State of New Mexico
Oil Conservation Division

Incident ID	NAPP2232251876
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: _SSHE Coordinator_____

Signature: ____  ____ _____ Date: __12/28/2022_____

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

OCD Only

Received by: Jocelyn Harimon Date: 12/29/2022

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

Closure Approved by: Robert Hamlet Date: 4/5/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAPP2232251876
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 32.08152 Longitude -103.99000

(NAD 83 in decimal degrees to 5 decimal places)

Site Name West Brushy Federal 33 #1 battery	Site Type Tank Battery
Date Release Discovered 11/09/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
N	33	25S	29E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 1.5
	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: Internal corrosion caused a pinhole on the water tank, which released fluids into lined containment. Vac truck was dispatched and recovered all freestanding fluids. Released fluid amounts were determined by tank gauges. No visible defects to liner were observed, however, XTO plans to delineate to determine extent and scope of release. A third-party contractor has been retained for remediation purposes.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2232251876
District RP	
Facility ID	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

- ☒ 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: 11/18/2022

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

OCD Only

Received by: Jocelyn Harimon Date: 11/18/2022

Incident ID	NAPP2232251876
District RP	
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Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2232251876
District RP	
Facility ID	
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Printed Name: _ Garrett Green_____ Title: _SSHE Coordinator_____

Signature: _  _____ Date: __12/28/2022_____

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

OCD Only

Received by: ___Jocelyn Harimon_____ Date: _____12/29/2022__

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2232251876
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Closure

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☒ 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

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Printed Name: _ Garrett Green_____ Title: _SSHE Coordinator_____

Signature: ____  ____ _____ Date: __12/28/2022_____

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

OCD Only

Received by: _____Jocelyn Harimon_____ Date: ___12/29/2022___

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

__

ENSOLUM

December 28, 2022

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

Re: Closure Request
West Brushy Fed 33 1H & West Brushy Draw 33 #1 Battery
Incident Numbers NAPP2228753314 & NAPP2232251876
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document site assessment, delineation, and soil sampling activities at the West Brushy Fed 33 1H and West Brushy Federal 33 #1 battery, which is co-located and collectively referred to as the "Site." The purpose of the soil sampling activities was to assess for the presence or absence of impacts to soil following two releases of produced water to a lined impermeable containment. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this *Closure Request*, describing activities that have occurred and requesting no further action for Incident Numbers NAPP2228753314 and NAPP2232251876.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit N, Section 33, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.08042°N, 103.99242°W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On October 1, 2022, due to corrosion on a water tank 67 barrels (bbls) of produced water were released into the impermeable containment area. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; 0.25 bbls of released fluids were recovered. The release volume was estimated using tank gauge data. XTO reported the release immediately to New Mexico Oil Division (NMOCD) via email on October 3, 2022. A 48-hour liner inspection notification was submitted to the NMOCD and no visible defects to the liner were observed. XTO submitted a Release Notification Form C-141 (Form C-141) on October 14, 2022 and the release was assigned Incident Number NAPP2228753314.

On November 9, 2022, internal corrosion caused a pinhole on the water tank releasing 20 bbls of produced water into the impermeable containment. Approximately 1.5 bbls were recovered with a vacuum truck. XTO reported the release to NMOCD and submitted a Form C-141 on November 18, 2022. The release was assigned Incident Number NAPP2232251876. No liner inspection was conducted.

Because the entire contents of the releases were not recovered from the secondary containment, XTO proceeded with soil sampling to confirm the absence of soil impacts.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to 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 greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. On October 12, 2020, a soil boring (C-04473), permitted through the New Mexico Office of the State Engineer (NMOSE), was advanced on the well pad west of the Site. Soil boring C-04473 was drilled to a depth of 110 feet bgs. A field geologist logged and described soils continuously. Groundwater was not encountered during drilling activites, confirming that depth to groundwater beneath the Site is more than 100 feet bgs. The soil boring was plugged following the applicable NMOSE plugging and abandonment procedures. The soil boring used to determine depth to groundwater is depicted on Figure 1 and the Well Record is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a potential emergent wetland, located approximately 585 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet from a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). 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

On November 22, 2022, site assesment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four samples (SS01 through SS04) were collected around the lined containment from a depth of 0.5 feet bgs. Ensolum personnel advanced one borehole (BH01) via hand-auger at an accessible location. Two discrete delineation soil samples (BH01 and BH01A) were collected from the borehole at depths of approximately 0.5 feet and 1 foot bgs. Soil from the delineation samples 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 soil removed and the tear in the liner was repaired. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation 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 chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Soil samples delivered to the laboratory the same day they are collected may not have equilibrated to the 6 degrees Celcius required for shipment and long term storage, but are considered to have been received in acceptable condition.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all delineation soil samples indicated that COC concentrations are compliant with the Closure Criteria and the strictest Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included in Appendix D.

CLOSURE REQUEST

Site assessment and delineation activities were conducted at the Site to address two releases of produced water. Laboratory analytical results for delineation soil samples indicated all COCs concentrations were compliant with the Site Closure Criteria and the most stringent Closure Criteria. Based on the soil sample analytical results, no further remediation was required. As such, XTO respectfully requests closure for Incident Number NAPP2228753314 and NAPP2232251876. NMOCD notifications and correspondence is included in Appendix E.

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

Sincerely,
Ensolum, LLC

Anita Thapalia, P.G.
Project Geologist

Ashley L. Ager, P.G.
Principal

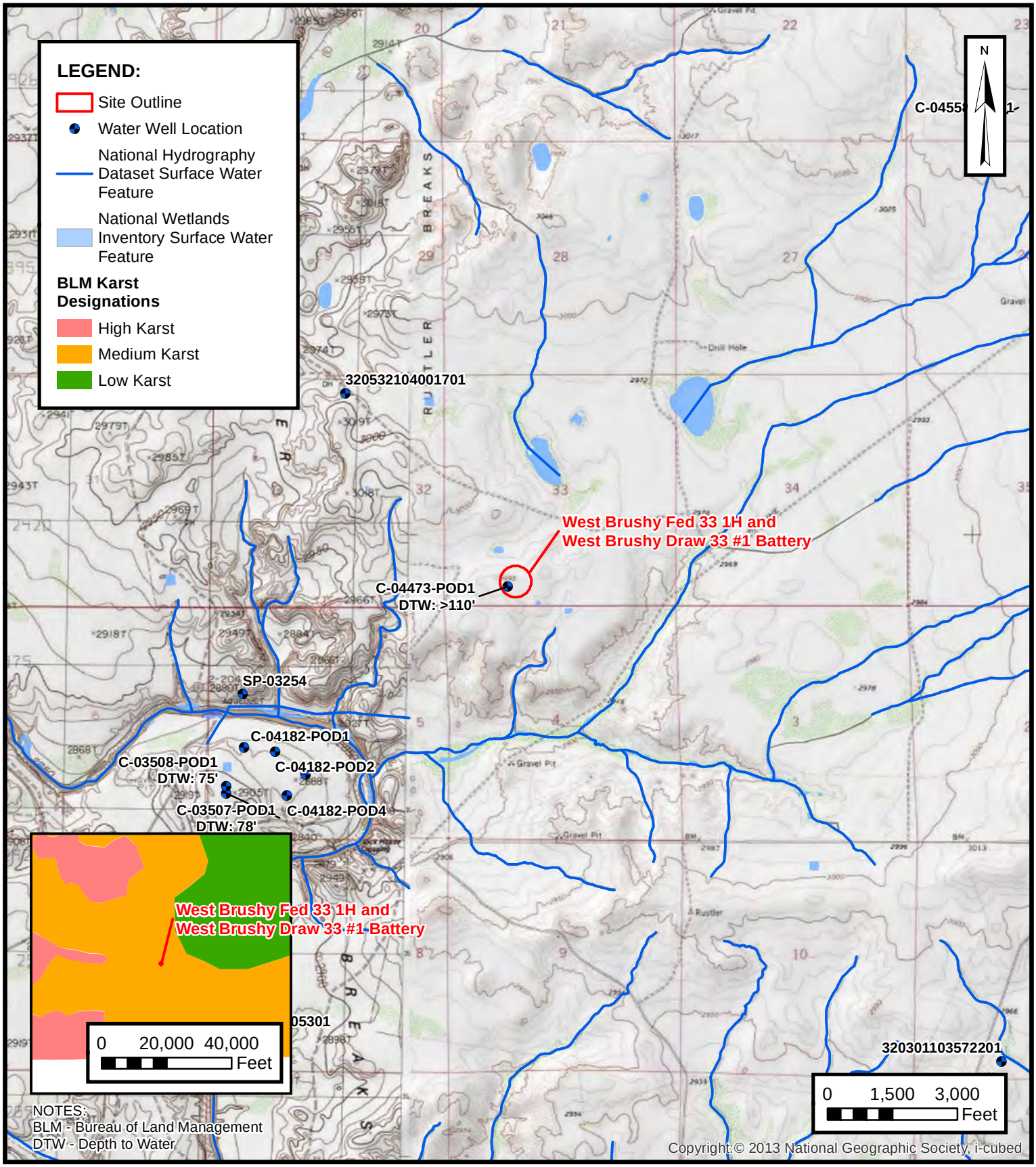
cc: Garrett Green, XTO
Shelby Pennington, XTO
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
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



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SITE RECEPTOR MAP

XTO ENERGY, INC
WEST BRUSHY FED 33 1H &
WEST BRUSHY DRAW 33 #1 BATTERY
Incident Numbers NAPP2228753314 & NAPP2232251876
Unit N, Sec 33, T25S, R29E
Eddy County, New Mexico

FIGURE

1

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
WEST BRUSHY FED 33 1H &
WEST BRUSHY DRAW 33 #1 BATTERY
Incident Numbers NAPP2228753314 & NAPP2232251876
Unit N, Sec 33, T25S, R29E
Eddy County, New Mexico

FIGURE
2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
West Brushy Fed 33 1H & West Brushy Draw 33 #1 Battery
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	11/22/2022	0.5'	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	75.6
BH01A	11/22/2022	1'	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	288
SS01	11/22/2022	0.5'	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	291
SS02	11/22/2022	0.5'	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	24.2
SS03	11/22/2022	0.5'	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	260
SS04	11/22/2022	0.5'	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	255

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

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APPENDIX A

Referenced Well Records

2020 OCT 27 PM 1:08

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-4473

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°	4'	48.72"	N
	LONGITUDE	-103°	59'	35.46"	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

SW SE SW Sec. 33 T25S R29E

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)
10/12/20	10/12/20	temporary well material	110	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	25	±8.5	Boring- HSA	--	--	--	--
25	55	±4.5	Boring- Air Rotary	--	--	--	--

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-4473	POD NO. 1	TRN NO. 677406	
LOCATION 433 T25S R29E Sec 33		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	1	30	Clayey Sand, Medium , poorly-graded with silt, no plasticity, Light Brown	Y ✓ N	
1	17	15	Caliche, Consolidated, very silty, Off White-Pink	Y ✓ N	
17	25	8	Sandstone, with gravel, well-graded, coarse to fine-grained ,Brown	Y ✓ N	
25	30	5	Mudstone, cohesive, moderately consolidated, Redish-Brown	Y ✓ N	
30	55	25	Sandstone, mod. consolidated, very fined grained,poorly-graded, Red Brown	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

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 LTE on-site geologist.

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 — 10/26/2020

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

FILE NO. C-4473	POD NO. 1	TRN NO. 677406	
LOCATION 433 T25S R29E Sec33		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: 677406
File Nbr: C 04473
Well File Nbr: C 04473 POD1

Nov. 18, 2020

TACOMA MORRISSEY
LT ENVIRONMENTAL INC
508 WEST STEVENS
CARLSBAD, NM 88220

Greetings:

The above numbered permit was issued in your name on 09/02/2020.

The Well Record was received in this office on 10/29/2020, stating that it had been completed on 10/12/2020, 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 09/02/2021.

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

Sincerely,

Andrew Dennis
(575)622-6521

drywell

2020-10-26_C-4473POD1_OSE_Well Record and Log-wb-forsign

Final Audit Report 2020-10-27

Created:	2020-10-27
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA_fnD1AtNBjHgBc1H0ehlMQdoVvHLvFdG

"2020-10-26_C-4473POD1_OSE_Well Record and Log-wb-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2020-10-27 - 3:12:46 PM GMT- IP address: 69.21.248.123

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2020-10-27 - 3:13:15 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2020-10-27 - 3:13:54 PM GMT- IP address: 74.50.153.115

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2020-10-27 - 3:17:09 PM GMT - Time Source: server- IP address: 74.50.153.115

Agreement completed.
2020-10-27 - 3:17:09 PM GMT

Adobe Sign

National Water Information System: Web Interface

USGS Water Resources

Data Category: Site Information | Geographic Area: United States | GO

Click to hideNews Bulletins

- **ALERT!** USGS will be performing an upgrade to their network on **Thursday, November 17, 2022, starting at 10:00pm EST**. During the maintenance period, the Water Data for the Nation web portal and water services will be accessible; however, delivery of the most recent time-series data and WaterAlert notifications will be disrupted. The maintenance period is not expected to exceed 4 hours, after which the backlog of time-series data will be processed and delivered.
- Water Data for the Nation Blog

USGS 320532104001701 25S.29E.32.21111

Available data for this site: SUMMARY OF ALL AVAILABLE DATA | GO

Well Site

DESCRIPTION:

Latitude 32°05'32", Longitude 104°00'17" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 128 feet
Land surface altitude: 2,988 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1949-03-11	1992-11-03	8

Revisions	Unavailable (site:0) (timeseries:0)

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

---

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

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=320532104001701

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2022-11-15 17:29:13 EST
0.29 0.28 caww01

National Water Information System: Web Interface

USGS Water Resources

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

Click to hideNews Bulletins

- **ALERT!** USGS will be performing an upgrade to their network on **Thursday, November 17, 2022, starting at 10:00pm EST**. During the maintenance period, the Water Data for the Nation web portal and water services will be accessible; however, delivery of the most recent time-series data and WaterAlert notifications will be disrupted. The maintenance period is not expected to exceed 4 hours, after which the backlog of time-series data will be processed and delivered.
- Water Data for the Nation Blog

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320532104001701

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320532104001701 25S.29E.32.21111

Eddy County, New Mexico
Latitude 32°05'32", Longitude 104°00'17" NAD27
Land-surface elevation 2,988 feet above NAVD88
The depth of the well is 128 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1949-03-11		D	62610		2871.10	NGVD29	1	Z			A
1949-03-11		D	62611		2872.66	NAVD88	1	Z			A
1949-03-11		D	72019	115.34			1	Z			A
1958-08-19		D	62610		2887.81	NGVD29	1	Z			A
1958-08-19		D	62611		2889.37	NAVD88	1	Z			A
1958-08-19		D	72019	98.63			1	Z			A
1959-03-24		D	62610		2887.84	NGVD29	1	Z			A
1959-03-24		D	62611		2889.40	NAVD88	1	Z			A
1959-03-24		D	72019	98.60			1	Z			A
1978-01-13		D	62610		2891.21	NGVD29	1	Z			A
1978-01-13		D	62611		2892.77	NAVD88	1	Z			A
1978-01-13		D	72019	95.23			1	Z			A
1983-02-01		D	62610		2890.81	NGVD29	1	Z			A
1983-02-01		D	62611		2892.37	NAVD88	1	Z			A
1983-02-01		D	72019	95.63			1	Z			A
1987-10-14		D	62610		2889.75	NGVD29	1	Z			A
1987-10-14		D	62611		2891.31	NAVD88	1	Z			A
1987-10-14		D	72019	96.69			1	Z			A
1988-04-06		D	62610		2889.51	NGVD29	1	Z			A
1988-04-06		D	62611		2891.07	NAVD88	1	Z			A
1988-04-06		D	72019	96.93			1	Z			A
1992-11-03		D	62610		2888.31	NGVD29	1	S			A
1992-11-03		D	62611		2889.87	NAVD88	1	S			A
1992-11-03		D	72019	98.13			1	S			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet

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

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

U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2022-11-15 17:29:21 EST
0.29 0.25 nadww01

ENSOLUM

APPENDIX B

Photographic Log

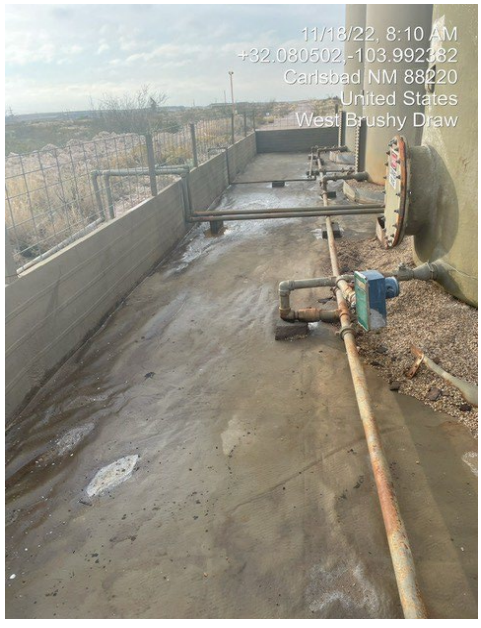
ENSOLUM

Photographic Log

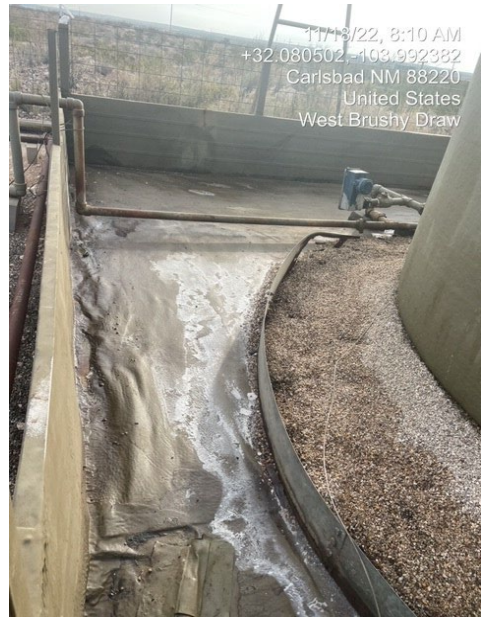
XTO Energy, Inc.

West Brushy Fed 33 1H &
West Brushy Draw 33 #1 Battery

Incident Numbers NAPP2228753314 &
NAPP2232251876



Photograph: 1 Date: 11/18/2022
Description: Photo of initial assessment activities.
View: South



Photograph: 2 Date: 11/18/2022
Description: Photo of initial assessment activities.
View: East

Photograph: 3 Date: 11/22/2022
Description: Photo of linear delineation activities.
View: South

Photograph: 4 Date: 11/22/2022
Description: Photo of linear delineation activities.
View: N/A

ENSOLUM

APPENDIX C

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 12/2/2022 3:58:07 PM

JOB DESCRIPTION

West Brushy Fed 331H
SDG NUMBER 03E1558141

JOB NUMBER

890-3549-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

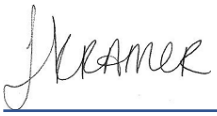
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
12/2/2022 3:58:07 PM

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

Client: Ensolum
Project/Site: West Brushy Fed 331H

Laboratory Job ID: 890-3549-1
SDG: 03E1558141

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-3549-1
Project/Site: West Brushy Fed 331H SDG: 03E1558141

Qualifiers

GC VOA

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

GC Semi VOA

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
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: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Job ID: 890-3549-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3549-1

Receipt
The samples were received on 11/22/2022 1:47 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH01 (890-3549-1), BH01A (890-3549-2), SS01 (890-3549-3), SS02 (890-3549-4), SS03 (890-3549-5) and SS04 (890-3549-6).

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

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-40543 and analytical batch 880-40551 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.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-40386 and analytical batch 880-40550 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.The associated samples are: SS03 (890-3549-5), SS04 (890-3549-6), (880-21878-A-1-B), (880-21878-A-1-C MS) and (880-21878-A-1-D MSD).

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: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Client Sample ID: BH01

Date Collected: 11/22/22 10:30
Date Received: 11/22/22 13:47
Sample Depth: 0.5'

Lab Sample ID: 890-3549-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 12:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 12:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 12:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/29/22 16:02	12/02/22 12:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 12:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/29/22 16:02	12/02/22 12:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*11/29/22 16:02*	*12/02/22 12:11*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*11/29/22 16:02*	*12/02/22 12:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/30/22 15:50	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0		mg/Kg		11/29/22 08:34	11/29/22 23:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/29/22 08:34	11/29/22 23:58	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/29/22 08:34	11/29/22 23:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*11/29/22 08:34*	*11/29/22 23:58*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*11/29/22 08:34*	*11/29/22 23:58*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**75.6**		4.96		mg/Kg			11/28/22 23:08	1

Client Sample ID: BH01A

Date Collected: 11/22/22 11:10
Date Received: 11/22/22 13:47
Sample Depth: 1'

Lab Sample ID: 890-3549-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 12:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 12:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 12:37	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/29/22 16:02	12/02/22 12:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 12:37	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/29/22 16:02	12/02/22 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*11/29/22 16:02*	*12/02/22 12:37*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Client Sample ID: BH01A

Date Collected: 11/22/22 11:10
Date Received: 11/22/22 13:47
Sample Depth: 1'

Lab Sample ID: 890-3549-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/29/22 16:02*	*12/02/22 12:37*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/30/22 15:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0	mg/Kg		11/29/22 08:34	11/30/22 00:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/29/22 08:34	11/30/22 00:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/29/22 08:34	11/30/22 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*11/29/22 08:34*	*11/30/22 00:23*	*1*
o-Terphenyl	*102*		*70 - 130*	*11/29/22 08:34*	*11/30/22 00:23*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**288**		5.05	mg/Kg			11/28/22 23:15	1

Client Sample ID: SS01

Date Collected: 11/22/22 11:15
Date Received: 11/22/22 13:47
Sample Depth: 0.5'

Lab Sample ID: 890-3549-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/29/22 16:02	12/02/22 13:04	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/29/22 16:02	12/02/22 13:04	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/29/22 16:02	12/02/22 13:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/29/22 16:02	12/02/22 13:04	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/29/22 16:02	12/02/22 13:04	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/29/22 16:02	12/02/22 13:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*11/29/22 16:02*	*12/02/22 13:04*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*11/29/22 16:02*	*12/02/22 13:04*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/02/22 16:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/30/22 15:50	1

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Client Sample Results

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Client Sample ID: SS01

Lab Sample ID: 890-3549-3
Matrix: Solid
Date Collected: 11/22/22 11:15
Date Received: 11/22/22 13:47
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	<49.9	U *-	49.9		mg/Kg		11/29/22 08:34	11/30/22 00:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/29/22 08:34	11/30/22 00:47	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/29/22 08:34	11/30/22 00:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*11/29/22 08:34*	*11/30/22 00:47*	*1*
o-Terphenyl	*99*		*70 - 130*	*11/29/22 08:34*	*11/30/22 00:47*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**291**		24.9		mg/Kg			11/28/22 23:22	5

Client Sample ID: SS02

Lab Sample ID: 890-3549-4
Matrix: Solid
Date Collected: 11/22/22 11:30
Date Received: 11/22/22 13:47
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/29/22 16:02	12/02/22 13:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/29/22 16:02	12/02/22 13:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/29/22 16:02	12/02/22 13:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/29/22 16:02	12/02/22 13:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/29/22 16:02	12/02/22 13:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/29/22 16:02	12/02/22 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*11/29/22 16:02*	*12/02/22 13:30*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/29/22 16:02*	*12/02/22 13:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/02/22 16:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/30/22 15:50	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0		mg/Kg		11/29/22 08:34	11/30/22 01:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/29/22 08:34	11/30/22 01:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/29/22 08:34	11/30/22 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*23*	*S1-*	*70 - 130*	*11/29/22 08:34*	*11/30/22 01:13*	*1*
o-Terphenyl	*18*	*S1-*	*70 - 130*	*11/29/22 08:34*	*11/30/22 01:13*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Client Sample ID: SS02

Lab Sample ID: 890-3549-4
Matrix: Solid
Date Collected: 11/22/22 11:30
Date Received: 11/22/22 13:47
Sample Depth: 0.5'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.2		5.00		mg/Kg			11/28/22 23:28	1

Client Sample ID: SS03

Lab Sample ID: 890-3549-5
Matrix: Solid
Date Collected: 11/22/22 11:45
Date Received: 11/22/22 13:47
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 13:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 13:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/29/22 16:02	12/02/22 13:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 13:56	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/29/22 16:02	12/02/22 13:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/29/22 16:02*	*12/02/22 13:56*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/29/22 16:02*	*12/02/22 13:56*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/30/22 15:50	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		11/29/22 08:34	11/30/22 01:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/29/22 08:34	11/30/22 01:37	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/29/22 08:34	11/30/22 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*11/29/22 08:34*	*11/30/22 01:37*	*1*
o-Terphenyl	*144*	*S1+*	*70 - 130*	*11/29/22 08:34*	*11/30/22 01:37*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	260		24.9		mg/Kg			11/29/22 10:57	5

Client Sample Results

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Client Sample ID: SS04

Date Collected: 11/22/22 12:00
Date Received: 11/22/22 13:47
Sample Depth: 0.5'

Lab Sample ID: 890-3549-6

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 14:22	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 14:22	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 14:22	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/29/22 16:02	12/02/22 14:22	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/29/22 16:02	12/02/22 14:22	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/29/22 16:02	12/02/22 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*11/29/22 16:02*	*12/02/22 14:22*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/29/22 16:02*	*12/02/22 14:22*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/30/22 15:50	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0		mg/Kg		11/29/22 08:34	11/30/22 02:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/29/22 08:34	11/30/22 02:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/29/22 08:34	11/30/22 02:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*54*	*S1-*	*70 - 130*	*11/29/22 08:34*	*11/30/22 02:02*	*1*
o-Terphenyl	*54*	*S1-*	*70 - 130*	*11/29/22 08:34*	*11/30/22 02:02*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**255**		24.8		mg/Kg			11/29/22 11:05	5

Surrogate Summary

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

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)
890-3549-1	BH01	105	95
890-3549-1 MS	BH01	114	102
890-3549-1 MSD	BH01	104	101
890-3549-2	BH01A	101	101
890-3549-3	SS01	105	87
890-3549-4	SS02	121	99
890-3549-5	SS03	110	94
890-3549-6	SS04	115	94
LCS 880-40625/1-A	Lab Control Sample	105	100
LCSD 880-40625/2-A	Lab Control Sample Dup	104	97
MB 880-40625/5-A	Method Blank	68 S1-	94

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-21910-A-1-C MS	Matrix Spike	106	119
880-21910-A-1-D MSD	Matrix Spike Duplicate	117	120
890-3549-1	BH01	116	131 S1+
890-3549-2	BH01A	103	102
890-3549-3	SS01	102	99
890-3549-4	SS02	23 S1-	18 S1-
890-3549-5	SS03	127	144 S1+
890-3549-6	SS04	54 S1-	54 S1-
LCS 880-40543/2-A	Lab Control Sample	139 S1+	155 S1+
LCSD 880-40543/3-A	Lab Control Sample Dup	131 S1+	158 S1+
MB 880-40543/1-A	Method Blank	133 S1+	171 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Method: 8021B - Volatile Organic Compounds (GC)

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

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

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

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

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

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

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

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

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

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

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

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

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

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 40625

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

QC Sample Results

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

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

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

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 40625

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

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

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

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 40625

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

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

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

Lab Sample ID: MB 880-40543/1-A
Matrix: Solid
Analysis Batch: 40551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40543

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/29/22 08:34	11/29/22 15:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/29/22 08:34	11/29/22 15:35	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/29/22 08:34	11/29/22 15:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*11/29/22 08:34*	*11/29/22 15:35*	*1*
o-Terphenyl	*171*	*S1+*	*70 - 130*	*11/29/22 08:34*	*11/29/22 15:35*	*1*

Lab Sample ID: LCS 880-40543/2-A
Matrix: Solid
Analysis Batch: 40551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40543

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	621.1	*-	mg/Kg		62	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1084		mg/Kg		108	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

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

Lab Sample ID: LCS 880-40543/2-A
Matrix: Solid
Analysis Batch: 40551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40543

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	139	S1+	70 - 130
o-Terphenyl	155	S1+	70 - 130

Lab Sample ID: LCSD 880-40543/3-A
Matrix: Solid
Analysis Batch: 40551

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40543

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	737.1		mg/Kg		74	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	1125		mg/Kg		113	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	158	S1+	70 - 130

Lab Sample ID: 880-21910-A-1-C MS
Matrix: Solid
Analysis Batch: 40551

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40543

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	999	913.0		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1231		mg/Kg		123	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: 880-21910-A-1-D MSD
Matrix: Solid
Analysis Batch: 40551

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40543

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	997	888.3		mg/Kg		86	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1240		mg/Kg		124	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	120		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40371/1-A
Matrix: Solid
Analysis Batch: 40439

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/28/22 20:08	1

Lab Sample ID: LCS 880-40371/2-A
Matrix: Solid
Analysis Batch: 40439

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	265.7		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-40371/3-A
Matrix: Solid
Analysis Batch: 40439

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	267.9		mg/Kg		107	90 - 110	1	20

Lab Sample ID: 890-3548-A-5-A MS
Matrix: Solid
Analysis Batch: 40439

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	25.5		249	282.8		mg/Kg		104	90 - 110		

Lab Sample ID: 890-3548-A-5-A MSD
Matrix: Solid
Analysis Batch: 40439

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	25.5		249	284.4		mg/Kg		104	90 - 110	1	20

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

Client Sample ID: Method Blank
Prep Type: Soluble

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

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

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

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

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	242.0		mg/Kg		97	90 - 110	0	20

QC Sample Results

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-21878-A-1-C MS
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	16700	F1	12500	33150	F1	mg/Kg		132	90 - 110

Lab Sample ID: 880-21878-A-1-D MSD
Matrix: Solid
Analysis Batch: 40550

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	16700	F1	12500	33850	F1	mg/Kg		137	90 - 110	2	20

QC Association Summary

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

GC VOA

Prep Batch: 40625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3549-1	BH01	Total/NA	Solid	5035	
890-3549-2	BH01A	Total/NA	Solid	5035	
890-3549-3	SS01	Total/NA	Solid	5035	
890-3549-4	SS02	Total/NA	Solid	5035	
890-3549-5	SS03	Total/NA	Solid	5035	
890-3549-6	SS04	Total/NA	Solid	5035	
MB 880-40625/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40625/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40625/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3549-1 MS	BH01	Total/NA	Solid	5035	
890-3549-1 MSD	BH01	Total/NA	Solid	5035	

Analysis Batch: 40842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3549-1	BH01	Total/NA	Solid	8021B	40625
890-3549-2	BH01A	Total/NA	Solid	8021B	40625
890-3549-3	SS01	Total/NA	Solid	8021B	40625
890-3549-4	SS02	Total/NA	Solid	8021B	40625
890-3549-5	SS03	Total/NA	Solid	8021B	40625
890-3549-6	SS04	Total/NA	Solid	8021B	40625
MB 880-40625/5-A	Method Blank	Total/NA	Solid	8021B	40625
LCS 880-40625/1-A	Lab Control Sample	Total/NA	Solid	8021B	40625
LCSD 880-40625/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40625
890-3549-1 MS	BH01	Total/NA	Solid	8021B	40625
890-3549-1 MSD	BH01	Total/NA	Solid	8021B	40625

Analysis Batch: 40911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3549-1	BH01	Total/NA	Solid	Total BTEX	
890-3549-2	BH01A	Total/NA	Solid	Total BTEX	
890-3549-3	SS01	Total/NA	Solid	Total BTEX	
890-3549-4	SS02	Total/NA	Solid	Total BTEX	
890-3549-5	SS03	Total/NA	Solid	Total BTEX	
890-3549-6	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 40543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3549-1	BH01	Total/NA	Solid	8015NM Prep	
890-3549-2	BH01A	Total/NA	Solid	8015NM Prep	
890-3549-3	SS01	Total/NA	Solid	8015NM Prep	
890-3549-4	SS02	Total/NA	Solid	8015NM Prep	
890-3549-5	SS03	Total/NA	Solid	8015NM Prep	
890-3549-6	SS04	Total/NA	Solid	8015NM Prep	
MB 880-40543/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-40543/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-40543/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-21910-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-21910-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

GC Semi VOA

Analysis Batch: 40551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3549-1	BH01	Total/NA	Solid	8015B NM	40543
890-3549-2	BH01A	Total/NA	Solid	8015B NM	40543
890-3549-3	SS01	Total/NA	Solid	8015B NM	40543
890-3549-4	SS02	Total/NA	Solid	8015B NM	40543
890-3549-5	SS03	Total/NA	Solid	8015B NM	40543
890-3549-6	SS04	Total/NA	Solid	8015B NM	40543
MB 880-40543/1-A	Method Blank	Total/NA	Solid	8015B NM	40543
LCS 880-40543/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	40543
LCSD 880-40543/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	40543
880-21910-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	40543
880-21910-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	40543

Analysis Batch: 40725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3549-1	BH01	Total/NA	Solid	8015 NM	
890-3549-2	BH01A	Total/NA	Solid	8015 NM	
890-3549-3	SS01	Total/NA	Solid	8015 NM	
890-3549-4	SS02	Total/NA	Solid	8015 NM	
890-3549-5	SS03	Total/NA	Solid	8015 NM	
890-3549-6	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 40371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3549-1	BH01	Soluble	Solid	DI Leach	
890-3549-2	BH01A	Soluble	Solid	DI Leach	
890-3549-3	SS01	Soluble	Solid	DI Leach	
890-3549-4	SS02	Soluble	Solid	DI Leach	
MB 880-40371/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40371/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40371/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3548-A-5-A MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3548-A-5-A MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 40386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3549-5	SS03	Soluble	Solid	DI Leach	
890-3549-6	SS04	Soluble	Solid	DI Leach	
MB 880-40386/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40386/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40386/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-21878-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-21878-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 40439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3549-1	BH01	Soluble	Solid	300.0	40371
890-3549-2	BH01A	Soluble	Solid	300.0	40371
890-3549-3	SS01	Soluble	Solid	300.0	40371
890-3549-4	SS02	Soluble	Solid	300.0	40371

QC Association Summary

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

HPLC/IC (Continued)

Analysis Batch: 40439 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-40371/1-A	Method Blank	Soluble	Solid	300.0	40371
LCS 880-40371/2-A	Lab Control Sample	Soluble	Solid	300.0	40371
LCSD 880-40371/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40371
890-3548-A-5-A MS	Matrix Spike	Soluble	Solid	300.0	40371
890-3548-A-5-A MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	40371

Analysis Batch: 40550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3549-5	SS03	Soluble	Solid	300.0	40386
890-3549-6	SS04	Soluble	Solid	300.0	40386
MB 880-40386/1-A	Method Blank	Soluble	Solid	300.0	40386
LCS 880-40386/2-A	Lab Control Sample	Soluble	Solid	300.0	40386
LCSD 880-40386/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40386
880-21878-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	40386
880-21878-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	40386

Lab Chronicle

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Client Sample ID: BH01

Date Collected: 11/22/22 10:30
Date Received: 11/22/22 13:47

Lab Sample ID: 890-3549-1
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			4.98 g	5 mL	40625	11/29/22 16:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40842	12/02/22 12:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40911	12/02/22 16:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			40725	11/30/22 15:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	40543	11/29/22 08:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40551	11/29/22 23:58	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	40371	11/28/22 08:37	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40439	11/28/22 23:08	CH	EET MID

Client Sample ID: BH01A

Date Collected: 11/22/22 11:10
Date Received: 11/22/22 13:47

Lab Sample ID: 890-3549-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	40625	11/29/22 16:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40842	12/02/22 12:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40911	12/02/22 16:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			40725	11/30/22 15:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	40543	11/29/22 08:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40551	11/30/22 00:23	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	40371	11/28/22 08:37	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40439	11/28/22 23:15	CH	EET MID

Client Sample ID: SS01

Date Collected: 11/22/22 11:15
Date Received: 11/22/22 13:47

Lab Sample ID: 890-3549-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	40625	11/29/22 16:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40842	12/02/22 13:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40911	12/02/22 16:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			40725	11/30/22 15:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	40543	11/29/22 08:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40551	11/30/22 00:47	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	40371	11/28/22 08:37	CH	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	40439	11/28/22 23:22	CH	EET MID

Client Sample ID: SS02

Date Collected: 11/22/22 11:30
Date Received: 11/22/22 13:47

Lab Sample ID: 890-3549-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	40625	11/29/22 16:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40842	12/02/22 13:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40911	12/02/22 16:23	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Client Sample ID: SS02

Lab Sample ID: 890-3549-4
Matrix: Solid
Date Collected: 11/22/22 11:30
Date Received: 11/22/22 13:47

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			40725	11/30/22 15:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	40543	11/29/22 08:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40551	11/30/22 01:13	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	40371	11/28/22 08:37	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40439	11/28/22 23:28	CH	EET MID

Client Sample ID: SS03

Lab Sample ID: 890-3549-5
Matrix: Solid
Date Collected: 11/22/22 11:45
Date Received: 11/22/22 13:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	40625	11/29/22 16:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40842	12/02/22 13:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40911	12/02/22 16:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			40725	11/30/22 15:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	40543	11/29/22 08:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40551	11/30/22 01:37	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	40386	11/28/22 08:56	CH	EET MID
Soluble	Analysis	300.0		5			40550	11/29/22 10:57	SMC	EET MID

Client Sample ID: SS04

Lab Sample ID: 890-3549-6
Matrix: Solid
Date Collected: 11/22/22 12:00
Date Received: 11/22/22 13:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	40625	11/29/22 16:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40842	12/02/22 14:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40911	12/02/22 16:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			40725	11/30/22 15:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	40543	11/29/22 08:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40551	11/30/22 02:02	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	40386	11/28/22 08:56	CH	EET MID
Soluble	Analysis	300.0		5			40550	11/29/22 11:05	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: West Brushy Fed 331H

Job ID: 890-3549-1
SDG: 03E1558141

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3549-1	BH01	Solid	11/22/22 10:30	11/22/22 13:47	0.5'
890-3549-2	BH01A	Solid	11/22/22 11:10	11/22/22 13:47	1'
890-3549-3	SS01	Solid	11/22/22 11:15	11/22/22 13:47	0.5'
890-3549-4	SS02	Solid	11/22/22 11:30	11/22/22 13:47	0.5'
890-3549-5	SS03	Solid	11/22/22 11:45	11/22/22 13:47	0.5'
890-3549-6	SS04	Solid	11/22/22 12:00	11/22/22 13:47	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 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks	Address:	3104 E Greene St
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	
Phone:	337-257-8307	Email:	

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:	West Brushy Fed 331H	Turn Around	
Project Number:	032 1954 1141	☑ Routine ☐ Rush	
Project Location:	Eddy County	Due Date:	
Sampler's Name:	Chris Brown	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:	TAM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.6	
Total Containers:		Corrected Temperature:	1.4	

ANALYSIS REQUEST

Pres. Code / Parameters: CHL, BTX, TPH

890-3549 Chain of Custody

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Sample Comments
BH01	S	11-22	1030	½	G	1	NAPP2228753314
BH01A	S	11-22	1110	1	G	1	NAPP2232251876

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	Amanda Stuff	11/22/22 1347			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

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Project Manager:		Bill to: (if different)	
Company Name:		Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	Email:		

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:		Turn Around	
Project Number:		☐ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:		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:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Pres. Code

Parameters

ANALYSIS REQUEST

CHL
BTX
TPH

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Sample Comments
SS01	S	11-22	1115	1/2	G	1	
SS02	S		1130	1/2		1	
SS03	S		1145	1/2		1	
SS04	S		1200	1/2		1	

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Amanda Stuff	11/22/22 1347			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No.: 890-1041 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-3549-1
Address: 1211 W Florida Ave,	Due Date Requested: 11/30/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #			
Project Name: West Brushy Fed 331H	Project #: 89000093			
Site	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note.
			Preservation Code:										
BH01 (890-3549-1)	11/22/22	10 30 Mountain		Solid			X	X	X	X	X	1	
BH01A (890-3549-2)	11/22/22	11 10 Mountain		Solid			X	X	X	X	X	1	
SS01 (890-3549-3)	11/22/22	11 15 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-3549-4)	11/22/22	11 30 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-3549-5)	11/22/22	11 45 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-3549-6)	11/22/22	12 00 Mountain		Solid			X	X	X	X	X	1	

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

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

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1					11/23 1134	
2	Relinquished by	Date/Time:	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time:	Company	Received by	Date/Time	Company

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

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3549-1
SDG Number: 03E1558141

Login Number: 3549
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: 890-3549-1
SDG Number: 03E1558141

Login Number: 3549
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 11/23/22 11:54 AM

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

ENSOLUM

APPENDIX D

NMOCD Notifications

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

[**EXTERNAL EMAIL**]

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

All,

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

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

Thank you,

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

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

Collins, Melanie

From: OCDOnline@state.nm.us
Sent: Friday, November 18, 2022 3:25 PM
To: Collins, Melanie
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 160139

Categories: External Sender

External Email - Think Before You Click

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

The OCD has accepted the submitted *Notification of a release* (NOR), for incident ID (n#) nAPP2232251876, with the following conditions:

- **When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.**

Please reference nAPP2232251876, on all subsequent C-141 submissions and communications regarding the remediation of this release.
NOTE: As of December 2019, NMOCD has discontinued the use of the "RP" number.
If you have any questions regarding this application, or don't know why you have received this email, please contact us.

ocd.enviro@state.nm.us

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

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 171204

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 171204
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2232251876 WEST BRUSHY 33 FED #1 BATTERY, thank you. This closure is approved.	4/5/2023