037

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/08/23 13:04	06/13/23 14:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*06/08/23 13:04*	*06/13/23 14:24*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*06/08/23 13:04*	*06/13/23 14:24*	*1*

Lab Sample ID: LCS 880-55037/1-A
Matrix: Solid
Analysis Batch: 55385

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 55037

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	0.1157		mg/Kg		116	70 - 130		
Ethylbenzene			0.100	0.1040		mg/Kg		104	70 - 130		
m-Xylene & p-Xylene			0.200	0.1933		mg/Kg		97	70 - 130		
o-Xylene			0.100	0.09140		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-55037/2-A
Matrix: Solid
Analysis Batch: 55385

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 55037

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1440	*+	mg/Kg		144	70 - 130	21	35
Toluene			0.100	0.1378	*+	mg/Kg		138	70 - 130	17	35
Ethylbenzene			0.100	0.1158		mg/Kg		116	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.2210		mg/Kg		111	70 - 130	13	35
o-Xylene			0.100	0.1050		mg/Kg		105	70 - 130	14	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-4781-A-1-F MS
Matrix: Solid
Analysis Batch: 55385

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 55037

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U *+	0.101	0.1061		mg/Kg		105	70 - 130		
Toluene	<0.00199	U *+	0.101	0.1028		mg/Kg		102	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

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

Lab Sample ID: 890-4781-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 55385 — **Prep Batch: 55037**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.101	0.07489		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1372	F1	mg/Kg		68	70 - 130
o-Xylene	<0.00199	U F1	0.101	0.06696	F1	mg/Kg		66	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: 890-4781-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 55385 — **Prep Batch: 55037**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U *+	0.100	0.1063		mg/Kg		106	70 - 130	0	35
Toluene	<0.00199	U *+	0.100	0.1059		mg/Kg		106	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.100	0.08181		mg/Kg		82	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1631		mg/Kg		81	70 - 130	17	35
o-Xylene	<0.00199	U F1	0.100	0.07958		mg/Kg		79	70 - 130	17	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-55014/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 55084 — **Prep Batch: 55014**

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		06/08/23 09:17	06/09/23 19:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/23 09:17	06/09/23 19:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/23 09:17	06/09/23 19:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*0.02*	*S1-*	*70 - 130*	*06/08/23 09:17*	*06/09/23 19:43*	*1*
o-Terphenyl	*0.03*	*S1-*	*70 - 130*	*06/08/23 09:17*	*06/09/23 19:43*	*1*

Lab Sample ID: LCS 880-55014/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 55084 — **Prep Batch: 55014**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	612.5	*-	mg/Kg		61	70 - 130
Diesel Range Organics (Over C10-C28)	1000	788.9		mg/Kg		79	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

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

Lab Sample ID: LCS 880-55014/2-A
Matrix: Solid
Analysis Batch: 55084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 55014

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: LCSD 880-55014/3-A
Matrix: Solid
Analysis Batch: 55084

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 55014

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	634.6	*-	mg/Kg		63	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	839.7		mg/Kg		84	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-29167-A-22-C MS
Matrix: Solid
Analysis Batch: 55084

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 55014

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	1000	1019		mg/Kg		102	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	1143		mg/Kg		114	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	137	S1+	70 - 130
o-Terphenyl	144	S1+	70 - 130

Lab Sample ID: 880-29167-A-22-D MSD
Matrix: Solid
Analysis Batch: 55084

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 55014

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	998	1182		mg/Kg		118	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1185		mg/Kg		119	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	143	S1+	70 - 130
o-Terphenyl	147	S1+	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-55022/1-A
Matrix: Solid
Analysis Batch: 55120

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			06/09/23 10:37	1

Lab Sample ID: LCS 880-55022/2-A
Matrix: Solid
Analysis Batch: 55120

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	248.0		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-55022/3-A
Matrix: Solid
Analysis Batch: 55120

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	250.6		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 890-4784-1 MS
Matrix: Solid
Analysis Batch: 55120

Client Sample ID: SS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	254		1250	1506		mg/Kg		100	90 - 110		

Lab Sample ID: 890-4784-1 MSD
Matrix: Solid
Analysis Batch: 55120

Client Sample ID: SS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	254		1250	1511		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

GC VOA

Prep Batch: 55037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4784-1	SS01	Total/NA	Solid	5035	
890-4784-2	SS02	Total/NA	Solid	5035	
890-4784-3	SS03	Total/NA	Solid	5035	
890-4784-4	SS04	Total/NA	Solid	5035	
MB 880-55037/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-55037/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-55037/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4781-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-4781-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 55385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4784-1	SS01	Total/NA	Solid	8021B	55037
890-4784-2	SS02	Total/NA	Solid	8021B	55037
890-4784-3	SS03	Total/NA	Solid	8021B	55037
890-4784-4	SS04	Total/NA	Solid	8021B	55037
MB 880-55037/5-A	Method Blank	Total/NA	Solid	8021B	55037
LCS 880-55037/1-A	Lab Control Sample	Total/NA	Solid	8021B	55037
LCSD 880-55037/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	55037
890-4781-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	55037
890-4781-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	55037

Analysis Batch: 55491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4784-1	SS01	Total/NA	Solid	Total BTEX	
890-4784-2	SS02	Total/NA	Solid	Total BTEX	
890-4784-3	SS03	Total/NA	Solid	Total BTEX	
890-4784-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 55014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4784-1	SS01	Total/NA	Solid	8015NM Prep	
890-4784-2	SS02	Total/NA	Solid	8015NM Prep	
890-4784-3	SS03	Total/NA	Solid	8015NM Prep	
890-4784-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-55014/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-55014/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-55014/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-29167-A-22-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-29167-A-22-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 55084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4784-1	SS01	Total/NA	Solid	8015B NM	55014
890-4784-2	SS02	Total/NA	Solid	8015B NM	55014
890-4784-3	SS03	Total/NA	Solid	8015B NM	55014
890-4784-4	SS04	Total/NA	Solid	8015B NM	55014
MB 880-55014/1-A	Method Blank	Total/NA	Solid	8015B NM	55014
LCS 880-55014/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	55014

QC Association Summary

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

GC Semi VOA (Continued)

Analysis Batch: 55084 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-55014/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	55014
880-29167-A-22-C MS	Matrix Spike	Total/NA	Solid	8015B NM	55014
880-29167-A-22-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	55014

Analysis Batch: 55341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4784-1	SS01	Total/NA	Solid	8015 NM	
890-4784-2	SS02	Total/NA	Solid	8015 NM	
890-4784-3	SS03	Total/NA	Solid	8015 NM	
890-4784-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 55022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4784-1	SS01	Soluble	Solid	DI Leach	
890-4784-2	SS02	Soluble	Solid	DI Leach	
890-4784-3	SS03	Soluble	Solid	DI Leach	
890-4784-4	SS04	Soluble	Solid	DI Leach	
MB 880-55022/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-55022/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-55022/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4784-1 MS	SS01	Soluble	Solid	DI Leach	
890-4784-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 55120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4784-1	SS01	Soluble	Solid	300.0	55022
890-4784-2	SS02	Soluble	Solid	300.0	55022
890-4784-3	SS03	Soluble	Solid	300.0	55022
890-4784-4	SS04	Soluble	Solid	300.0	55022
MB 880-55022/1-A	Method Blank	Soluble	Solid	300.0	55022
LCS 880-55022/2-A	Lab Control Sample	Soluble	Solid	300.0	55022
LCSD 880-55022/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	55022
890-4784-1 MS	SS01	Soluble	Solid	300.0	55022
890-4784-1 MSD	SS01	Soluble	Solid	300.0	55022

Lab Chronicle

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Client Sample ID: SS01

Date Collected: 06/06/23 11:50
Date Received: 06/06/23 13:54

Lab Sample ID: 890-4784-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	55037	06/08/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55385	06/13/23 15:14	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55491	06/14/23 09:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55341	06/12/23 14:43	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	55014	06/08/23 09:17	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55084	06/10/23 02:21	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		5			55120	06/09/23 10:54	CH	EET MID

Client Sample ID: SS02

Date Collected: 06/06/23 11:55
Date Received: 06/06/23 13:54

Lab Sample ID: 890-4784-2

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			5.00 g	5 mL	55037	06/08/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55385	06/13/23 15:34	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55491	06/14/23 09:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55341	06/12/23 14:43	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	55014	06/08/23 09:17	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55084	06/10/23 02:43	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		5			55120	06/09/23 11:10	CH	EET MID

Client Sample ID: SS03

Date Collected: 06/06/23 12:00
Date Received: 06/06/23 13:54

Lab Sample ID: 890-4784-3

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			4.97 g	5 mL	55037	06/08/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55385	06/13/23 15:55	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55491	06/14/23 09:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55341	06/12/23 14:43	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	55014	06/08/23 09:17	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55084	06/10/23 03:04	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		5			55120	06/09/23 11:16	CH	EET MID

Client Sample ID: SS04

Date Collected: 06/06/23 12:05
Date Received: 06/06/23 13:54

Lab Sample ID: 890-4784-4

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			4.96 g	5 mL	55037	06/08/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55385	06/13/23 16:15	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55491	06/14/23 09:58	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Client Sample ID: SS04
Date Collected: 06/06/23 12:05
Date Received: 06/06/23 13:54

Lab Sample ID: 890-4784-4
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			55341	06/12/23 14:43	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	55014	06/08/23 09:17	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55084	06/10/23 03:26	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		1			55120	06/09/23 11:21	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 25 Brushy Draw CTB

Job ID: 890-4784-1
SDG: 03C1558241

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4784-1	SS01	Solid	06/06/23 11:50	06/06/23 13:54	0.5
890-4784-2	SS02	Solid	06/06/23 11:55	06/06/23 13:54	0.5
890-4784-3	SS03	Solid	06/06/23 12:00	06/06/23 13:54	0.5
890-4784-4	SS04	Solid	06/06/23 12:05	06/06/23 13:54	0.5

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.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:	PLU 25 BRUSHY DRAW CTB	Turn Around	☑ Routine ☐ Rush
Project Number:	03C1558241	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TAM-08
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.2
Total Containers:		Corrected Temperature:	3.0

ANALYSIS REQUEST

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 Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)
SS01	S	6/6/23	1150	.5	G	1				
SS02	"	"	1155	.5	G	1				
SS03	"	"	1200	.5	G	1				
SS04	"	"	1205	.5	G	1				

890-4784 Chain of Custody

Sample Comments

Incident ID: nAPP2310045769
Cost Center: 2191851001
AFE:

CW

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			6/6/23 1334			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4784-1
SDG Number: 03C1558241

Login Number: 4784
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4784-1
SDG Number: 03C1558241

Login Number: 4784
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 06/08/23 10:12 AM

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

ENSOLUM

APPENDIX E

NMOCD Notifications

Collins, Melanie

From: Collins, Melanie
Sent: Thursday, March 30, 2023 8:30 AM
To: ocd.enviro (ocd.enviro@emnrd.nm.gov); Hamlet, Robert, EMNRD (Robert.Hamlet@emnrd.nm.gov); Bratcher, Michael, EMNRD (mike.bratcher@emnrd.nm.gov); Harimon, Jocelyn, EMNRD (Jocelyn.Harimon@emnrd.nm.gov)
Cc: Green, Garrett J; DelawareSpills /SM; Pennington, Shelby G
Subject: XTO 24-Hour Notification PLU 25 BD CTB 3-29-23

All,

This is notification of a release greater than 25 barrels that occurred yesterday, 3/29/23, at the PLU 25 Brushy Draw CTB into impermeable lined contained. GPS coordinates are listed below. Details will be provided with a form C-141.

GPS (32.18162, -103.83261)

Thank you,

Melanie Collins

XTO ENERGY

Environmental Technician
melanie.collins@exxonmobil.com
432-556-3756

Collins, Melanie

From: Foust, Bryan Jacob
Sent: Monday, April 3, 2023 11:06 AM
To: ocd.enviro@emnrd.nm.gov; Robert.Hamlet@emnrd.nm.gov; Bratcher, Michael, EMNRD
Cc: Green, Garrett J; DelawareSpills /SM
Subject: XTO - 48 hour liner inspection - PLU 25 Brushy Draw CTB - released 3/29/2023

Good morning,

This is sent as a 48-hour notification. XTO is scheduled to inspect the lined containment at the PLU 25 Brushy Draw CTB, released (3/29/23), on Wednesday April 5 2023 at 11:00am MST. A 24 hour release notification was sent out on Thursday, March 30 2023 at 8:30 AM since the release was greater than 25 barrels in volume. We have not yet received an incident number but will include that on future correspondence. Please call us with any questions or concerns.

GPS Coordinates: (32.104291, -103.839003)

Thank you,

Jake Foust
SSHE Coordinator (environmental)
432-266-2663

From: Collins, Melanie
To: ocd.enviro (ocd.enviro@emnrd.nm.gov); Hamlet, Robert, EMNRD (Robert.Hamlet@emnrd.nm.gov); Bratcher, Michael, EMNRD (mike.bratcher@emnrd.nm.gov); Harimon, Jocelyn, EMNRD (Jocelyn.Harimon@emnrd.nm.gov)
Cc: Green, Garrett J; DelawareSpills /SM; Tacoma Morrissey
Subject: XTO - Sampling Notification (Week of 5/29/23 - 6/2/23)
Date: Thursday, May 25, 2023 4:59:35 PM
Attachments: image001.png

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the sites listed below for the week of May 29, 2023.

Tuesday

- PLU BS 15H / NAB1821157574
- JRU 17 Battery / nJMW1314127699 & nAB1506430295

Wednesday

- Poker Lake Unit 78 / nAB1606239294
- PLU-CVX-JV-BS #016H / nAB1521535958

Friday

- PLU 25 BD CTB / nAPP2310045769
- JRU 17 Battery / nJMW1314127699 & nAB1506430295

Thank you,

Melanie Collins

Environmental Technician
melanie.collins@exxonmobil.com
432-556-3756

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

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

CONDITIONS

Action 233179

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 233179
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	12/1/2023