



November 24, 2025

**New Mexico Oil Conservation Division**

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

**Re: Closure Request  
Big Sinks 22 Fed Battery  
Incident Number nAPP2518855012  
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 the findings of a liner integrity inspection and delineation activities completed at the Big Sinks 22 Fed Battery (Site) following a release of produced water within a 1,945 square foot earthen berm, lined containment housing multiple steel tanks, horizontal separators, and process piping. Based on the liner integrity inspection and delineation activities, XTO is submitting this *Closure Request*, describing liner integrity inspection and delineation activities that have occurred and requesting no further action for Incident Number nAPP2518855012.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit P, Section 22, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.196609°, -103.862052°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On July 3, 2025, a corroded fire tube at the heater treater resulted in the release of approximately 10 barrels (bbls) of produced water into a lined containment. A vacuum truck was dispatched to the Site to recover free-standing fluids, and all released fluid was recovered. The fire tube was repaired and returned to service and the lined containment was power washed to remove any residual fluids. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Notification of Release (NOR) on July 7, 2025, and submitted an Initial C-141 Application (C-141) on July 23, 2025. The release was assigned Incident Number nAPP2518855012.

**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 a recent soil boring drilled for determination of regional groundwater depth. On August 3, 2023, a soil boring (C-04761) permitted by New Mexico Office of the State Engineer (NMOSE) was advanced approximately 0.27 miles southwest of the Site. The soil boring was drilled to a total depth of 110 feet

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bgs. No groundwater was encountered during drilling activities. All wells used for depth to groundwater determination are presented on Figure 1. The Well Record and Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a seasonal dry wash located approximately 2,800 feet north of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

## **LINER INTEGRITY INSPECTION ACTIVITIES**

The location of the lined containment is depicted on Figure 2. The lined containment was cleaned of all debris, power washed and a 48-hour advanced notice of the liner inspection was submitted to the NMOCD on August 21, 2025. On August 26, 2025, the lined containment was inspected by Ensolum personnel and was determined to contain a small grouping of tears located near process piping and a horizontal separator. No other tears were located on the walls or remaining liner floor. Delineation to determine the extent of the release was warranted. Photographic documentation of the inspection is included in Appendix B.

## **DELINEATION SOIL SAMPLING ACTIVITIES**

On September 25 and September 30, 2025, Ensolum personnel were at the Site to conduct delineation activities. Four delineation soil samples (SS01 through SS04) were collected around the lined containment from a depth of approximately 0.5 feet bgs to confirm the release remained within the lined containment walls. One borehole, BH01, was advanced via hand auger to a terminal depth of 1-foot bgs in the central location of the tears in the liner a safe distance from the active production equipment, horizontal separators, and process piping. Discrete delineation soil samples were collected from the borehole at depths of 0.5 feet and 1-foot bgs. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. Field screening results and observations were logged on lithologic soil sampling logs, which are included in Appendix C. The delineation 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 B.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the Site 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



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Mexico or Eurofins Carlsbad (Eurofins) in Carlsbad, New Mexico, for analysis of the following contaminants 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 Standard Method SM4500 or EPA Method 300.0.

## LABORATORY ANALYTICAL RESULTS

Delineation soil samples SS01 through SS04 indicated all COCs were in compliance with the strictest Table I Closure Criteria, successfully confirming the release did not breach the walls of the lined containment. Laboratory analytical results for all delineation soil samples collected from BH01 indicated all COCs were in compliance with the strictest Table I Closure Criteria, successfully confirming the absence of impacted soil located beneath the observed tears in the liner. Laboratory analytical results are summarized in Table 1 and the laboratory analytical reports are included in Appendix D.

## CLOSURE REQUEST

Liner integrity inspection and delineation activities were conducted at the Site following the July 3, 2025, release of produced water. Laboratory analytical results for the delineation soil samples, collected in the liner tear and around the lined containment, indicated all COC concentrations were compliant with the strictest Table I Closure Criteria. The liner tears where BH01 was advanced, were immediately patched following the completion of delineation activities to restore spill control measures.

Delineation at the Site confirmed the absence of impacted and waste-containing soil. Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the Site. Based on initial response efforts and the liner operating as designed, XTO respectfully requests closure for Incident Number nAPP2518855012.

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**



Kim Thomason  
Senior Technician



Tacoma Morrissey, M.S.  
Associate Principal

Cc: Robert Woodall, XTO  
Richard Kotzur, XTO  
BLM

### Appendices:

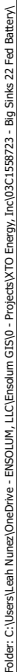
Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	Volume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





FIGURES





# 1



**Legend**

- Delineation Soil Sample  
in Compliance with  
Closure Criteria
- Lined Containment



Notes:  
Sample ID @ Depth Below Ground Surface.

0 10 20 40  
Feet

Sources: Environmental Systems Research Institute (ESRI)



## Delineation Soil Sample Locations

XTO Energy, Inc.  
Big Sinks 22 Fed Battery  
Incident Number: nAPP2518855012  
Unit P, Section 22, T 24S, R 30E  
Eddy County, New Mexico

**FIGURE**  
**2**



TABLE



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**Big Sinks 22 Fed 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
Delineation Soil Samples										
SS01	09/30/2025	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	384
SS02	09/30/2025	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	118
SS03	09/30/2025	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	570
SS04	09/30/2025	0.5	<0.00202	<0.00404	<50.1	<50.1	<50.1	<50.1	<50.1	61.3
BH01	09/25/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
BH01A	09/25/2025	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0

## 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



## 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)

<b>1. GENERAL AND WELL LOCATION</b>	OSE POD NO. (WELL NO.) Pod 1 (BH01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4761		
	WELL OWNER NAME(S) XTO Energy, Inc.				PHONE (OPTIONAL)		
	WELL OWNER MAILING ADDRESS 3401 E, Greene Street				CITY Carlsbad	STATE NM	ZIP 88220
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 11	SECONDS 43.46	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84	
		LONGITUDE -103	51	56.21	W		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Unit B, Section 27, Township 24 South, Range 30 East							

<b>2. DRILLING &amp; CASING INFORMATION</b>	LICENSE NO. WD-1188		NAME OF LICENSED DRILLER Scott Scarborough			NAME OF WELL DRILLING COMPANY Scarborough Drilling Inc.		
	DRILLING STARTED 8/3/2023	DRILLING ENDED 8/3/2023	DEPTH OF COMPLETED WELL (FT) Temp casing only	BORE HOLE DEPTH (FT) 110	DEPTH WATER FIRST ENCOUNTERED (FT) N/A			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES – SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER – SPECIFY:							
	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)	SLOT SIZE (inches)
	FROM	TO						
	0	110	6	Temporary SCH 40 PVC	-	2	-	-

<b>3. ANNULAR MATERIAL</b>	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)


FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		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)
	FROM	TO				
	0	20	20	Tan Caliche	Y    ✓ N	
	20	40	20	Orange-Brown Sand	Y    ✓ N	
	40	110	70	Orange Sand	Y    ✓ N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> 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 casing removed and soil boring backfilled using drill cuttings from terminal depth to 10 feet below ground surface (bgs), then hydrated bentonite chips from 10 feet bgs to ground surface.	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Meredith Roberts	

6. SIGNATURE	BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.	
	 _____ SIGNATURE OF DRILLER / PRINT SIGNEE NAME	2/25/2025 _____ DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 04/30/2019)

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



## APPENDIX B

### Photographic Log

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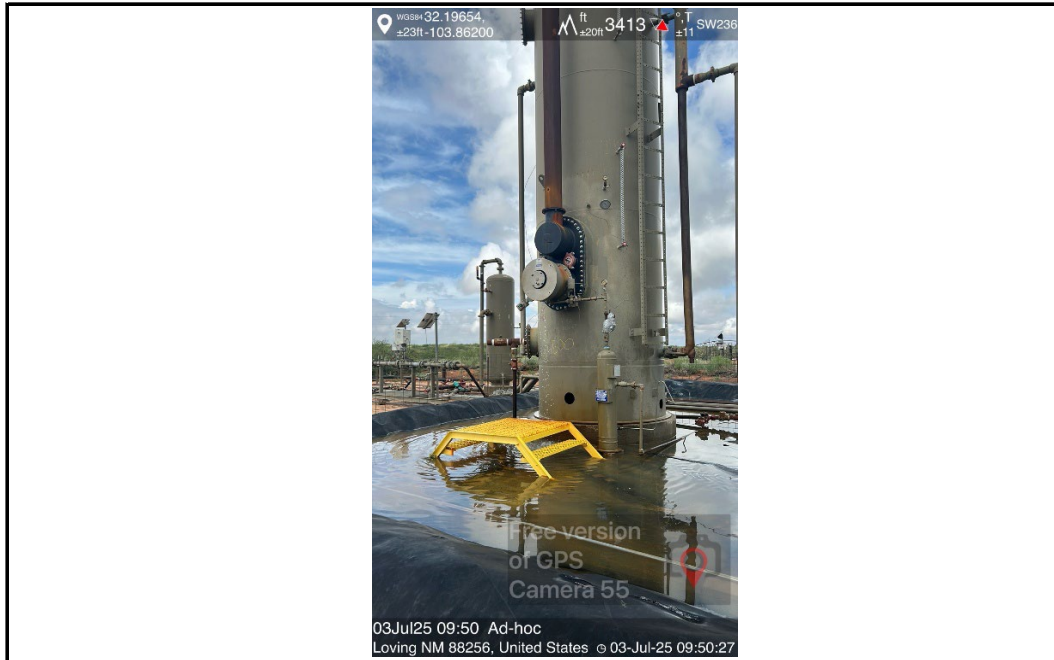


**Photographic Log**

XTO Energy, Inc.

Big Sinks 22 Fed Battery

Incident Number nAPP2518855012



Photograph 1

Date: July 3, 2025

Description: View of the initial release facing southwest



Photograph 2

Date: August 26, 2025

Description: View of facility sign



**Photographic Log**  
 XTO Energy, Inc.  
 Big Sinks 22 Fed Battery  
 Incident Number nAPP2518855012



Photograph: 3 Date: 8/26/2025  
 Description: Liner inspection activities  
 View: Southwest



Photograph: 4 Date: 8/26/2025  
 Description: Liner inspection activities  
 View: Southwest



Photograph: 5 Date: 8/26/2025  
 Description: Liner inspection activities  
 View: Northwest



Photograph: 6 Date: 8/26/2025  
 Description: Location of small tears in liner  
 View: Northwest



**Photographic Log**

XTO Energy, Inc.

Big Sinks 22 Fed Battery

Incident Number nAPP2518855012



Photograph: 7 Date: 8/26/2025  
Description: Liner inspection activities  
View: Northwest



Photograph: 8 Date: 8/26/2025  
Description: Liner inspection activities  
View: Northwest



Photograph: 9 Date: 9/25/2025  
Description: Delineation activities (BH01)  
View: Northwest



Photograph: 10 Date: 9/25/2025  
Description: Patched liner in location of BH01  
View: Northwest



**Photographic Log**

XTO Energy, Inc.

Big Sinks 22 Fed Battery

Incident Number nAPP2518855012



Photograph: 11                      Date: 9/30/2025  
 Description: Lateral delineation sampling (SS01)  
 View: Southeast



Photograph: 12                      Date: 9/30/2025  
 Description: Lateral delineation sampling (SS02)  
 View: North



Photograph: 13                      Date: 9/30/2025  
 Description: Lateral delineation sampling (SS03)  
 View: North




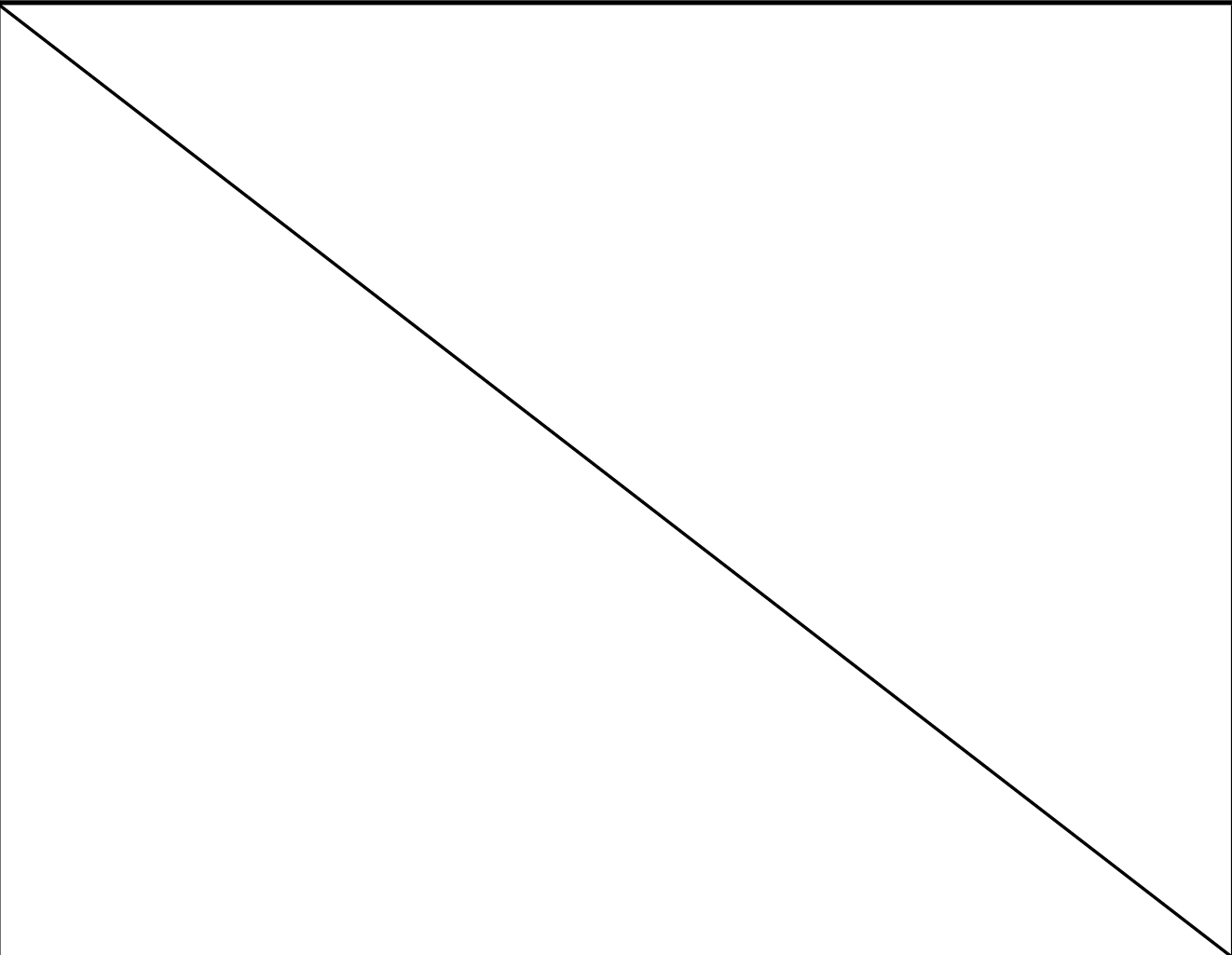
Photograph: 14                      Date: 9/30/2025  
 Description: Lateral delineation sampling (SS04)  
 View: Southeast





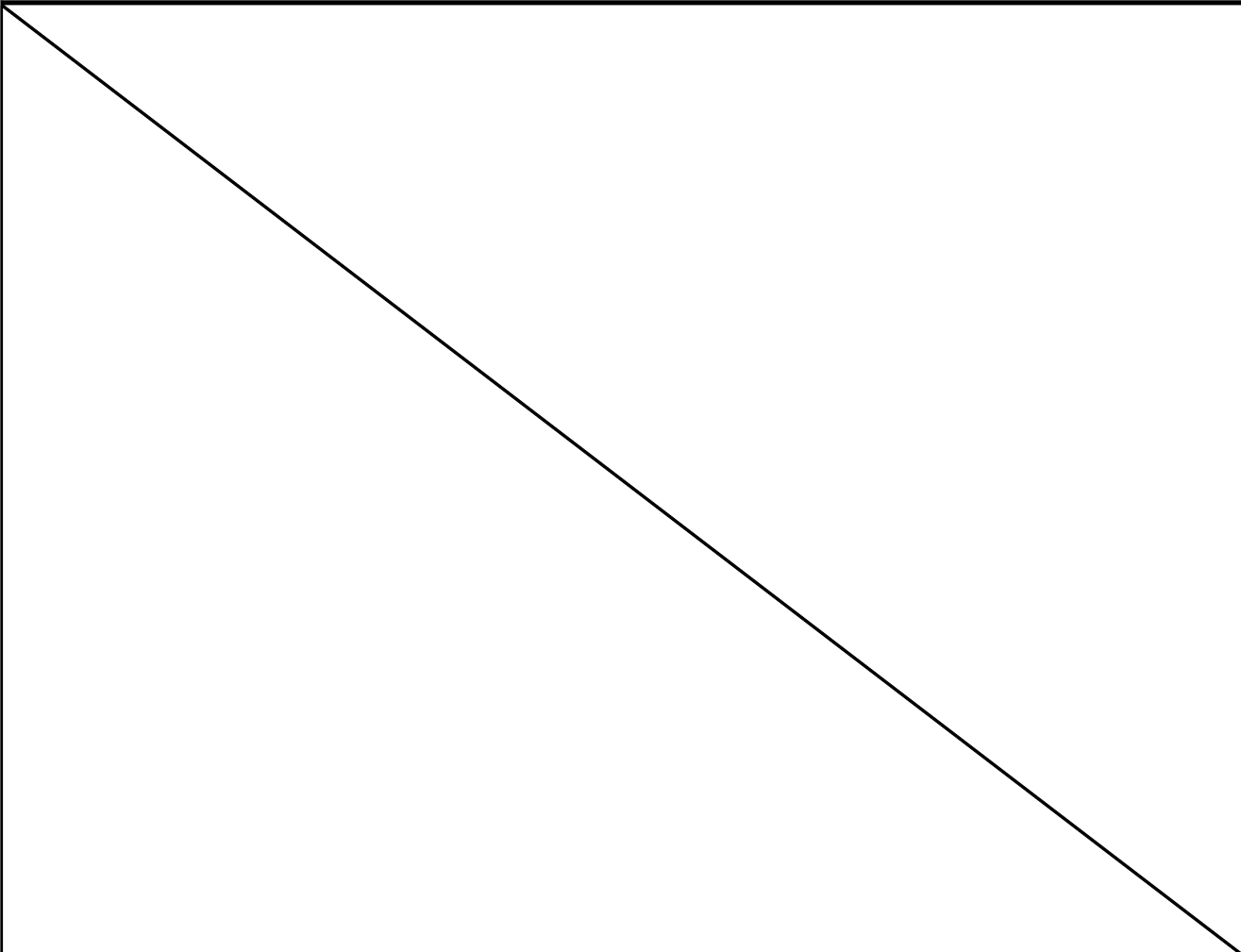
## APPENDIX C

### Lithologic Soil Sampling Logs


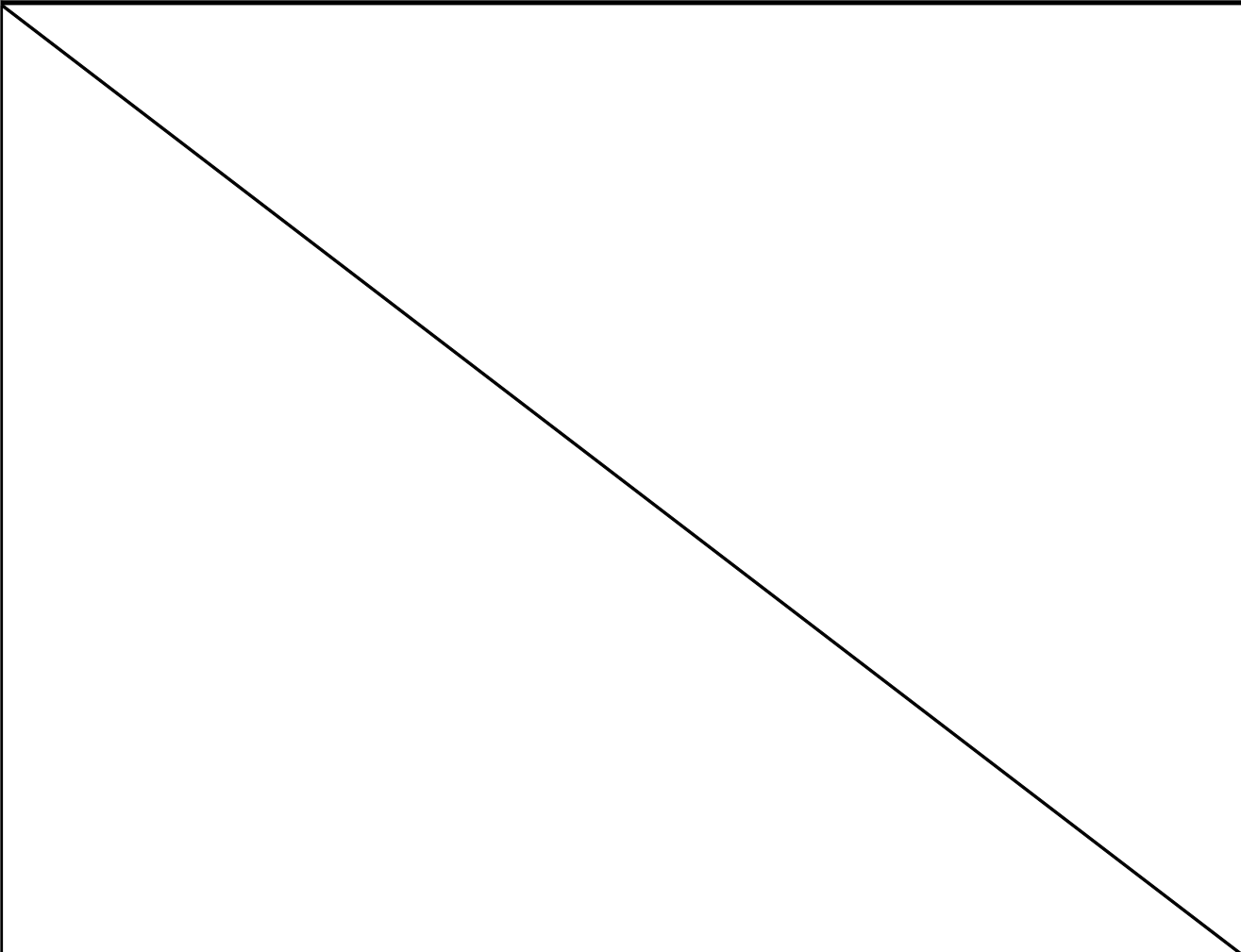
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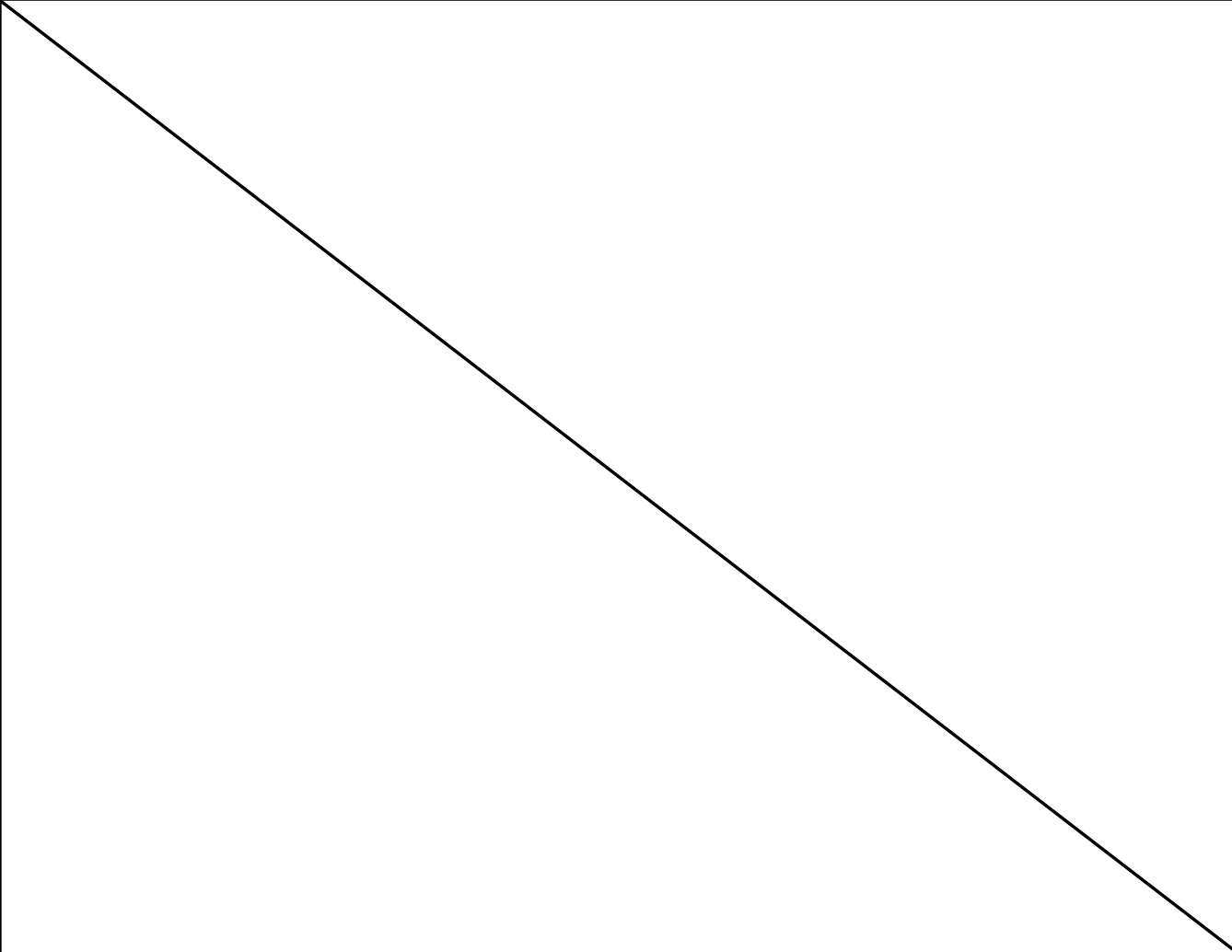
 <b>ENSOLUM</b>								Sample Name: BH01		Date: 09/25/2025	
								Site Name: Big Sinks 22 Fed Battery			
								Incident Number: nAPP2518855012			
								Job Number: 03C1558723			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: JD		Method: Hand Auger	
Coordinates: 32.196582, -103.862038								Hole Diameter: 4"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included. D-Dry; N-No											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
M	<168	0.0	N	BH01	0.5	0.5	CL	Clay, red, cohesive, no staining, no odor			
D	<168	0.0	N	BH01A	1	1	CCHE	Tan caliche with silt, non-cohesive, no staining, no odor			
Total depth 1 ft bgs											
											

 <b>ENSOLUM</b>								Sample Name: SS01		Date: 09/30/2025	
								Site Name: Big Sinks 22 Fed Battery			
								Incident Number: nAPP2518855012			
								Job Number: 03C1558723			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: JD		Method: Hand Auger	
Coordinates: 32.196741, -103.862039								Hole Diameter: 4"		Total Depth: 0.5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included. D-Dry; N-No											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	224	0.3	N	SS01	0.5	0 0.5	SP	Reddish sand, poorly graded, no staining, no odor			
Total depth 0.5 ft bgs											

								Sample Name: SS02		Date: 09/30/2025	
								Site Name: Big Sinks 22 Fed Battery			
								Incident Number: nAPP2518855012			
								Job Number: 03C1558723			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: JD		Method: Hand Auger	
Coordinates: 32.196666, -103.861973								Hole Diameter: 4"		Total Depth: 0.5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included. D-Dry; N-No											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	246.4	0.0	N	SS02	0.5	0	SP	Reddish sand, poorly graded, no staining, no odor			
Total depth 0.5 ft bgs											
											



								Sample Name: SS03		Date: 09/30/2025	
								Site Name: Big Sinks 22 Fed Battery			
								Incident Number: nAPP2518855012			
								Job Number: 03C1558723			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: JD		Method: Hand Auger	
Coordinates: 32.196477, -103.862047								Hole Diameter: 4"		Total Depth: 0.5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included. D-Dry; N-No											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	<168	0.0	N	SS03	0.5	0 0.5	SP	Reddish sand, poorly graded, no staining, no odor			
Total depth 0.5 ft bgs											
											

								Sample Name: SS04		Date: 09/30/2025	
								Site Name: Big Sinks 22 Fed Battery			
								Incident Number: nAPP2518855012			
								Job Number: 03C1558723			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: JD		Method: Hand Auger	
Coordinates: 32.196616, -103.862142								Hole Diameter: 4"		Total Depth: 0.5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included. D-Dry; N-No											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	<168	0.0	N	SS04	0.5	0.5	SP	Reddish sand, poorly graded, no staining, no odor			
Total depth 0.5 ft bgs											
											



## APPENDIX D

### Laboratory Analytical Reports & Chain of Custody Documentation

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

September 29, 2025

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

RE: BIG SINKS 22 FED BATTERY - SPILLS

Enclosed are the results of analyses for samples received by the laboratory on 09/26/25 11:09.

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, flowing style.

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/26/2025  
 Reported: 09/29/2025  
 Project Name: BIG SINKS 22 FED BATTERY - SPILLS  
 Project Number: 03C1558723  
 Project Location: XTO 32.19642-103.86117

Sampling Date: 09/25/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: BH01 .5' (H256039-01)**

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	09/26/2025	ND	1.92	95.9	2.00	0.925	
Toluene*	<0.050	0.050	09/26/2025	ND	1.89	94.6	2.00	1.22	
Ethylbenzene*	<0.050	0.050	09/26/2025	ND	1.84	92.1	2.00	1.65	
Total Xylenes*	<0.150	0.150	09/26/2025	ND	5.39	89.9	6.00	1.62	
Total BTX	<0.300	0.300	09/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.4 % 70.4-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/26/2025	ND	432	108	400	3.77		

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	09/29/2025	ND	194	96.8	200	1.32	
DRO >C10-C28*	<10.0	10.0	09/29/2025	ND	204	102	200	5.34	
EXT DRO >C28-C36	<10.0	10.0	09/29/2025	ND					

Surrogate: 1-Chlorooctane 91.0 % 52.4-130

Surrogate: 1-Chlorooctadecane 97.6 % 39.9-141

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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, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/26/2025  
 Reported: 09/29/2025  
 Project Name: BIG SINKS 22 FED BATTERY - SPILLS  
 Project Number: 03C1558723  
 Project Location: XTO 32.19642-103.86117

Sampling Date: 09/25/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: BH01 1' (H256039-02)**

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	09/26/2025	ND	1.92	95.9	2.00	0.925		
Toluene*	<0.050	0.050	09/26/2025	ND	1.89	94.6	2.00	1.22		
Ethylbenzene*	<0.050	0.050	09/26/2025	ND	1.84	92.1	2.00	1.65		
Total Xylenes*	<0.150	0.150	09/26/2025	ND	5.39	89.9	6.00	1.62		
Total BTEX	<0.300	0.300	09/26/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.6 % 70.4-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	09/26/2025	ND	432	108	400	3.77		

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	09/27/2025	ND	194	96.8	200	1.32	
DRO >C10-C28*	<10.0	10.0	09/27/2025	ND	204	102	200	5.34	
EXT DRO >C28-C36	<10.0	10.0	09/27/2025	ND					

Surrogate: 1-Chlorooctane 97.1 % 52.4-130

Surrogate: 1-Chlorooctadecane 99.4 % 39.9-141

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\*=Accredited Analyte

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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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\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "C. D. Keene", is written over a horizontal line.

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Celey D. Keene, Lab Director/Quality Manager

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]





Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Tracy Hillard

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 10/2/2025 1:43:17 PM

## JOB DESCRIPTION

BIG SINKS 22 FED BATTERY

03C1558723

## JOB NUMBER

890-8893-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

# Eurofins Carlsbad

## Job Notes

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

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

## Authorization



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

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Laboratory Job ID: 890-8893-1  
SDG: 03C1558723

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Definitions/Glossary

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

## Case Narrative

Client: Ensolum  
Project: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1

**Job ID: 890-8893-1**

**Eurofins Carlsbad**

### Job Narrative 890-8893-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

#### Receipt

The samples were received on 9/30/2025 4:49 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 5.4°C.

#### Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS 01 (890-8893-1), SS 02 (890-8893-2), SS 03 (890-8893-3) and SS 04 (890-8893-4).

#### GC VOA

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

#### Diesel Range Organics

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

#### HPLC/IC

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

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## Client Sample Results

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

Client Sample ID: SS 01

Lab Sample ID: 890-8893-1

Date Collected: 09/30/25 09:46

Matrix: Solid

Date Received: 09/30/25 16:49

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		10/02/25 09:16	10/02/25 13:04	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/02/25 09:16	10/02/25 13:04	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/02/25 09:16	10/02/25 13:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/02/25 09:16	10/02/25 13:04	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/02/25 09:16	10/02/25 13:04	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/02/25 09:16	10/02/25 13:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	10/02/25 09:16	10/02/25 13:04	1
1,4-Difluorobenzene (Surr)	103		70 - 130	10/02/25 09:16	10/02/25 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			10/02/25 13:04	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			10/02/25 10:13	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		10/02/25 08:05	10/02/25 10:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/02/25 08:05	10/02/25 10:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/02/25 08:05	10/02/25 10:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	10/02/25 08:05	10/02/25 10:13	1
o-Terphenyl	115		70 - 130	10/02/25 08:05	10/02/25 10:13	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	384		9.94	mg/Kg			10/02/25 11:08	1

Client Sample ID: SS 02

Lab Sample ID: 890-8893-2

Date Collected: 09/30/25 14:55

Matrix: Solid

Date Received: 09/30/25 16:49

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		10/02/25 09:16	10/02/25 13:25	1
Toluene	<0.00202	U	0.00202	mg/Kg		10/02/25 09:16	10/02/25 13:25	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		10/02/25 09:16	10/02/25 13:25	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		10/02/25 09:16	10/02/25 13:25	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		10/02/25 09:16	10/02/25 13:25	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		10/02/25 09:16	10/02/25 13:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	10/02/25 09:16	10/02/25 13:25	1

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## Client Sample Results

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

Client Sample ID: SS 02

Lab Sample ID: 890-8893-2

Date Collected: 09/30/25 14:55

Matrix: Solid

Date Received: 09/30/25 16:49

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	10/02/25 09:16	10/02/25 13:25	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			10/02/25 13:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/02/25 11:01	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		10/02/25 08:05	10/02/25 11:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/02/25 08:05	10/02/25 11:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/02/25 08:05	10/02/25 11:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			10/02/25 08:05	10/02/25 11:01	1
o-Terphenyl	112		70 - 130			10/02/25 08:05	10/02/25 11:01	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	118		9.92	mg/Kg			10/02/25 11:14	1

Client Sample ID: SS 03

Lab Sample ID: 890-8893-3

Date Collected: 09/30/25 10:44

Matrix: Solid

Date Received: 09/30/25 16:49

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		10/02/25 09:16	10/02/25 13:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/02/25 09:16	10/02/25 13:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/02/25 09:16	10/02/25 13:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/02/25 09:16	10/02/25 13:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/02/25 09:16	10/02/25 13:45	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/02/25 09:16	10/02/25 13:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	10/02/25 09:16	10/02/25 13:45	1
1,4-Difluorobenzene (Surr)	102		70 - 130	10/02/25 09:16	10/02/25 13:45	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			10/02/25 13:45	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			10/02/25 10:13	1

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## Client Sample Results

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

## Client Sample ID: SS 03

Lab Sample ID: 890-8893-3

Date Collected: 09/30/25 10:44

Matrix: Solid

Date Received: 09/30/25 16:49

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/02/25 08:07	10/02/25 10:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/02/25 08:07	10/02/25 10:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/02/25 08:07	10/02/25 10:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			10/02/25 08:07	10/02/25 10:13	1
o-Terphenyl	99		70 - 130			10/02/25 08:07	10/02/25 10:13	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	570		9.98	mg/Kg			10/02/25 11:31	1

## Client Sample ID: SS 04

Lab Sample ID: 890-8893-4

Date Collected: 09/30/25 10:12

Matrix: Solid

Date Received: 09/30/25 16:49

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		10/02/25 09:16	10/02/25 14:05	1
Toluene	<0.00202	U	0.00202	mg/Kg		10/02/25 09:16	10/02/25 14:05	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		10/02/25 09:16	10/02/25 14:05	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		10/02/25 09:16	10/02/25 14:05	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		10/02/25 09:16	10/02/25 14:05	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		10/02/25 09:16	10/02/25 14:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			10/02/25 09:16	10/02/25 14:05	1
1,4-Difluorobenzene (Surr)	103		70 - 130			10/02/25 09:16	10/02/25 14:05	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			10/02/25 14:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			10/02/25 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		10/02/25 08:07	10/02/25 11:01	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		10/02/25 08:07	10/02/25 11:01	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		10/02/25 08:07	10/02/25 11:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			10/02/25 08:07	10/02/25 11:01	1
o-Terphenyl	99		70 - 130			10/02/25 08:07	10/02/25 11:01	1

Eurofins Carlsbad



Client Sample Results

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

**Client Sample ID: SS 04**  
Date Collected: 09/30/25 10:12  
Date Received: 09/30/25 16:49  
Sample Depth: 0.5

**Lab Sample ID: 890-8893-4**  
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	61.3		9.96	mg/Kg			10/02/25 11:37	1	

## Surrogate Summary

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

## 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)
890-8893-1	SS 01	103	103
890-8893-1 MS	SS 01	97	98
890-8893-1 MSD	SS 01	79	113
890-8893-2	SS 02	100	106
890-8893-3	SS 03	99	102
890-8893-4	SS 04	94	103
LCS 880-120288/1-A	Lab Control Sample	102	99
LCSD 880-120288/2-A	Lab Control Sample Dup	103	95
MB 880-120288/5-A	Method Blank	94	97
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8893-1	SS 01	86	115
890-8893-1 MS	SS 01	90	104
890-8893-1 MSD	SS 01	90	102
890-8893-2	SS 02	89	112
890-8893-3	SS 03	90	99
890-8893-3 MS	SS 03	95	95
890-8893-3 MSD	SS 03	96	95
890-8893-4	SS 04	92	99
LCS 880-120258/2-A	Lab Control Sample	83	96
LCS 880-120259/2-A	Lab Control Sample	99	99
LCSD 880-120258/3-A	Lab Control Sample Dup	91	103
LCSD 880-120259/3-A	Lab Control Sample Dup	98	102
MB 880-120258/1-A	Method Blank	94	121
MB 880-120259/1-A	Method Blank	104	111
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

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

Lab Sample ID: MB 880-120288/5-A

Matrix: Solid

Analysis Batch: 120261

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 120288

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/02/25 09:16	10/02/25 12:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/02/25 09:16	10/02/25 12:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/02/25 09:16	10/02/25 12:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/02/25 09:16	10/02/25 12:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/02/25 09:16	10/02/25 12:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/02/25 09:16	10/02/25 12:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	10/02/25 09:16	10/02/25 12:43	1
1,4-Difluorobenzene (Surr)	97		70 - 130	10/02/25 09:16	10/02/25 12:43	1

Lab Sample ID: LCS 880-120288/1-A

Matrix: Solid

Analysis Batch: 120261

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 120288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09525		mg/Kg		95	70 - 130
Toluene	0.100	0.09372		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09640		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1904		mg/Kg		95	70 - 130
o-Xylene	0.100	0.09814		mg/Kg		98	70 - 130

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

Lab Sample ID: LCSD 880-120288/2-A

Matrix: Solid

Analysis Batch: 120261

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 120288

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09524		mg/Kg		95	70 - 130	0	35
Toluene	0.100	0.09381		mg/Kg		94	70 - 130	0	35
Ethylbenzene	0.100	0.09570		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1903		mg/Kg		95	70 - 130	0	35
o-Xylene	0.100	0.09287		mg/Kg		93	70 - 130	6	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-8893-1 MS

Matrix: Solid

Analysis Batch: 120261

Client Sample ID: SS 01

Prep Type: Total/NA

Prep Batch: 120288

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.100	0.07965		mg/Kg		80	70 - 130
Toluene	<0.00199	U	0.100	0.07845		mg/Kg		78	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

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

Lab Sample ID: 890-8893-1 MS

Matrix: Solid

Analysis Batch: 120261

Client Sample ID: SS 01

Prep Type: Total/NA

Prep Batch: 120288

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.100	0.08148		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1616		mg/Kg		81	70 - 130
o-Xylene	<0.00199	U	0.100	0.07909		mg/Kg		79	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 890-8893-1 MSD

Matrix: Solid

Analysis Batch: 120261

Client Sample ID: SS 01

Prep Type: Total/NA

Prep Batch: 120288

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.1072		mg/Kg		107	70 - 130	30	35
Toluene	<0.00199	U	0.100	0.08126		mg/Kg		81	70 - 130	4	35
Ethylbenzene	<0.00199	U	0.100	0.07953		mg/Kg		80	70 - 130	2	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1488		mg/Kg		74	70 - 130	8	35
o-Xylene	<0.00199	U	0.100	0.07315		mg/Kg		73	70 - 130	8	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	79		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

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

Lab Sample ID: MB 880-120258/1-A

Matrix: Solid

Analysis Batch: 120282

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 120258

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		10/02/25 08:05	10/02/25 04:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/02/25 08:05	10/02/25 04:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/02/25 08:05	10/02/25 04:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	10/02/25 08:05	10/02/25 04:32	1
o-Terphenyl	121		70 - 130	10/02/25 08:05	10/02/25 04:32	1

Lab Sample ID: LCS 880-120258/2-A

Matrix: Solid

Analysis Batch: 120282

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 120258

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	708.4		mg/Kg		71	70 - 130
Diesel Range Organics (Over C10-C28)	1000	834.5		mg/Kg		83	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

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

Lab Sample ID: LCS 880-120258/2-A

Matrix: Solid

Analysis Batch: 120282

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 120258

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-120258/3-A

Matrix: Solid

Analysis Batch: 120282

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 120258

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	820.6		mg/Kg		82	70 - 130	15	20
Diesel Range Organics (Over C10-C28)			1000	904.3		mg/Kg		90	70 - 130	8	20
Surrogate		LCSD	LCSD								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	91		70 - 130								
o-Terphenyl	103		70 - 130								

Lab Sample ID: 890-8893-1 MS

Matrix: Solid

Analysis Batch: 120282

Client Sample ID: SS 01

Prep Type: Total/NA

Prep Batch: 120258

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	997	764.1		mg/Kg		77	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	997	798.3		mg/Kg		78	70 - 130		
Surrogate		MS	MS								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	90		70 - 130								
o-Terphenyl	104		70 - 130								

Lab Sample ID: 890-8893-1 MSD

Matrix: Solid

Analysis Batch: 120282

Client Sample ID: SS 01

Prep Type: Total/NA

Prep Batch: 120258

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	737.9		mg/Kg		74	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	735.7		mg/Kg		72	70 - 130	8	20
Surrogate		MSD	MSD								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	90		70 - 130								
o-Terphenyl	102		70 - 130								

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## QC Sample Results

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

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

Lab Sample ID: MB 880-120259/1-A

Matrix: Solid

Analysis Batch: 120284

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 120259

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		10/02/25 08:07	10/02/25 04:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/02/25 08:07	10/02/25 04:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/02/25 08:07	10/02/25 04:32	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			10/02/25 08:07	10/02/25 04:32	1
o-Terphenyl	111		70 - 130			10/02/25 08:07	10/02/25 04:32	1

Lab Sample ID: LCS 880-120259/2-A

Matrix: Solid

Analysis Batch: 120284

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 120259

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	809.8		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	1000	829.0		mg/Kg		83	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	99		70 - 130				
o-Terphenyl	99		70 - 130				

Lab Sample ID: LCSD 880-120259/3-A

Matrix: Solid

Analysis Batch: 120284

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 120259

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	807.9		mg/Kg		81	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	830.2		mg/Kg		83	70 - 130	0	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	98		70 - 130						
o-Terphenyl	102		70 - 130						

Lab Sample ID: 890-8893-3 MS

Matrix: Solid

Analysis Batch: 120284

Client Sample ID: SS 03

Prep Type: Total/NA

Prep Batch: 120259

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	766.4		mg/Kg		77	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	999	773.6		mg/Kg		77	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

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

Lab Sample ID: 890-8893-3 MS

Matrix: Solid

Analysis Batch: 120284

Client Sample ID: SS 03

Prep Type: Total/NA

Prep Batch: 120259

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

Lab Sample ID: 890-8893-3 MSD

Matrix: Solid

Analysis Batch: 120284

Client Sample ID: SS 03

Prep Type: Total/NA

Prep Batch: 120259

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	767.0		mg/Kg		77	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	768.1		mg/Kg		77	70 - 130	1	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	95		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-120256/1-A

Matrix: Solid

Analysis Batch: 120287

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	<10.0	U	10.0	mg/Kg			10/02/25 08:46	1		

Lab Sample ID: LCS 880-120256/2-A

Matrix: Solid

Analysis Batch: 120287

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	250	254.6		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-120256/3-A

Matrix: Solid

Analysis Batch: 120287

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	246.5		mg/Kg		99	90 - 110	3	20

Lab Sample ID: 880-63342-A-7-B MS

Matrix: Solid

Analysis Batch: 120287

Client Sample ID: Matrix Spike

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	346		249	587.6		mg/Kg		97	90 - 110		

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QC Sample Results

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-63342-A-7-C MSD					Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid					Prep Type: Soluble							
Analysis Batch: 120287												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	346		249	582.3		mg/Kg		95	90 - 110	1	20	

## QC Association Summary

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

## GC VOA

## Analysis Batch: 120261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8893-1	SS 01	Total/NA	Solid	8021B	120288
890-8893-2	SS 02	Total/NA	Solid	8021B	120288
890-8893-3	SS 03	Total/NA	Solid	8021B	120288
890-8893-4	SS 04	Total/NA	Solid	8021B	120288
MB 880-120288/5-A	Method Blank	Total/NA	Solid	8021B	120288
LCS 880-120288/1-A	Lab Control Sample	Total/NA	Solid	8021B	120288
LCSD 880-120288/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	120288
890-8893-1 MS	SS 01	Total/NA	Solid	8021B	120288
890-8893-1 MSD	SS 01	Total/NA	Solid	8021B	120288

## Prep Batch: 120288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8893-1	SS 01	Total/NA	Solid	5035	
890-8893-2	SS 02	Total/NA	Solid	5035	
890-8893-3	SS 03	Total/NA	Solid	5035	
890-8893-4	SS 04	Total/NA	Solid	5035	
MB 880-120288/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-120288/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-120288/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-8893-1 MS	SS 01	Total/NA	Solid	5035	
890-8893-1 MSD	SS 01	Total/NA	Solid	5035	

## Analysis Batch: 120366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8893-1	SS 01	Total/NA	Solid	Total BTEX	
890-8893-2	SS 02	Total/NA	Solid	Total BTEX	
890-8893-3	SS 03	Total/NA	Solid	Total BTEX	
890-8893-4	SS 04	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 120258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8893-1	SS 01	Total/NA	Solid	8015NM Prep	
890-8893-2	SS 02	Total/NA	Solid	8015NM Prep	
MB 880-120258/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-120258/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-120258/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-8893-1 MS	SS 01	Total/NA	Solid	8015NM Prep	
890-8893-1 MSD	SS 01	Total/NA	Solid	8015NM Prep	

## Prep Batch: 120259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8893-3	SS 03	Total/NA	Solid	8015NM Prep	
890-8893-4	SS 04	Total/NA	Solid	8015NM Prep	
MB 880-120259/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-120259/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-120259/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-8893-3 MS	SS 03	Total/NA	Solid	8015NM Prep	
890-8893-3 MSD	SS 03	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

## GC Semi VOA

## Analysis Batch: 120282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8893-1	SS 01	Total/NA	Solid	8015B NM	120258
890-8893-2	SS 02	Total/NA	Solid	8015B NM	120258
MB 880-120258/1-A	Method Blank	Total/NA	Solid	8015B NM	120258
LCS 880-120258/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	120258
LCSD 880-120258/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	120258
890-8893-1 MS	SS 01	Total/NA	Solid	8015B NM	120258
890-8893-1 MSD	SS 01	Total/NA	Solid	8015B NM	120258

## Analysis Batch: 120284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8893-3	SS 03	Total/NA	Solid	8015B NM	120259
890-8893-4	SS 04	Total/NA	Solid	8015B NM	120259
MB 880-120259/1-A	Method Blank	Total/NA	Solid	8015B NM	120259
LCS 880-120259/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	120259
LCSD 880-120259/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	120259
890-8893-3 MS	SS 03	Total/NA	Solid	8015B NM	120259
890-8893-3 MSD	SS 03	Total/NA	Solid	8015B NM	120259

## Analysis Batch: 120357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8893-1	SS 01	Total/NA	Solid	8015 NM	
890-8893-2	SS 02	Total/NA	Solid	8015 NM	
890-8893-3	SS 03	Total/NA	Solid	8015 NM	
890-8893-4	SS 04	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 120256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8893-1	SS 01	Soluble	Solid	DI Leach	
890-8893-2	SS 02	Soluble	Solid	DI Leach	
890-8893-3	SS 03	Soluble	Solid	DI Leach	
890-8893-4	SS 04	Soluble	Solid	DI Leach	
MB 880-120256/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-120256/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-120256/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-63342-A-7-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-63342-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 120287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8893-1	SS 01	Soluble	Solid	300.0	120256
890-8893-2	SS 02	Soluble	Solid	300.0	120256
890-8893-3	SS 03	Soluble	Solid	300.0	120256
890-8893-4	SS 04	Soluble	Solid	300.0	120256
MB 880-120256/1-A	Method Blank	Soluble	Solid	300.0	120256
LCS 880-120256/2-A	Lab Control Sample	Soluble	Solid	300.0	120256
LCSD 880-120256/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	120256
880-63342-A-7-B MS	Matrix Spike	Soluble	Solid	300.0	120256
880-63342-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	120256

Eurofins Carlsbad

## Lab Chronicle

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

Client Sample ID: SS 01

Lab Sample ID: 890-8893-1

Date Collected: 09/30/25 09:46

Matrix: Solid

Date Received: 09/30/25 16:49

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	120288	10/02/25 09:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	120261	10/02/25 13:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			120366	10/02/25 13:04	SA	EET MID
Total/NA	Analysis	8015 NM		1			120357	10/02/25 10:13	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	120258	10/02/25 08:05	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	120282	10/02/25 10:13	FC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	120256	10/02/25 07:53	SA	EET MID
Soluble	Analysis	300.0		1			120287	10/02/25 11:08	CS	EET MID

Client Sample ID: SS 02

Lab Sample ID: 890-8893-2

Date Collected: 09/30/25 14:55

Matrix: Solid

Date Received: 09/30/25 16:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	120288	10/02/25 09:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	120261	10/02/25 13:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			120366	10/02/25 13:25	SA	EET MID
Total/NA	Analysis	8015 NM		1			120357	10/02/25 11:01	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	120258	10/02/25 08:05	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	120282	10/02/25 11:01	FC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	120256	10/02/25 07:53	SA	EET MID
Soluble	Analysis	300.0		1			120287	10/02/25 11:14	CS	EET MID

Client Sample ID: SS 03

Lab Sample ID: 890-8893-3

Date Collected: 09/30/25 10:44

Matrix: Solid

Date Received: 09/30/25 16:49

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	120288	10/02/25 09:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	120261	10/02/25 13:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			120366	10/02/25 13:45	SA	EET MID
Total/NA	Analysis	8015 NM		1			120357	10/02/25 10:13	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	120259	10/02/25 08:07	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	120284	10/02/25 10:13	FC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	120256	10/02/25 07:53	SA	EET MID
Soluble	Analysis	300.0		1			120287	10/02/25 11:31	CS	EET MID

Client Sample ID: SS 04

Lab Sample ID: 890-8893-4

Date Collected: 09/30/25 10:12

Matrix: Solid

Date Received: 09/30/25 16:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	120288	10/02/25 09:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	120261	10/02/25 14:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			120366	10/02/25 14:05	SA	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

Client Sample ID: SS 04  
Date Collected: 09/30/25 10:12  
Date Received: 09/30/25 16:49

Lab Sample ID: 890-8893-4  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			120357	10/02/25 11:01	SA	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	120259	10/02/25 08:07	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	120284	10/02/25 11:01	FC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	120256	10/02/25 07:53	SA	EET MID
Soluble	Analysis	300.0		1			120287	10/02/25 11:37	CS	EET MID

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

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Accreditation/Certification Summary

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

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	06-30-26
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: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

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

**Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

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

Sample Summary

Client: Ensolum  
Project/Site: BIG SINKS 22 FED BATTERY

Job ID: 890-8893-1  
SDG: 03C1558723

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8893-1	SS 01	Solid	09/30/25 09:46	09/30/25 16:49	0.5
890-8893-2	SS 02	Solid	09/30/25 14:55	09/30/25 16:49	0.5
890-8893-3	SS 03	Solid	09/30/25 10:44	09/30/25 16:49	0.5
890-8893-4	SS 04	Solid	09/30/25 10:12	09/30/25 16:49	0.5

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Environment Testing  
Xenco

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

Chain of Custody

Work Order No: \_\_\_\_\_

www.xenco.com Page 1 of 1

Project Manager:	Tracy Hillard	Bill to: (if different)	Colton Brown
Company Name:	Ensolum	Company Name:	XTO Energy, Inc
Address:	3122 National Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	432-296-0627	Email:	khomason, Tmorrissey, Thillard, Jreich, Bbellill @ensolum.com

Program: <input checked="" type="checkbox"/> UST/PST <input type="checkbox"/> RP <input type="checkbox"/> rownfields <input type="checkbox"/> KC <input type="checkbox"/> perfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	



890-8893 Chain of Custody

Project Name:	Big Sinks 22 Fed Battery	Turn Around	Pres. Code	ANALYSIS REQUEST		Preservative Codes
Project Number:	03C1558723	<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush				None: NO DI Water: H <sub>2</sub> O
Project Location:	32.19642,-103.86117	Due Date:	24hr			Cool: Cool MeOH: Me
Sampler's Name:	Evan roe	TAT starts the day received by the lab, if received by 4:30pm				HCL: HC HNO <sub>3</sub> : HN
PO #:		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na
SAMPLE RECEIPT		Thermometer ID:				H <sub>3</sub> PO <sub>4</sub> : HP
Samples Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:				NaHSO <sub>4</sub> : NABIS
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading:				Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Corrected Temperature:				Zn Acetate+NaOH: Zn
Total Containers:						NaOH+Ascorbic Acid: SAPC
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont
SS01	Soil	9/30/2025	14:46	0.5	Grab	1
SS02	Soil	9/30/2025	14:55	0.5	Grab	1
SS03	Soil	9/30/2025	10:44	0.5	Grab	1
SS04	Soil	9/30/2025	10:12	0.5	Grab	1
CHLORIDES (EPA: 300.0)						
TPH						
BTX						
Sample Comments						
Incident ID: nAPP251885012						
CC: 1080991001						
GFCM: 48605000						

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 <sub>2</sub> Na Sr Ti 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 Ti 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)
1 <i>Evan R</i>	2 <i>Evan R</i>	9/30/16 4:19	3 <i>Evan R</i>
3			4
5			6

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-8893-1

SDG Number: 03C1558723

Login Number: 8893

List Number: 1

Creator: Bruns, Shannon

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: 890-8893-1

SDG Number: 03C1558723

Login Number: 8893

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 10/02/25 07:44 AM

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





## APPENDIX E

### Volume Calculation and NMOCD Correspondence

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<b>Location:</b>	<b>BIG SINKS 22 FED BATTERY</b>	
<b>Spill Date:</b>	<b>7/3/2025</b>	
<b>OCD #</b>	<b>NAPP2518855012</b>	
<b>Area 1 (surface)</b>		
Approximate Area =		sq. ft.
Average Saturation (or depth) of spill =		inches
Average Porosity Factor =	0.00	
Volume of spill in Area 1	0.00	bbls
<b>Area 2 (containment)</b>		
Approximate Area =	1944.00	sq. ft.
Average depth of spill =	0.35	inches
Volume of spill in Area 2	10.10	bbls
<b>TOTAL VOLUME OF LEAK</b>		
<b>Total Crude Oil =</b>	<b>0.00</b>	<b>bbls</b>
<b>Total Produced Water =</b>	<b>10.10</b>	<b>bbls</b>
<b>TOTAL VOLUME RECOVERED</b>		
<b>Total Crude Oil =</b>	<b>0.00</b>	<b>bbls</b>
<b>Total Produced Water =</b>	<b>10.00</b>	<b>bbls</b>

**Hadlie Green**

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**From:** Tracy Hillard  
**Sent:** Wednesday, November 5, 2025 9:48 AM  
**To:** Hadlie Green  
**Cc:** Tacoma Morrissey  
**Subject:** FW: (Extension Approval) - XTO - Status Update - Big Sinks 22 Fed Battery - Incident Number nAPP2518855012



**Tracy Hillard**  
Project Engineer  
575-937-3906  
Ensolum, LLC  
in f X

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**From:** Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>  
**Sent:** Wednesday, October 1, 2025 4:33 PM  
**To:** robert.d.woodall@exxonmobil.com  
**Cc:** richard.kotzur@exxonmobil.com; Tacoma Morrissey <tmorrissey@ensolum.com>; Ben Belill <bbelill@ensolum.com>; Jeremy Reich <jreich@ensolum.com>; Tracy Hillard <thillard@ensolum.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Subject:** (Extension Approval) - XTO - Status Update - Big Sinks 22 Fed Battery - Incident Number nAPP2518855012

[ \*\*EXTERNAL EMAIL\*\* ]

RE: Incident #NAPP2518855012 BIG SINKS 22 FED BATTERY

**Robert,**

A 90-day extension is approved. Please have a remediation closure report uploaded to the OCD Permitting Portal no later than **December 30th, 2025**. Include this e-mail correspondence in the report.

**Robert Hamlet** • Environmental Specialist - Advanced  
Environmental Bureau  
EMNRD - Oil Conservation Division  
506 W. Texas Ave. | Artesia, NM 88210  
575.909.0302 | [robert.hamlet@emnrd.nm.gov](mailto:robert.hamlet@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>



---

**From:** Wells, Shelly, EMNRD <[Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)>  
**Sent:** Wednesday, October 1, 2025 1:06 PM  
**To:** Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>  
**Cc:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>  
**Subject:** FW: [EXTERNAL] FW: XTO - Status Update - Big Sinks 22 Fed Battery - Incident Number nAPP2518855012

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**From:** Woodall, Robert D <[robert.d.woodall@exxonmobil.com](mailto:robert.d.woodall@exxonmobil.com)>  
**Sent:** Wednesday, October 1, 2025 12:07 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Kotzur, Richard <[richard.kotzur@exxonmobil.com](mailto:richard.kotzur@exxonmobil.com)>; Tacoma Morrissey <[tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com)>; Ben Belill <[bbelill@ensolum.com](mailto:bbelill@ensolum.com)>; Jeremy Reich <[jreich@ensolum.com](mailto:jreich@ensolum.com)>; Tracy Hillard <[thillard@ensolum.com](mailto:thillard@ensolum.com)>  
**Subject:** [EXTERNAL] FW: XTO - Status Update - Big Sinks 22 Fed Battery - Incident Number nAPP2518855012

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

XTO is providing a remediation status update for a produced water release that occurred at the Big Sinks 22 Fed Battery (Incident Number nAPP2518855012). The release occurred on July 3, 2025. Access to the lined containment for an integrity inspection was delayed due to simultaneous operations (SIMOPS). Liner integrity inspection and delineation activities were conducted between August and September 2025. Laboratory analytical results are still pending. To allow time to review the laboratory analytical results and potentially complete any additional remediation activities, XTO requests a 90-day extension until December 30, 2025.

R. Dale Woodall  
Project Manager

ExxonMobil Environmental and Property Solutions Company  
3104 E. Greene Street  
Carlsbad, NM 88220  
Cell Phone: 575-988-4374  
[Robert.D.Woodall@ExxonMobil.com](mailto:Robert.D.Woodall@ExxonMobil.com)

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 530183

**QUESTIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 530183
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

Prerequisites	
Incident ID (n#)	nAPP2518855012
Incident Name	NAPP2518855012 BIG SINKS 22 FED BATTERY @ P-22-24S-30E
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received

**Location of Release Source**

Please answer all the questions in this group.

Site Name	BIG SINKS 22 FED BATTERY
Date Release Discovered	07/03/2025
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   Treating Tower   Produced Water   Released: 10 BBL   Recovered: 10 BBL   Lost: 0 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)	10 bbls of produced water were released in lined containment, all fluids were recovered

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, Page 2

Action 530183

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 530183
	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)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
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.	

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

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: Richard Kotzur Title: Senior Project Manager Email: NMEnvNotifications@exxonmobil.com Date: 11/26/2025
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QUESTIONS, Page 3

Action 530183

**QUESTIONS (continued)**

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  530183
	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 ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
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 ½ and 1 (mi.)
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)	570
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
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	08/26/2025
On what date will (or did) the final sampling or liner inspection occur	09/30/2025
On what date will (or was) the remediation complete(d)	09/30/2025
What is the estimated surface area (in square feet) that will be reclaimed	1945
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	1945
What is the estimated volume (in cubic yards) that will be remediated	0
<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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QUESTIONS, Page 4

Action 530183

**QUESTIONS (continued)**

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  530183
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**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.)	No
(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)	Yes
Other Non-listed Remedial Process. Please specify	No impacted soil identified
<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: Richard Kotzur Title: Senior Project Manager Email: NMEnvNotifications@exxonmobil.com Date: 11/26/2025
<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 530183

QUESTIONS (continued)

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  530183
	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 530183

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 530183
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	507245
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/26/2025
What was the (estimated) number of samples that were to be gathered	15
What was the sampling surface area in square feet	3000

**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	1945
What was the total volume (cubic yards) remediated	0
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	1945
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	Liner integrity inspection and delineation activities were conducted at the Site following the July 3, 2025, release of produced water. Laboratory analytical results for the delineation soil samples, collected in the liner tear and around the lined containment, indicated all COC concentrations were compliant with the strictest Table I Closure Criteria. The liner tears where BH01 was advanced, were immediately patched following the completion of delineation activities to restore spill control measures. Delineation at the Site confirmed the absence of impacted and waste-containing soil. Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the Site. Based on initial response efforts and the liner operating as designed, XTO respectfully requests closure for Incident Number nAPP2518855012.
<i>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>	
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: Richard Kotzur Title: Senior Project Manager Email: NMEnvNotifications@exxonmobil.com Date: 11/26/2025

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QUESTIONS, Page 7

Action 530183

QUESTIONS (continued)

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	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 530183

CONDITIONS

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  530183
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #nAPP2518855012 BIG SINKS 22 FED BATTERY, thank you. This Remediation Closure Report is approved.	12/26/2025