



August 12, 2025

**New Mexico Oil Conservation Division**

1220 South St. Francis Street  
Santa Fe, New Mexico 87505

**Re: Closure Request  
PLU 20 BD West Battery  
Incident Numbers nAPP2513447966  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document assessment, delineation, excavation, and soil sampling activities at the PLU 20 BD West Battery (Site). The purpose of the assessment, delineation, excavation, and soil sampling activities was to assess for the presence or absence of impacts to soil following a produced water release. Based on field observations and soil sample laboratory analytical results, XTO is submitting this *Closure Request*, describing remediation activities that have occurred and requesting no further remediation for Incident Number nAPP2513447966.

## **SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit N, Section 20, Township 25 South, Range 30 East in Eddy County, New Mexico (32.111368°, -103.907580°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On May 14, 2025, corrosion on production equipment resulted in the release of 6 barrels (bbls) of produced water. A vacuum truck was dispatched at the Site to recover free-standing fluid, and approximately 1 bbl of fluids was recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Notification of Release (NOR) and subsequently an Initial C-141 Application (C-141) on May 14, 2025. The release was assigned Incident Number nAPP2513447966.

## **SITE CHARACTERIZATION AND CLOSURE CRITERIA**

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented below and potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is a New Mexico Office of the State Engineer (NMOSE) permitted well (C-4394), located approximately 0.48 miles northwest of the Site. The soil boring was advanced on February 4, 2020, to a total depth of 110 feet bgs. No groundwater was encountered during drilling activities. The well was properly plugged and abandoned using concrete, hydrated bentonite chips, and sand. The Well Record & Log is included in Appendix A.

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The closest continuously flowing or significant watercourse is a dry wash located 380 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 (low potential karst designation area).

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 2,500 mg/kg
- Chloride: 20,000 mg/kg

## ASSESSMENT ACTIVITIES

Between June 11 and July 14, 2025, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the C-141 and visual observations. Seven discrete delineation soil samples (SS01 through SS08) were collected within and around the release extent at depths ranging from surface to 0.25 feet bgs to assess the lateral extent of the release. The delineation soil samples were field screened for volatile organic compounds (VOCs) and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was collected and a photographic log is included in Appendix B.

The delineation 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 Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following constituents of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standard Method SM4500.

Laboratory analytical results from delineation soil sample SS04, collected from within the release extent, indicated chloride and TPH concentrations exceeded the Closure Criteria. Laboratory analytical results from delineation soil samples SS01 through SS08, with the exception of SS04, indicated COC concentrations were compliant with the Closure Criteria, successfully defining the lateral extent of the release. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results, additional excavation of impacted soil appeared warranted.

## EXCAVATION ACTIVITIES

Between July 2 and July 14, 2025, Ensolum personnel returned to the Site to oversee excavation activities as indicated by delineation soil sample laboratory analytical results. Excavation activities were performed to the maximum extent practicable (MEP) utilizing a hydro-vacuum truck, heavy equipment, and transport vehicles. The excavation occurred on the well pad near production equipment and surface lines. To direct excavation activities, Ensolum personnel screened soil for VOCs and chloride as described above.

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Following the removal of impacted and waste containing soil to the MEP, 5-point composite confirmation soil samples were collected representing no more than 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Confirmation floor soil samples (FS01 through FS07) were collected from the floor of the excavation at a depth of 1-foot bgs. Confirmation sidewall soil samples (SW01 through SW03) were collected from the sidewall of the excavation at depths ranging from ground surface to 1-foot bgs. The confirmation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and confirmation soil sample locations were mapped utilizing a GPS unit, and are presented on Figure 3. The remaining area of the release could not be accessed or sampled as it is comprised of skids on horizontal separators that sit on or immediately beneath the stairs and catwalk.

The final excavation extent measured approximately 1,384 square feet. A total of approximately 60 cubic yards of impacted soil was removed during excavation activities and was properly disposed of at the Owl Landfill Services Northern Delaware Basin Facility in Jal, New Mexico. Waste manifests will be made available upon request.

## LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all confirmation floor and sidewall samples collected indicated all COCs were in compliance with Closure Criteria, successfully confirming removal of impacted soil. Confirmation soil samples FS01, FS04, FS06, FS07, and SW02 indicate waste-containing soil remains in place. Laboratory analytical results are summarized in Table 1, and the complete laboratory analytical reports are included in Appendix C.

## CLOSURE REQUEST

Soil delineation sampling, excavation activities, and confirmation sampling were conducted at the Site to address impacted soil resulting from the release. Following excavation, laboratory analytical results from delineation and confirmation sampling indicate that all COC concentrations were in compliance with the appropriate Closure Criteria.

Due to the presence of multiple horizontal separators on skids, active production equipment, and facility equipment including catwalks and stairs at the active Site, the release was remediated to the Closure Criteria for safety reasons. Approximately 840 square feet of waste-containing soil remains in place immediately adjacent to or under the active production equipment. Following Site decommissioning, an estimated 125 cubic yards of waste-containing soil will be reclaimed. The presence of the waste-containing soil present on-pad does not cause an imminent risk to human health, the environment, or groundwater. XTO will reclaim this soil reporting COC concentrations exceeding reclamation requirement but below Closure Criteria during final Site reclamation.

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. Depth to groundwater has been confirmed to be greater than 100 feet bgs within 0.5 miles of the Site and no other sensitive receptors were identified near the release extent. XTO believes the remedial actions completed are protective of human health, the environment. XTO respectfully requests no further action (NFA) for Incident Number nAPP2513447966.

XTO Energy, Inc.  
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If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or [tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com).

Sincerely,  
**Ensolum, LLC**



Ashley Holmes  
Senior Geologist



Tacoma Morrissey  
Associate Principal

cc: Colton Brown, XTO  
Kaylan Dirkx, XTO  
BLM

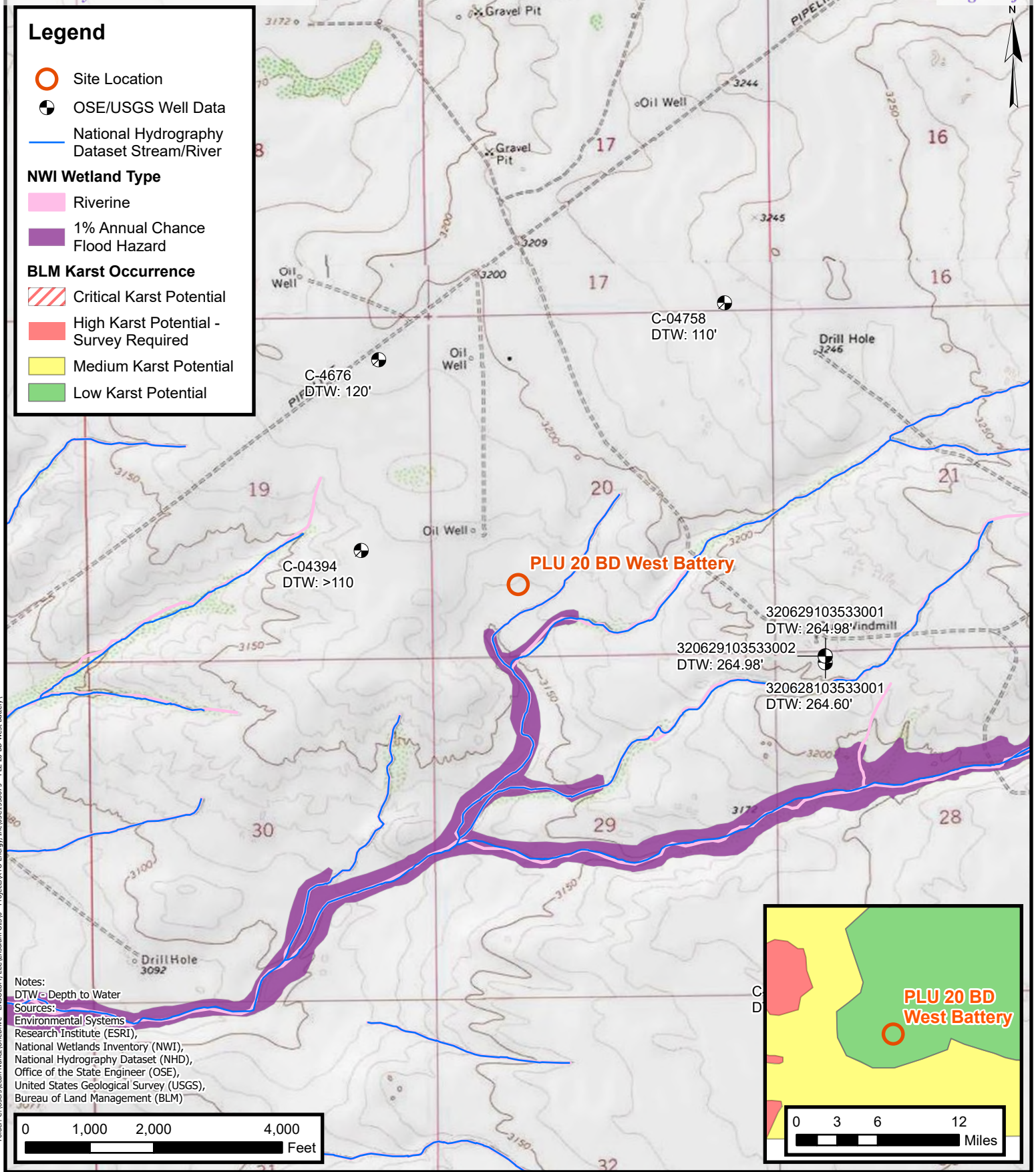
Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Confirmation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation





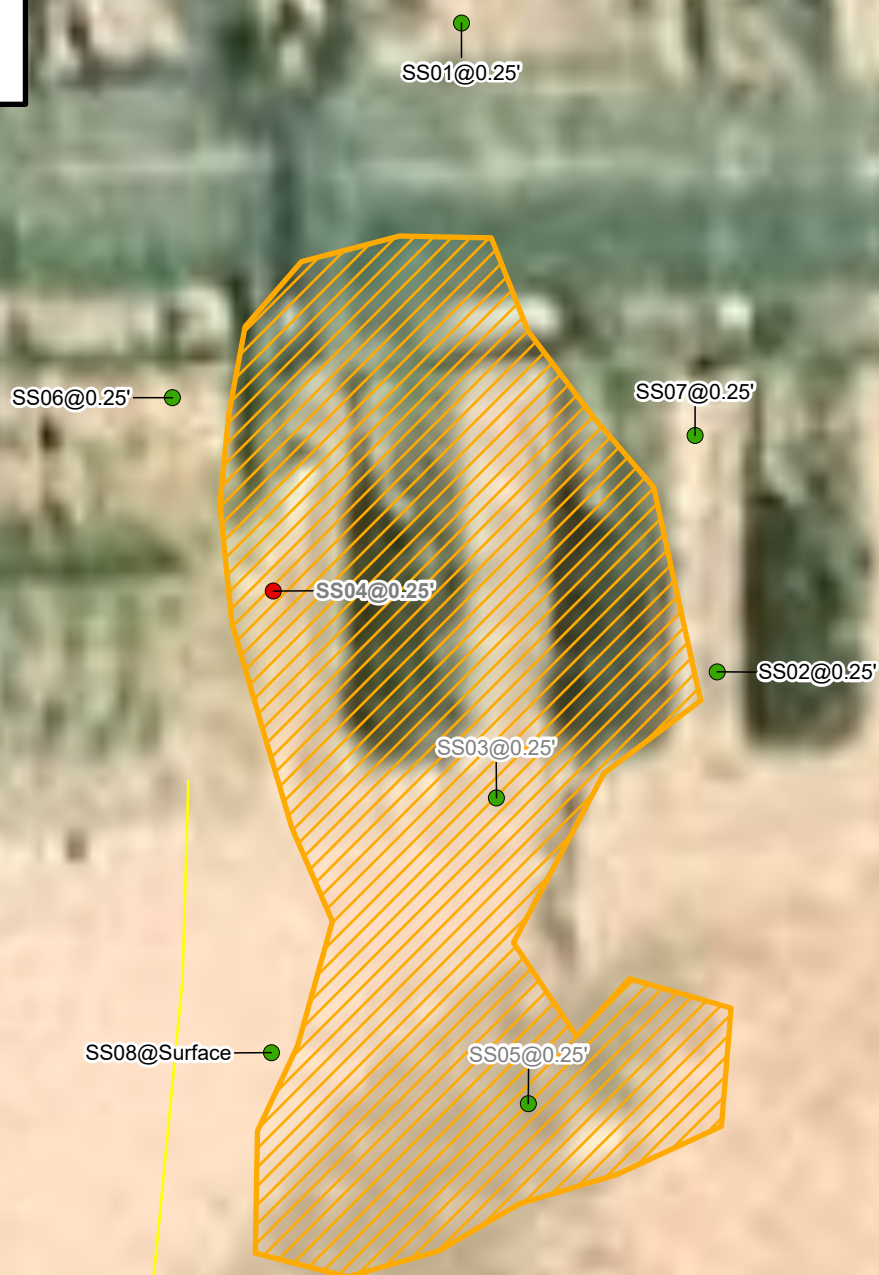
FIGURES





**Legend**

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Exceeding Closure Criteria
- Oil and Gas Utility Line
- Release Extent



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable Closure Criteria.  
 Grey text indicate soil sample was removed during excavation activities.

0 7.5 15 30  
 Feet

Sources: Environmental Systems Research Institute (ESRI)



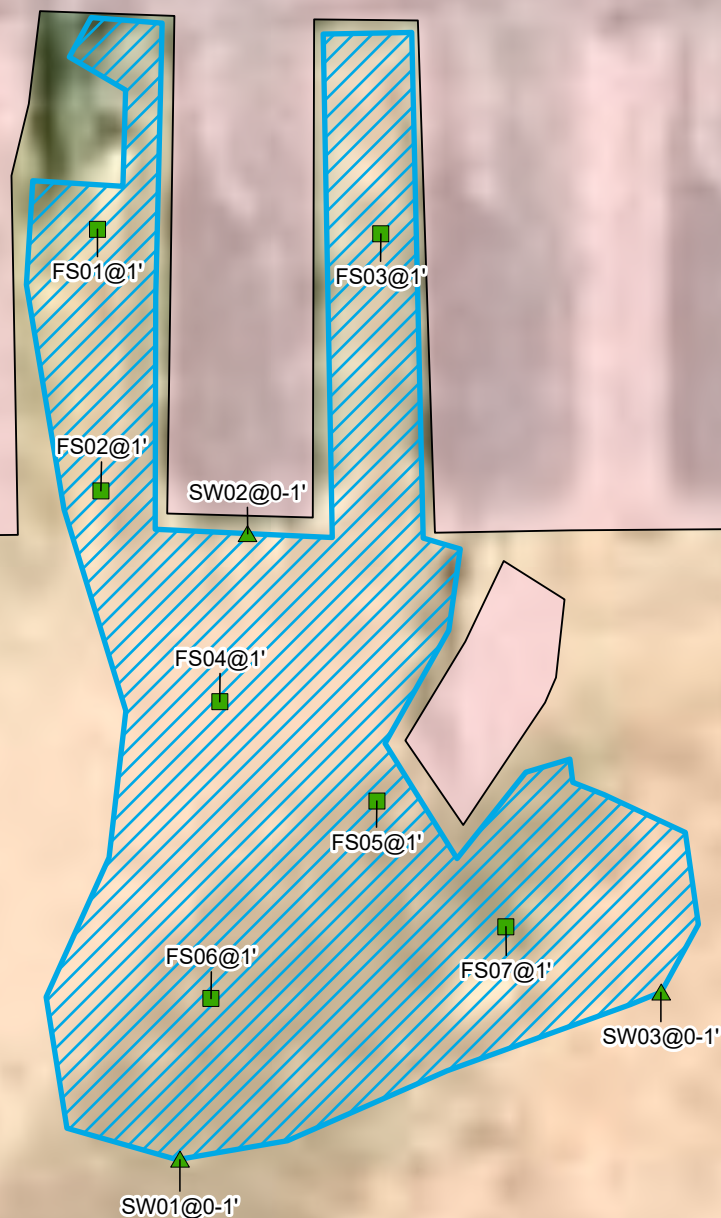
## Delineation Soil Sample Locations

XTO Energy, Inc  
 PLU 20 BD West Battery  
 Incident Number: NAPP2513447966  
 Unit N, Section 20, T 25S, R 30E  
 Eddy County, New Mexico

**FIGURE**  
**2**

**Legend**

- Confirmation Floor Sample in Compliance with Closure Criteria
- ▲ Confirmation Sidewall Sample in Compliance with Closure Criteria
- Oil and Gas Utility Line
- Infrastructure
- Excavation Extent



Notes:  
Sample ID @ Depth Below Ground Surface.

0 6 12 24  
Feet

Sources: Environmental Systems Research Institute (ESRI)



## Confirmation Soil Sample Locations

XTO Energy, Inc  
PLU 20 BD West Battery  
Incident Number: NAPP2513447966  
Unit N, Section 20, T 25S, R 30E  
Eddy County, New Mexico

## FIGURE

# 3



TABLES



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**PLU 20 BD West 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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
<b>Delineation Soil Samples</b>										
SS01	06/11/2025	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SS02	06/11/2025	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SS03	06/11/2025	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,680
SS04	06/11/2025	0.25	<0.050	<0.300	<10.0	1,380	228	1,380	1,608	5,360
SS05	06/11/2025	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,320
SS06	06/12/2025	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS07	06/12/2025	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS08	07/14/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
<b>Confirmation Soil Samples</b>										
FS01	07/02/2025	1	<0.050	<0.300	<10.0	317	52.1	317	369	160
FS02	07/02/2025	1	<0.050	<0.300	<10.0	28.2	<10.0	28.2	28.2	32.0
FS03	07/02/2025	1	<0.050	<0.300	<10.0	39.3	<10.0	39.3	39.3	80.0
FS04	07/02/2025	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	608
FS05	07/02/2025	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	496
FS06	07/02/2025	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,780
FS07	07/02/2025	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	3,560
SW01	07/02/2025	0-1	<0.050	<0.300	<10.0	73.4	10.9	73.4	84.3	48.0
SW02	07/02/2025	0-1	<0.050	<0.300	<10.0	124.0	17.8	124.0	141.8	64.0
SW03	07/14/2025	0-1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208

## Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities





## APPENDIX A

### Referenced Well Records

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# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) C-4394 POD 1 MW-01		WELL TAG ID NO.		OSE FILE NO(S). C-4394		
	WELL OWNER NAME(S) Kyle Littrell XTO Energy, Inc.				PHONE (OPTIONAL) 432-682-8873		
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Road				CITY Midland	STATE TX	
					ZIP 79707		
WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS				
	LATITUDE	32	06	46.42 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
	LONGITUDE	-103	54	55.92 W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Unit 1 Section19, Township 25S, Range 30E							
2. DRILLING & CASING INFORMATION	LICENSE NO. 1664		NAME OF LICENSED DRILLER Shawn Cain		NAME OF WELL DRILLING COMPANY Cascade Drilling		
	DRILLING STARTED 2/4/20	DRILLING ENDED 2/5/20	DEPTH OF COMPLETED WELL (FT) NA	BORE HOLE DEPTH (FT) 110	DEPTH WATER FIRST ENCOUNTERED (FT)		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN *add Centralizer info below <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT)	DATE STATIC MEASURED	
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES – SPECIFY: None						
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER – SPECIFY: Sonic				CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>		
	DEPTH (feet bgl)		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)
	FROM	TO					
	0	110	6				
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL <i>*(if using Centralizers for Artesian wells- indicate the spacing below)</i>	AMOUNT (cubic feet)	METHOD OF PLACEMENT	
	FROM	TO					
	110	0	6	Bentonite Chips	23.5	Pour	

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4394	POD NO. 1	TRN NO. 666404
LOCATION 25S. 30E. 19 3 2 4	WELL TAG ID NO. NA	PAGE 1 OF 2



Released to Imaging: 9/29/2025 3:44:10 PM



## APPENDIX B

### Photographic Log

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**Photographic Log**  
 XTO Energy, Inc.  
 PLU 20 BD West Battery  
 nAPP2513447966



Photograph: 1      Date: 05/14/2024  
 Description: Stained Area  
 View: North



Photograph: 2      Date: 07/02/2025  
 Description: Excavation Extent around FS06 and SW01  
 View: North



Photograph: 3      Date: 07/02/2025  
 Description: Excavation Extent around FS03  
 View: North



Photograph: 4      Date: 07/02/2025  
 Description: Excavation Extent around FS01 and FS02  
 View: North





**Photographic Log**  
 XTO Energy, Inc.  
 PLU 20 BD West Battery  
 nAPP2513447966

305°NW (T) • 32.111287, -103.907468 ±3m ▲ 939m



Photograph: 5 Date: 07/14/2025  
 Description: Excavation Extent around FS07 and SW02  
 View: Northwest

349°N (T) • 32.111122, -103.907579 ±3m ▲ 939m



Photograph: 6 Date: 07/14/2025  
 Description: Excavation Extent around FS06 and SW01  
 View: North

27°N (T) • 32.110912, -103.907684 ±7m ▲ 961m



Photograph: 7 Date: 07/14/2025  
 Description: Excavation Extent around FS06, SW01,  
 and SS08  
 View: North

348°N (T) • 32.110878, -103.90764 ±4m ▲ 961m



Photograph: 8 Date: 07/14/2025  
 Description: Production Equipment extending into  
 excavation area.  
 View: North





## APPENDIX C

### Laboratory Analytical Reports & Chain of Custody Documentation

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 20, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 20 BRUSHY DRAW WEST BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/16/25 12:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	06/16/2025	Sampling Date:	06/11/2025
Reported:	06/20/2025	Sampling Type:	Soil
Project Name:	PLU 20 BRUSHY DRAW WEST BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558675 - SPILL	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.111368-103.907580		

**Sample ID: SS 01 0.25 (H253562-01)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/17/2025	ND	1.78	88.9	2.00	7.21		
Toluene*	<0.050	0.050	06/17/2025	ND	1.85	92.7	2.00	7.49		
Ethylbenzene*	<0.050	0.050	06/17/2025	ND	1.80	90.1	2.00	8.38		
Total Xylenes*	<0.150	0.150	06/17/2025	ND	5.34	89.1	6.00	8.53		
Total BTEX	<0.300	0.300	06/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/17/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/16/2025	ND	207	104	200	3.34	
DRO >C10-C28*	<10.0	10.0	06/16/2025	ND	193	96.7	200	1.04	
EXT DRO >C28-C36	<10.0	10.0	06/16/2025	ND					

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 99.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received: 06/16/2025  
Reported: 06/20/2025  
Project Name: PLU 20 BRUSHY DRAW WEST BATTERY  
Project Number: 03C1558675 - SPILL  
Project Location: XTO 32.111368-103.907580

Sampling Date: 06/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: SS 02 0.25 (H253562-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/17/2025	ND	1.78	88.9	2.00	7.21		
Toluene*	<0.050	0.050	06/17/2025	ND	1.85	92.7	2.00	7.49		
Ethylbenzene*	<0.050	0.050	06/17/2025	ND	1.80	90.1	2.00	8.38		
Total Xylenes*	<0.150	0.150	06/17/2025	ND	5.34	89.1	6.00	8.53		
Total BTEX	<0.300	0.300	06/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/17/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/16/2025	ND	207	104	200	3.34	
DRO >C10-C28*	<10.0	10.0	06/16/2025	ND	193	96.7	200	1.04	
EXT DRO >C28-C36	<10.0	10.0	06/16/2025	ND					

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	06/16/2025	Sampling Date:	06/11/2025
Reported:	06/20/2025	Sampling Type:	Soil
Project Name:	PLU 20 BRUSHY DRAW WEST BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558675 - SPILL	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.111368-103.907580		

**Sample ID: SS 03 0.25 (H253562-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/17/2025	ND	1.78	88.9	2.00	7.21		
Toluene*	<0.050	0.050	06/17/2025	ND	1.85	92.7	2.00	7.49		
Ethylbenzene*	<0.050	0.050	06/17/2025	ND	1.80	90.1	2.00	8.38		
Total Xylenes*	<0.150	0.150	06/17/2025	ND	5.34	89.1	6.00	8.53		
Total BTEX	<0.300	0.300	06/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2680	16.0	06/17/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/16/2025	ND	207	104	200	3.34	
DRO >C10-C28*	<10.0	10.0	06/16/2025	ND	193	96.7	200	1.04	
EXT DRO >C28-C36	<10.0	10.0	06/16/2025	ND					

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 103 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	06/16/2025	Sampling Date:	06/11/2025
Reported:	06/20/2025	Sampling Type:	Soil
Project Name:	PLU 20 BRUSHY DRAW WEST BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558675 - SPILL	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.111368-103.907580		

**Sample ID: SS 04 0.25 (H253562-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/17/2025	ND	1.78	88.9	2.00	7.21		
Toluene*	<0.050	0.050	06/17/2025	ND	1.85	92.7	2.00	7.49		
Ethylbenzene*	<0.050	0.050	06/17/2025	ND	1.80	90.1	2.00	8.38		
Total Xylenes*	<0.150	0.150	06/17/2025	ND	5.34	89.1	6.00	8.53		
Total BTEX	<0.300	0.300	06/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5360	16.0	06/17/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/16/2025	ND	207	104	200	3.34	
DRO >C10-C28*	1380	10.0	06/16/2025	ND	193	96.7	200	1.04	
EXT DRO >C28-C36	228	10.0	06/16/2025	ND					

Surrogate: 1-Chlorooctane 112 % 44.4-145

Surrogate: 1-Chlorooctadecane 139 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received: 06/16/2025  
Reported: 06/20/2025  
Project Name: PLU 20 BRUSHY DRAW WEST BATTERY  
Project Number: 03C1558675 - SPILL  
Project Location: XTO 32.111368-103.907580

Sampling Date: 06/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: SS 05 0.25 (H253562-05)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/17/2025	ND	1.78	88.9	2.00	7.21		
Toluene*	<0.050	0.050	06/17/2025	ND	1.85	92.7	2.00	7.49		
Ethylbenzene*	<0.050	0.050	06/17/2025	ND	1.80	90.1	2.00	8.38		
Total Xylenes*	<0.150	0.150	06/17/2025	ND	5.34	89.1	6.00	8.53		
Total BTEX	<0.300	0.300	06/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2320	16.0	06/17/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/16/2025	ND	207	104	200	3.34	
DRO >C10-C28*	<10.0	10.0	06/16/2025	ND	193	96.7	200	1.04	
EXT DRO >C28-C36	<10.0	10.0	06/16/2025	ND					

Surrogate: 1-Chlorooctane 113 % 44.4-145

Surrogate: 1-Chlorooctadecane 111 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	06/16/2025	Sampling Date:	06/12/2025
Reported:	06/20/2025	Sampling Type:	Soil
Project Name:	PLU 20 BRUSHY DRAW WEST BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558675 - SPILL	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.111368-103.907580		

**Sample ID: SS 06 0.25 (H253562-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/17/2025	ND	1.78	88.9	2.00	7.21		
Toluene*	<0.050	0.050	06/17/2025	ND	1.85	92.7	2.00	7.49		
Ethylbenzene*	<0.050	0.050	06/17/2025	ND	1.80	90.1	2.00	8.38		
Total Xylenes*	<0.150	0.150	06/17/2025	ND	5.34	89.1	6.00	8.53		
Total BTEX	<0.300	0.300	06/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	06/17/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/16/2025	ND	207	104	200	3.34	
DRO >C10-C28*	<10.0	10.0	06/16/2025	ND	193	96.7	200	1.04	
EXT DRO >C28-C36	<10.0	10.0	06/16/2025	ND					

Surrogate: 1-Chlorooctane 91.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.3 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	06/16/2025	Sampling Date:	06/12/2025
Reported:	06/20/2025	Sampling Type:	Soil
Project Name:	PLU 20 BRUSHY DRAW WEST BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558675 - SPILL	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.111368-103.907580		

**Sample ID: SS 07 0.25 (H253562-07)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/17/2025	ND	1.78	88.9	2.00	7.21		
Toluene*	<0.050	0.050	06/17/2025	ND	1.85	92.7	2.00	7.49		
Ethylbenzene*	<0.050	0.050	06/17/2025	ND	1.80	90.1	2.00	8.38		
Total Xylenes*	<0.150	0.150	06/17/2025	ND	5.34	89.1	6.00	8.53		
Total BTEX	<0.300	0.300	06/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	06/17/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/16/2025	ND	207	104	200	3.34	
DRO >C10-C28*	<10.0	10.0	06/16/2025	ND	193	96.7	200	1.04	
EXT DRO >C28-C36	<10.0	10.0	06/16/2025	ND					

Surrogate: 1-Chlorooctane 113 % 44.4-145

Surrogate: 1-Chlorooctadecane 109 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 08, 2025

JEREMY REICH

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: PLU 20 BD WEST BATTERY - SPILLS

Enclosed are the results of analyses for samples received by the laboratory on 07/03/25 12:46.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Snyder".

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 JEREMY REICH  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2025  
 Reported: 07/08/2025  
 Project Name: PLU 20 BD WEST BATTERY - SPILLS  
 Project Number: 03C1558675  
 Project Location: XTO 32.111368-103.907580

Sampling Date: 07/02/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 01 1' (H254006-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/03/2025	ND	1.89	94.7	2.00	1.36	
Toluene*	<0.050	0.050	07/03/2025	ND	1.71	85.5	2.00	3.18	
Ethylbenzene*	<0.050	0.050	07/03/2025	ND	1.73	86.7	2.00	3.30	
Total Xylenes*	<0.150	0.150	07/03/2025	ND	5.42	90.3	6.00	4.25	
Total BTX	<0.300	0.300	07/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/07/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/03/2025	ND	195	97.7	200	2.38	
DRO >C10-C28*	317	10.0	07/03/2025	ND	198	99.0	200	2.71	
EXT DRO >C28-C36	52.1	10.0	07/03/2025	ND					

Surrogate: 1-Chlorooctane 78.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.8 % 40.6-153

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\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 JEREMY REICH  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2025  
 Reported: 07/08/2025  
 Project Name: PLU 20 BD WEST BATTERY - SPILLS  
 Project Number: 03C1558675  
 Project Location: XTO 32.111368-103.907580

Sampling Date: 07/02/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 02 1' (H254006-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2025	ND	1.89	94.7	2.00	1.36		
Toluene*	<0.050	0.050	07/03/2025	ND	1.71	85.5	2.00	3.18		
Ethylbenzene*	<0.050	0.050	07/03/2025	ND	1.73	86.7	2.00	3.30		
Total Xylenes*	<0.150	0.150	07/03/2025	ND	5.42	90.3	6.00	4.25		
Total BTEX	<0.300	0.300	07/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/07/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2025	ND	210	105	200	0.153	
DRO >C10-C28*	28.2	10.0	07/07/2025	ND	203	102	200	1.09	
EXT DRO >C28-C36	<10.0	10.0	07/07/2025	ND					

Surrogate: 1-Chlorooctane 90.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 JEREMY REICH  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2025  
 Reported: 07/08/2025  
 Project Name: PLU 20 BD WEST BATTERY - SPILLS  
 Project Number: 03C1558675  
 Project Location: XTO 32.111368-103.907580

Sampling Date: 07/02/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 03 1' (H254006-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2025	ND	1.89	94.7	2.00	1.36		
Toluene*	<0.050	0.050	07/03/2025	ND	1.71	85.5	2.00	3.18		
Ethylbenzene*	<0.050	0.050	07/03/2025	ND	1.73	86.7	2.00	3.30		
Total Xylenes*	<0.150	0.150	07/03/2025	ND	5.42	90.3	6.00	4.25		
Total BTEX	<0.300	0.300	07/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/07/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2025	ND	210	105	200	0.153	
DRO >C10-C28*	39.3	10.0	07/07/2025	ND	203	102	200	1.09	
EXT DRO >C28-C36	<10.0	10.0	07/07/2025	ND					

Surrogate: 1-Chlorooctane 83.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 JEREMY REICH  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2025  
 Reported: 07/08/2025  
 Project Name: PLU 20 BD WEST BATTERY - SPILLS  
 Project Number: 03C1558675  
 Project Location: XTO 32.111368-103.907580

Sampling Date: 07/02/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 04 1' (H254006-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2025	ND	1.89	94.7	2.00	1.36		
Toluene*	<0.050	0.050	07/03/2025	ND	1.71	85.5	2.00	3.18		
Ethylbenzene*	<0.050	0.050	07/03/2025	ND	1.73	86.7	2.00	3.30		
Total Xylenes*	<0.150	0.150	07/03/2025	ND	5.42	90.3	6.00	4.25		
Total BTEX	<0.300	0.300	07/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	07/07/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2025	ND	210	105	200	0.153	
DRO >C10-C28*	<10.0	10.0	07/07/2025	ND	203	102	200	1.09	
EXT DRO >C28-C36	<10.0	10.0	07/07/2025	ND					

Surrogate: 1-Chlorooctane 86.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 75.5 % 40.6-153

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 JEREMY REICH  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2025  
 Reported: 07/08/2025  
 Project Name: PLU 20 BD WEST BATTERY - SPILLS  
 Project Number: 03C1558675  
 Project Location: XTO 32.111368-103.907580

Sampling Date: 07/02/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 05 1' (H254006-05)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2025	ND	1.89	94.7	2.00	1.36		
Toluene*	<0.050	0.050	07/03/2025	ND	1.71	85.5	2.00	3.18		
Ethylbenzene*	<0.050	0.050	07/03/2025	ND	1.73	86.7	2.00	3.30		
Total Xylenes*	<0.150	0.150	07/03/2025	ND	5.42	90.3	6.00	4.25		
Total BTX	<0.300	0.300	07/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	496	16.0	07/07/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2025	ND	210	105	200	0.153	
DRO >C10-C28*	<10.0	10.0	07/07/2025	ND	203	102	200	1.09	
EXT DRO >C28-C36	<10.0	10.0	07/07/2025	ND					

Surrogate: 1-Chlorooctane 89.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.8 % 40.6-153

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 JEREMY REICH  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2025  
 Reported: 07/08/2025  
 Project Name: PLU 20 BD WEST BATTERY - SPILLS  
 Project Number: 03C1558675  
 Project Location: XTO 32.111368-103.907580

Sampling Date: 07/02/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 06 1' (H254006-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2025	ND	1.89	94.7	2.00	1.36		
Toluene*	<0.050	0.050	07/03/2025	ND	1.71	85.5	2.00	3.18		
Ethylbenzene*	<0.050	0.050	07/03/2025	ND	1.73	86.7	2.00	3.30		
Total Xylenes*	<0.150	0.150	07/03/2025	ND	5.42	90.3	6.00	4.25		
Total BTEX	<0.300	0.300	07/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1780	16.0	07/07/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2025	ND	210	105	200	0.153	
DRO >C10-C28*	<10.0	10.0	07/07/2025	ND	203	102	200	1.09	
EXT DRO >C28-C36	<10.0	10.0	07/07/2025	ND					

Surrogate: 1-Chlorooctane 86.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.9 % 40.6-153

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 JEREMY REICH  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2025  
 Reported: 07/08/2025  
 Project Name: PLU 20 BD WEST BATTERY - SPILLS  
 Project Number: 03C1558675  
 Project Location: XTO 32.111368-103.907580

Sampling Date: 07/02/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 07 1' (H254006-07)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2025	ND	1.89	94.7	2.00	1.36		
Toluene*	<0.050	0.050	07/03/2025	ND	1.71	85.5	2.00	3.18		
Ethylbenzene*	<0.050	0.050	07/03/2025	ND	1.73	86.7	2.00	3.30		
Total Xylenes*	<0.150	0.150	07/03/2025	ND	5.42	90.3	6.00	4.25		
Total BTEX	<0.300	0.300	07/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3560	16.0	07/07/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2025	ND	210	105	200	0.153	
DRO >C10-C28*	<10.0	10.0	07/07/2025	ND	203	102	200	1.09	
EXT DRO >C28-C36	<10.0	10.0	07/07/2025	ND					

Surrogate: 1-Chlorooctane 89.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.5 % 40.6-153

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 JEREMY REICH  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2025  
 Reported: 07/08/2025  
 Project Name: PLU 20 BD WEST BATTERY - SPILLS  
 Project Number: 03C1558675  
 Project Location: XTO 32.111368-103.907580

Sampling Date: 07/02/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW 01 0-1' (H254006-08)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2025	ND	1.89	94.7	2.00	1.36		
Toluene*	<0.050	0.050	07/03/2025	ND	1.71	85.5	2.00	3.18		
Ethylbenzene*	<0.050	0.050	07/03/2025	ND	1.73	86.7	2.00	3.30		
Total Xylenes*	<0.150	0.150	07/03/2025	ND	5.42	90.3	6.00	4.25		
Total BTEX	<0.300	0.300	07/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/07/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2025	ND	210	105	200	0.153	
DRO >C10-C28*	73.4	10.0	07/07/2025	ND	203	102	200	1.09	
EXT DRO >C28-C36	10.9	10.0	07/07/2025	ND					

Surrogate: 1-Chlorooctane 89.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.2 % 40.6-153

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\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 JEREMY REICH  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2025  
 Reported: 07/08/2025  
 Project Name: PLU 20 BD WEST BATTERY - SPILLS  
 Project Number: 03C1558675  
 Project Location: XTO 32.111368-103.907580

Sampling Date: 07/02/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW 02 0-1' (H254006-09)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2025	ND	1.89	94.7	2.00	1.36		
Toluene*	<0.050	0.050	07/03/2025	ND	1.71	85.5	2.00	3.18		
Ethylbenzene*	<0.050	0.050	07/03/2025	ND	1.73	86.7	2.00	3.30		
Total Xylenes*	<0.150	0.150	07/03/2025	ND	5.42	90.3	6.00	4.25		
Total BTEX	<0.300	0.300	07/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/07/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2025	ND	210	105	200	0.153	
DRO >C10-C28*	124	10.0	07/07/2025	ND	203	102	200	1.09	
EXT DRO >C28-C36	17.8	10.0	07/07/2025	ND					

Surrogate: 1-Chlorooctane 89.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.2 % 40.6-153

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



---

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### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in black ink, appearing to read "Mike Snyder", is written over a horizontal line.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 12 of 12



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 21, 2025

JEREMY REICH

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: PLU 20 BD WEST BATTERY - SPILLS

Enclosed are the results of analyses for samples received by the laboratory on 07/17/25 14:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' at the beginning.

Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 JEREMY REICH  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	07/17/2025	Sampling Date:	07/14/2025
Reported:	07/21/2025	Sampling Type:	Soil
Project Name:	PLU 20 BD WEST BATTERY - SPILLS	Sampling Condition:	Cool & Intact
Project Number:	03C1558675	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.111368-103.907580		

**Sample ID: SS 08 0' (H254291-01)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2025	ND	1.88	93.9	2.00	0.530	
Toluene*	<0.050	0.050	07/18/2025	ND	1.90	95.2	2.00	0.0319	
Ethylbenzene*	<0.050	0.050	07/18/2025	ND	1.92	96.2	2.00	0.707	
Total Xylenes*	<0.150	0.150	07/18/2025	ND	5.77	96.1	6.00	1.27	
Total BTEX	<0.300	0.300	07/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	07/18/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/18/2025	ND	202	101	200	3.50	
DRO >C10-C28*	<10.0	10.0	07/18/2025	ND	190	94.8	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	07/18/2025	ND					

Surrogate: 1-Chlorooctane 83.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.8 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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---

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(1)

[illegible]

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

August 12, 2025

JEREMY REICH

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: PLU 20 BD WEST BATTERY - SPILLS

Enclosed are the results of analyses for samples received by the laboratory on 07/17/25 14:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at

[www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND TX, 79705Project: PLU 20 BD WEST BATTERY - SPILL  
Project Number: 03C1558675  
Project Manager: JEREMY REICH  
Fax To:Reported:  
12-Aug-25 09:29

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW03 0-1	H254290-01	Soil	14-Jul-25 14:06	17-Jul-25 14:42

08/12/25 - Client changed the sample ID (see COC). This is the revised report and will replace the one sent on 07/21/25.

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND TX, 79705

Project: PLU 20 BD WEST BATTERY - SPILL  
Project Number: 03C1558675  
Project Manager: JEREMY REICH  
Fax To:

Reported:  
12-Aug-25 09:29

**SW03 0-1**  
**H254290-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>208</b>		16.0	mg/kg	4	5071827	AC	18-Jul-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5071804	JH	19-Jul-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5071804	JH	19-Jul-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5071804	JH	19-Jul-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5071804	JH	19-Jul-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5071804	JH	19-Jul-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134 5071804 JH 19-Jul-25 8021B

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5071742	MS	18-Jul-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5071742	MS	18-Jul-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5071742	MS	18-Jul-25	8015B	

Surrogate: 1-Chlorooctane 90.3 % 44.4-145 5071742 MS 18-Jul-25 8015B

Surrogate: 1-Chlorooctadecane 91.1 % 40.6-153 5071742 MS 18-Jul-25 8015B

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**Analytical Results For:**

ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND TX, 79705

Project: PLU 20 BD WEST BATTERY - SPILL  
Project Number: 03C1558675  
Project Manager: JEREMY REICH  
Fax To:

Reported:  
12-Aug-25 09:29

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5071827 - 1:4 DI Water</b>										
<b>Blank (5071827-BLK1)</b>				Prepared & Analyzed: 18-Jul-25						
Chloride	ND	16.0	mg/kg							
<b>LCS (5071827-BS1)</b>				Prepared & Analyzed: 18-Jul-25						
Chloride	448	16.0	mg/kg	400		112	80-120			
<b>LCS Dup (5071827-BSD1)</b>				Prepared & Analyzed: 18-Jul-25						
Chloride	432	16.0	mg/kg	400		108	80-120	3.64	20	

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**Analytical Results For:**

ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND TX, 79705

Project: PLU 20 BD WEST BATTERY - SPILL  
Project Number: 03C1558675  
Project Manager: JEREMY REICH  
Fax To:

Reported:  
12-Aug-25 09:29

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5071804 - Volatiles****Blank (5071804-BLK1)**

Prepared &amp; Analyzed: 18-Jul-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0545		mg/kg	0.0500		109	71.5-134			

**LCS (5071804-BS1)**

Prepared &amp; Analyzed: 18-Jul-25

Benzene	1.88	0.050	mg/kg	2.00		93.9	76.3-129			
Toluene	1.90	0.050	mg/kg	2.00		95.2	84.1-129			
Ethylbenzene	1.92	0.050	mg/kg	2.00		96.2	80.1-133			
m,p-Xylene	3.86	0.100	mg/kg	4.00		96.6	81.4-134			
o-Xylene	1.91	0.050	mg/kg	2.00		95.3	81.4-133			
Total Xylenes	5.77	0.150	mg/kg	6.00		96.1	81.5-134			
Surrogate: 4-Bromofluorobenzene (PID)	0.0489		mg/kg	0.0500		97.8	71.5-134			

**LCS Dup (5071804-BSD1)**

Prepared &amp; Analyzed: 18-Jul-25

Benzene	1.87	0.050	mg/kg	2.00		93.4	76.3-129	0.530	15.8	
Toluene	1.90	0.050	mg/kg	2.00		95.2	84.1-129	0.0319	15.9	
Ethylbenzene	1.94	0.050	mg/kg	2.00		96.9	80.1-133	0.707	16	
m,p-Xylene	3.91	0.100	mg/kg	4.00		97.8	81.4-134	1.31	16.2	
o-Xylene	1.93	0.050	mg/kg	2.00		96.4	81.4-133	1.20	16.7	
Total Xylenes	5.84	0.150	mg/kg	6.00		97.4	81.5-134	1.27	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0494		mg/kg	0.0500		98.8	71.5-134			

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**Analytical Results For:**

ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND TX, 79705

Project: PLU 20 BD WEST BATTERY - SPILL  
Project Number: 03C1558675  
Project Manager: JEREMY REICH  
Fax To:

Reported:  
12-Aug-25 09:29

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5071742 - General Prep - Organics****Blank (5071742-BLK1)**

Prepared: 17-Jul-25 Analyzed: 18-Jul-25

GRO C6-C10	ND	10.0	mg/kg						
DRO >C10-C28	ND	10.0	mg/kg						
EXT DRO >C28-C36	ND	10.0	mg/kg						
Surrogate: 1-Chlorooctane	45.0		mg/kg	50.0		90.0	44.4-145		
Surrogate: 1-Chlorooctadecane	43.3		mg/kg	50.0		86.7	40.6-153		

**LCS (5071742-BS1)**

Prepared: 17-Jul-25 Analyzed: 18-Jul-25

GRO C6-C10	202	10.0	mg/kg	200		101	81.5-123		
DRO >C10-C28	190	10.0	mg/kg	200		94.8	77.7-122		
Total TPH C6-C28	391	10.0	mg/kg	400		97.8	80.9-121		
Surrogate: 1-Chlorooctane	51.6		mg/kg	50.0		103	44.4-145		
Surrogate: 1-Chlorooctadecane	52.0		mg/kg	50.0		104	40.6-153		

**LCS Dup (5071742-BS1)**

Prepared: 17-Jul-25 Analyzed: 18-Jul-25

GRO C6-C10	195	10.0	mg/kg	200		97.3	81.5-123	3.50	13
DRO >C10-C28	186	10.0	mg/kg	200		92.8	77.7-122	2.11	15.6
Total TPH C6-C28	380	10.0	mg/kg	400		95.1	80.9-121	2.82	18.5
Surrogate: 1-Chlorooctane	50.1		mg/kg	50.0		100	44.4-145		
Surrogate: 1-Chlorooctadecane	50.3		mg/kg	50.0		101	40.6-153		

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### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

7.7

[illegible]

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 495079

**QUESTIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 495079
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2513447966
Incident Name	NAPP2513447966 PLU 20 BD WEST BATTERY @ FAPP2126355870
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2126355870] PLU 20 BRUSHY DRAW WEST BTY

**Location of Release Source***Please answer all the questions in this group.*

Site Name	PLU 20 BD WEST BATTERY
Date Release Discovered	05/14/2025
Surface Owner	Federal

**Incident Details***Please answer all the questions in this group.*

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

**Nature and Volume of Release***Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Corrosion   Separator   Produced Water   Released: 6 BBL   Recovered: 1 BBL   Lost: 5 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Releases off a water line from separator

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

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

QUESTIONS, Page 2

Action 495079

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 495079
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>No</b>
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>
<i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i>	

**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	<b>True</b>
The impacted area has been secured to protect human health and the environment	<b>True</b>
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	<b>True</b>
All free liquids and recoverable materials have been removed and managed appropriately	<b>True</b>
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

*Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.*

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.

I hereby agree and sign off to the above statement	Name: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 08/12/2025
--	--



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Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 3

Action 495079

**QUESTIONS (continued)**

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  495079
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Site Characterization</b>	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 300 and 500 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between ½ and 1 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 300 and 500 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 500 and 1000 (ft.)
Did the release impact areas not on an exploration, development, production, or storage site	No

<b>Remediation Plan</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
<b>Soil Contamination Sampling:</b> (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	3560
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	369
GRO+DRO (EPA SW-846 Method 8015M)	317
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	06/11/2025
On what date will (or did) the final sampling or liner inspection occur	06/11/2025
On what date will (or was) the remediation complete(d)	07/14/2025
What is the estimated surface area (in square feet) that will be reclaimed	1385
What is the estimated volume (in cubic yards) that will be reclaimed	60
What is the estimated surface area (in square feet) that will be remediated	1385
What is the estimated volume (in cubic yards) that will be remediated	60
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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**Santa Fe, NM 87505**

QUESTIONS, Page 4

Action 495079

**QUESTIONS (continued)**

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  495079
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	fJEG1635837366 OWL LANDFILL JAL
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 08/12/2025
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5  
  
Action 495079

QUESTIONS (continued)

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  495079
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 495079

**QUESTIONS (continued)**

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  495079
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	483140
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/14/2025
What was the (estimated) number of samples that were to be gathered	2
What was the sampling surface area in square feet	400

**Remediation Closure Request**

*Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.*

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	1385
What was the total volume (cubic yards) remediated	60
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	Site assessment and excavation activities were conducted at the Site to address the May 14, 2025, release of produced water. Laboratory analytical results for confirmation soil samples collected from the final excavation extent indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Based on laboratory analytical results, no further remediation is required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. Areas pending reclamation will be completed during pad abandonment or major facility reconstruction.

*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 (in .pdf format) 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.*

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.

I hereby agree and sign off to the above statement	Name: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 08/12/2025
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Action 495079

QUESTIONS (continued)

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  495079
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No



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CONDITIONS

Action 495079

CONDITIONS

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  495079
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling operations.	9/29/2025