

# Amended Remediation Summary & Deferral Request


## Mewbourne Oil Company Delaware Ranch SWD #1


Eddy County, New Mexico  
Unit Letter "P", Section 11, Township 26 South, Range 28 East  
Latitude 32.05162 North, Longitude 104.05137 West  
NMOCD Reference No. nAPP2521351232

Prepared By:

**Etech Environmental & Safety Solutions, Inc.**  
6309 Indiana Ave, Ste. D  
Lubbock, Texas 79413

February 18, 2026

  
Ben J. Arguijo

  
Lance Crenshaw



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### 1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Mewbourne Oil Company, has prepared this *Amended Remediation Summary & Deferral Request* for the release site known as the Delaware Ranch SWD #1 (Site). Details of the release are summarized below:

<b>Location of Release Source</b>				
Latitude: <u>32.05162</u>		Longitude: <u>-104.05137</u>		
Provided GPS are in WGS84 format.				
Site Name: <u>Delaware Ranch SWD #1</u>		Site Type: <u>Pipeline</u>		
Date Release Discovered: <u>7/18/2025</u>		API # (if applicable): <u>N/A</u>		
Unit Letter	Section	Township	Range	County
"P"	11	26S	28E	Eddy
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Private (Name <u>Delaware Ranch, Inc.</u> )				
<b>Nature and Volume of Release</b>				
<input type="checkbox"/> Crude Oil	Volume Released (bbls)		Volume Recovered (bbls)	
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) <u>69</u>		Volume Recovered (bbls) <u>40</u>	
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/L?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released		Volume/Weight Recovered	
Cause of Release: <u>Equipment failure - Pipeline</u>				
<b>Initial Response</b>				
<input checked="" type="checkbox"/> The source of the release has been stopped.				
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.				
<input checked="" type="checkbox"/> Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices				
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.				

Previously submitted portions of the New Mexico Oil Conservation Division (NMOCD) Form C-141 are available in the NMOCD Permitting system.

## 2.0 SITE CHARACTERIZATION

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (bgs)?	Between 100 and 500 (ft.)
What method was used to determine the depth to groundwater?	NM OSE iWaters Database Search
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
What is the minimum distance between the closest lateral extents of the release and the following surface areas?	
A continuously flowing watercourse or any other significant watercourse?	Between 1,000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	Between 1,000 (ft.) and ½ (mi.)
An occupied permanent residence, school, hospital, institution or church?	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	Between 1,000 (ft.) and ½ (mi.)
Any other fresh water well or spring?	Between 1,000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field?	Greater than 5 (mi.)
A wetland?	Between 1,000 (ft.) and ½ (mi.)
A subsurface mine?	Greater than 5 (mi.)
A (non-karst) unstable area?	Between 1,000 (ft.) and ½ (mi.)
Categorize the risk of this well/site being in a karst geology.	Low
A 100-year floodplain?	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided in Appendix A.

Additional NMSLO and NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) and Fish and Wildlife Services (FWS) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted in Figures 1, 2A, 2B, and 3.

A karst study of the affected area was conducted by a third-party environmental contractor on August 4, 2025. According to the *Environmental Karst Study Report* dated August 19, 2025, "No surface karst features exist within 200 feet (61-meters) of the spill delineation boundary. No anomalies consistent with subsurface air- or water-filled voids were found within the DRS1 geophysical survey area, indicating the zone beneath the geophysical survey is not subject to collapse. Well layered stratigraphy is interpreted to exist beneath the area where the geophysical survey was conducted, indicating stable ground within the 200-foot survey boundary." The karst study report is provided as Appendix E.

## 3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater, and NMOCD Siting Criteria, the Closure Criteria for the Site are as listed in the table on the following page.

## Closure Criteria for Soils Impacted by a Release

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†
Between 100 and 500 (ft.)	Chloride (Cl-)	EPA** 300.0 or SM4500 Cl B	20,000
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	2,500
	Gas Range Organics + Diesel Range Organics (GRO+DRO)	EPA SW-846 Method 8015M	1,000
	Benzene	EPA SW-846 Methods 8021b or 8260b	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50

\* Measured in milligrams per kilogram (mg/kg)

\*\* Environmental Protection Agency

† Table I, Section 19.15.29.12 NMAC

#### 4.0 REMEDIATION ACTIVITIES SUMMARY

On August 22, 2025, Etech commenced remediation activities at the Site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the Closure Criteria was excavated to the extent practicable and stockpiled on-site, pending transfer to an NMOCD-permitted surface waste facility for disposal. Olfactory/visual senses and/or a chloride test kit were utilized to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. The sidewalls and floor of the excavation were advanced until field tests and field observations suggested that BTEX, TPH, and chloride concentrations were below the applicable Closure Criteria. Representative five-point composite confirmation soil samples were collected every 200 square feet from the sidewalls and floor of the excavated area to be submitted for laboratory analysis.

On August 25, 2025, Etech collected 35 confirmation soil samples (FL 1 @ 3" through FL 32 @ 3", NW, SW, and WW) from the floor and sidewalls of the excavated area. The soil samples were submitted to a certified, commercial laboratory ("the laboratory") for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that benzene, total BTEX, and TPH concentrations were below the applicable Closure Criteria in each of the submitted soil samples. GRO+DRO concentrations exceeded the Closure Criterion in soil sample FL 9 @ 3". Chloride concentrations exceeded the Closure Criterion in samples FL 24 @ 3" and FL 25 @ 3". Based on these laboratory analytical results, the excavation was subsequently further advanced in the areas characterized by samples FL 9 @ 3", FL 24 @ 3", and FL 25 @ 3".

On August 25, 2025, Etech also advanced a test trench (DEF) within the release margins in an effort to further characterize the affected area adjacent to and/or beneath on-site production equipment (i.e., tanks, electrical facilities, piping, appurtenances, etc.) requiring deferral of remediation (henceforth, "Deferral Area"). During the advancement of the trench, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit and/or the presence of VOCs utilizing olfactory/visual senses. The trench was advanced in one (1) foot increments until field observations and field test data suggested that BTEX, TPH, and chloride concentrations were below the NMOCD Reclamation Standards of 100 mg/kg TPH and 600 mg/kg chloride.

Based on field observations and field test data, seven (7) deferral characterization soil samples (DEF @ SUR, DEF @ 1', DEF @ 2', DEF @ 3', DEF @ 4', DEF @ 5', and DEF @ 6') were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that the vertical extent of impacted soil was adequately defined and did not extend beyond five (5) feet bgs.

On August 27, 2025, Etech collected three (3) confirmation soil samples (FL 9 @ 6", FL 24 @ 6", and FL 25 @ 6") from the floor of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that benzene, total BTEX, TPH, and chloride concentrations were below the applicable Closure Criteria in each of the submitted soil samples.

The final dimensions of the excavated area were approximately 200 feet in length, 18 to 70 feet in width, and three (3) to six (6) inches in depth. During the course of remediation activities, Etech transported approximately 50 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 60 cubic yards of non-impacted material from the to the Site for use as backfill.

On October 16, 2025, based on laboratory analytical results and field activities conducted to that point, a *Remediation Summary & Deferral Request* was submitted to the NMOCD requesting deferral of remediation in the Deferral Area. The request was denied on December 17, 2025, due to inconsistencies in the C-141 application (specifically, a conflict between the answers provided and the attachments submitted) and the Deferral Area not having been fully delineated.

On December 18, 2025, Etech revisited the Site and advanced three (3) hand-augered soil borings (DEF 2, DEF 3, and DEF 4) to further investigate the extent of impacted soil in the Deferral Area. During the advancement of the soil borings, soil samples were collected and field-screened utilizing olfactory/visual senses and/or a chloride test kit. The borings were advanced in one (1) foot increments until field observations and field test data suggested that BTEX, TPH, and chloride concentrations were below the NMOCD Reclamation Standards of 100 mg/kg TPH and 600 mg/kg chloride.

Based on field observations and field test data, three (3) deferral characterization soil samples (DEF 2 @ 2', DEF 3 @ 3', and DEF 4 @ 2') were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that BTEX, TPH, and chloride concentrations were below the applicable Closure Criteria and Reclamation Standards in each of the submitted soil samples, and the horizontal and vertical extent of impacted soil in the Deferral Area was adequately defined.

Soil sample locations and the extents of the excavated area and the Deferral Area are depicted in Figure 4, "Sample Location Map." Soil chemistry data is summarized in Table 1. Field data is provided in Appendix B. General photographs of the Site are provided in Appendix C. Laboratory analytical reports are provided in Appendix D. Copies of all regulatory correspondence are provided in Appendix F.

## **5.0 DEFERRAL REQUEST**

Remediation activities were conducted in accordance with applicable NMOCD regulatory guidelines. Impacted soil affected above the Closure Criteria was excavated to the extent practicable and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate that in-situ concentrations of BTEX, TPH, and chloride in the excavated area are below the applicable Closure Criteria. Remediation of impacted soil affected above the Closure Criteria remaining in-situ in the Deferral Area will be completed upon decommissioning and abandonment of the facility, in accordance with Sections 19.15.29.12 and 19.15.29.13 NMAC.

## **6.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN**

Upon receipt of all confirmation soil sample results, areas affected by remediation and closure activities were restored to the condition that existed prior to the release, to the extent practicable. The excavation was backfilled with non-impacted, "like" material sourced from the nearby Battle Axe Ranch borrow pit and emplaced at or near original relative positions. The affected areas were compacted and contoured to achieve erosion control, stability, and preservation of surface water flow, to the extent practicable.

On October 7, 2025, a 5-point composite soil sample (Backfill Pit) was collected at the Battle Axe Ranch Pit to ensure that material obtained from therein was suitable for use as backfill at remediation/reclamation sites in the area. The soil sample was submitted to the laboratory for analysis of BTEX, TPH, and chloride concentrations. Laboratory analytical results indicated that BTEX, TPH, and chloride concentrations were below the applicable Closure Criteria for the Site and NMOCD Reclamation Standards (600 mg/kg chloride and 100 mg/kg TPH), confirming that material obtained from the Battle Axe Ranch Pit was acceptable for use as backfill.

The release was limited to the production pad of an active tank battery and did not impact the adjacent pasture. Final reclamation and revegetation will be conducted upon decommissioning and abandonment of the facility. The reclaimed area will be revegetated with an agency and/or landowner-approved seed mix during the first favorable growing season following closure of the facility. The seed mix will be certified as weed-free and installed at the prescribed rate utilizing either a seed drill or a broadcaster and harrow.

## **7.0 LIMITATIONS**

Etech Environmental & Safety Solutions, Inc., has prepared this *Amended Remediation Summary & Deferral Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Mewbourne Oil Company. Use of the information contained in this report is prohibited without the consent of Etech and/or Mewbourne Oil Company.

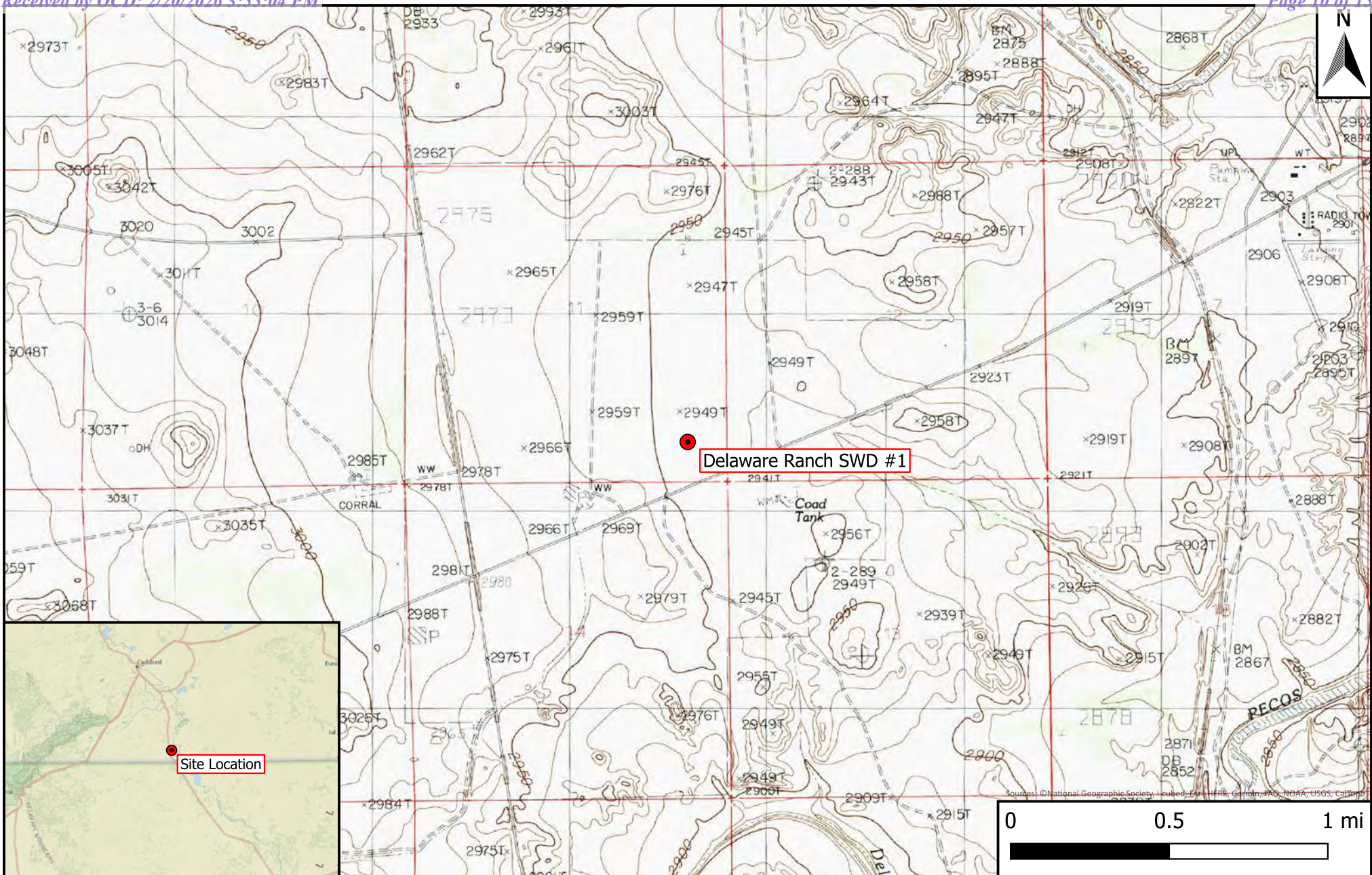
## **8.0 DISTRIBUTION**

*Mewbourne Oil Company  
4801 Business Park Blvd.  
Hobbs, NM 88240*

*New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division, District 2  
811 S. First Street  
Artesia, NM 88210*

*(Electronic Submission)*

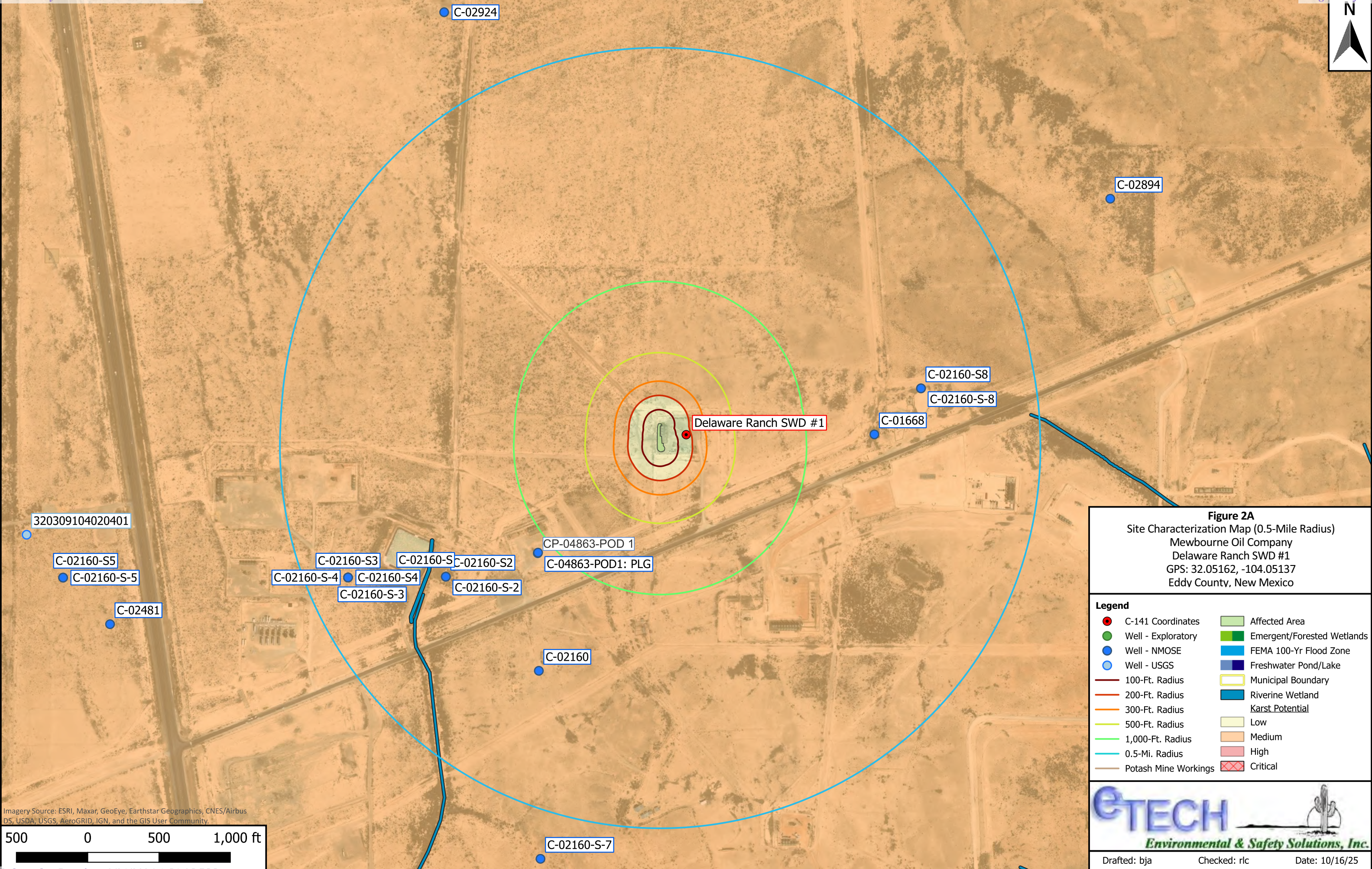
## **Figures**



**Legend**  
 ● Site Location

**Figure 1**  
 Site Location Map  
 Mewbourne Oil Company  
 Delaware Ranch SWD #1  
 GPS: 32.05162, -104.05137  
 Eddy County, New Mexico





**Figure 2A**  
 Site Characterization Map (0.5-Mile Radius)  
 Mewbourne Oil Company  
 Delaware Ranch SWD #1  
 GPS: 32.05162, -104.05137  
 Eddy County, New Mexico

**Legend**

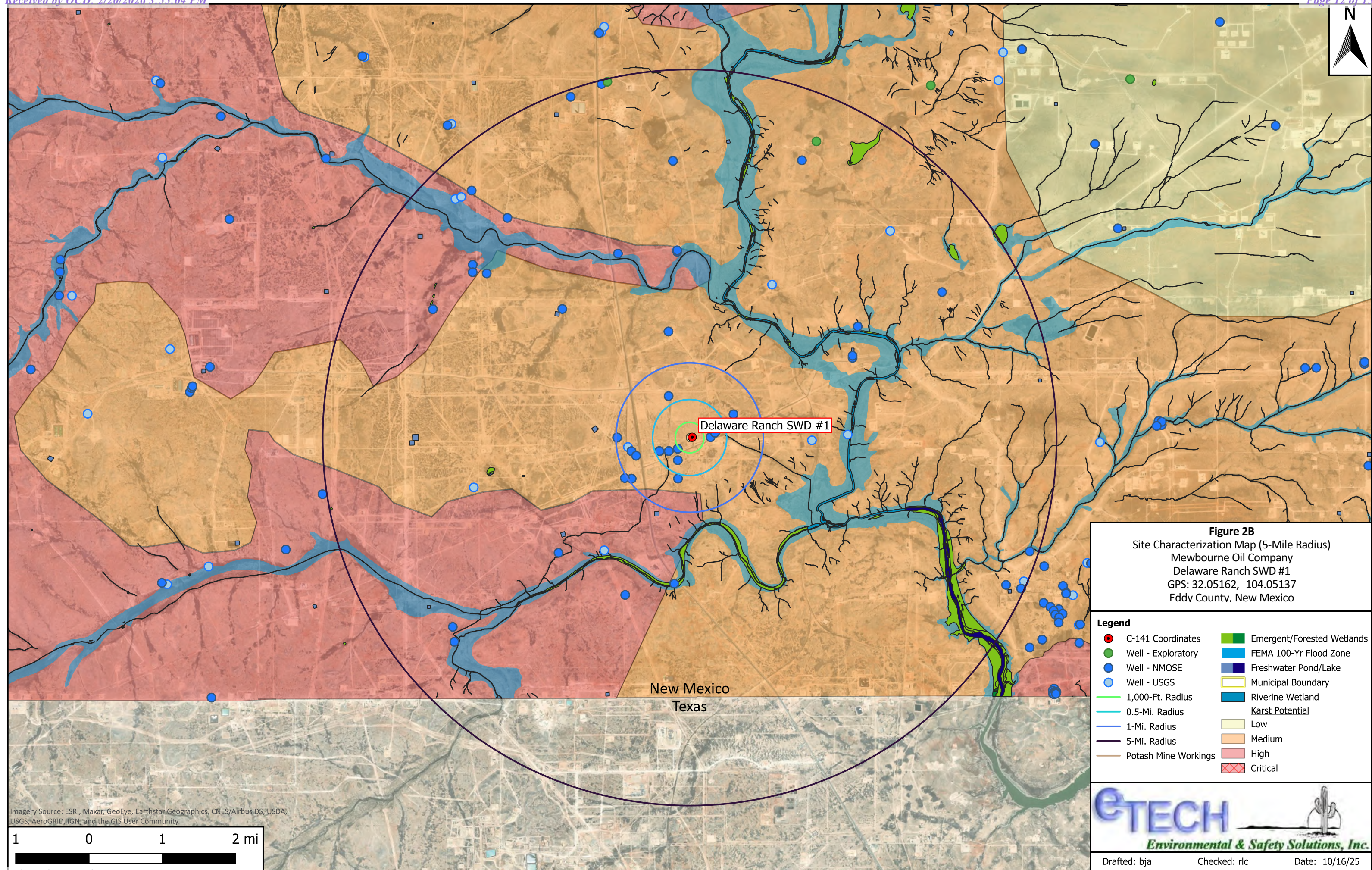
C-141 Coordinates	Affected Area
Well - Exploratory	Emergent/Forested Wetlands
Well - NMOSE	FEMA 100-Yr Flood Zone
Well - USGS	Freshwater Pond/Lake
100-Ft. Radius	Municipal Boundary
200-Ft. Radius	Riverine Wetland
300-Ft. Radius	Karst Potential
500-Ft. Radius	Low
1,000-Ft. Radius	Medium
0.5-Mi. Radius	High
Potash Mine Workings	Critical

Imagery Source: ESRI, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

500 0 500 1,000 ft

**ETECH**  
 Environmental & Safety Solutions, Inc.

Drafted: bja      Checked: rlc      Date: 10/16/25

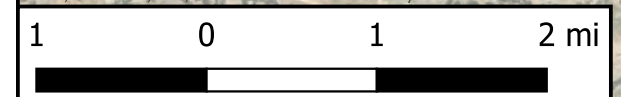


**Figure 2B**  
 Site Characterization Map (5-Mile Radius)  
 Mewbourne Oil Company  
 Delaware Ranch SWD #1  
 GPS: 32.05162, -104.05137  
 Eddy County, New Mexico

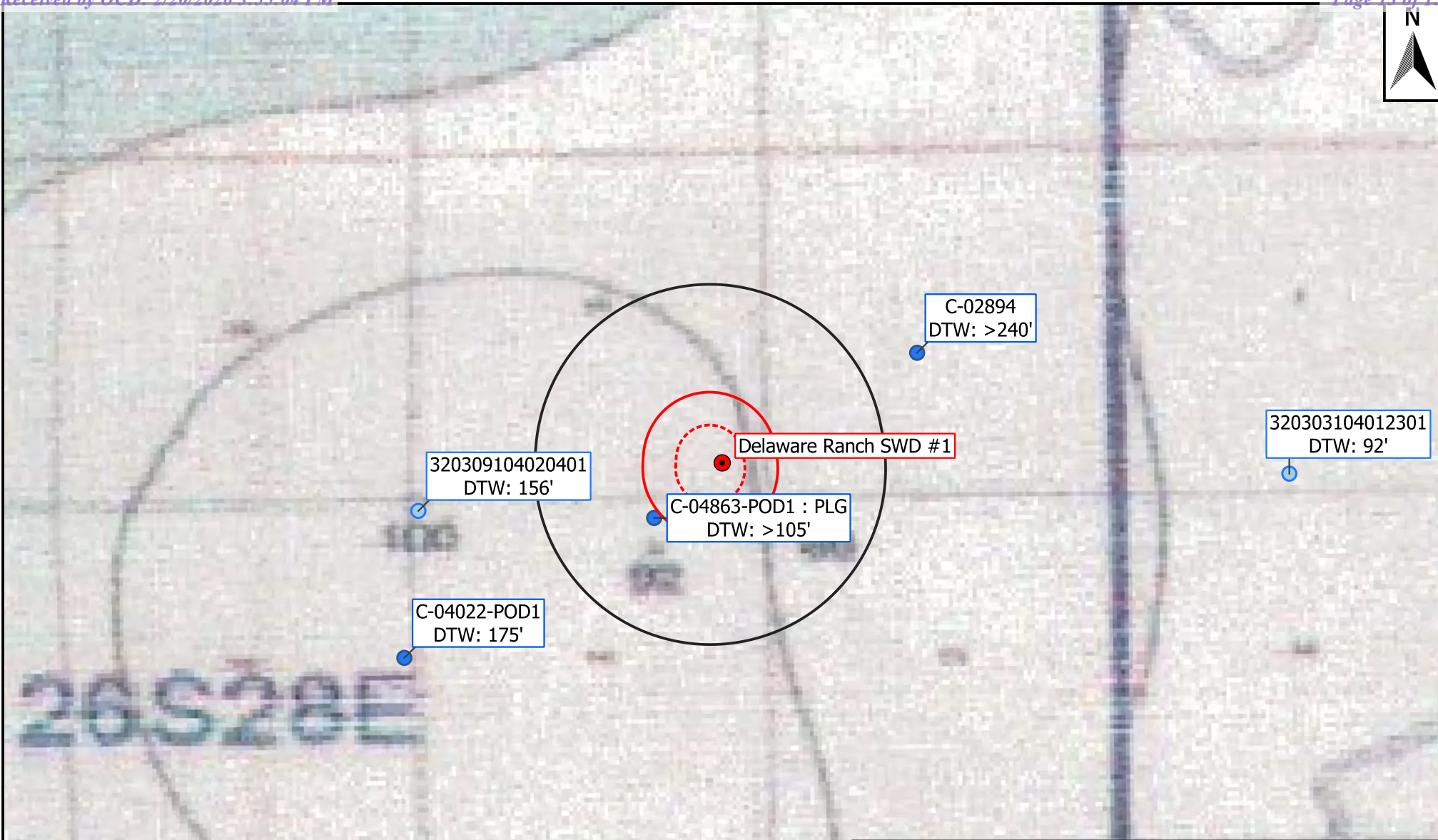
- Legend**
- C-141 Coordinates
  - Well - Exploratory
  - Well - NMOSE
  - Well - USGS
  - 1,000-Ft. Radius
  - 0.5-Mi. Radius
  - 1-Mi. Radius
  - 5-Mi. Radius
  - Potash Mine Workings
  - Emergent/Forested Wetlands
  - FEMA 100-Yr Flood Zone
  - Freshwater Pond/Lake
  - Municipal Boundary
  - Riverine Wetland
  - Karst Potential
  - Low
  - Medium
  - High
  - Critical

New Mexico  
 Texas

Imagery Source: ESRI, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Drafted: bja      Checked: rlc      Date: 10/16/25



Source: NMOSE and USGS

Note: Only wells with depth to groundwater data ≤25 years old are depicted.

**Legend**

- C-141 Coordinates
- Well - NMOSE
- Well - USGS
- Well - Other
- ⋯ 500-Ft Radius
- ⋯ 1,000-Ft Radius
- 0.5-Mi Radius

**Figure 3**

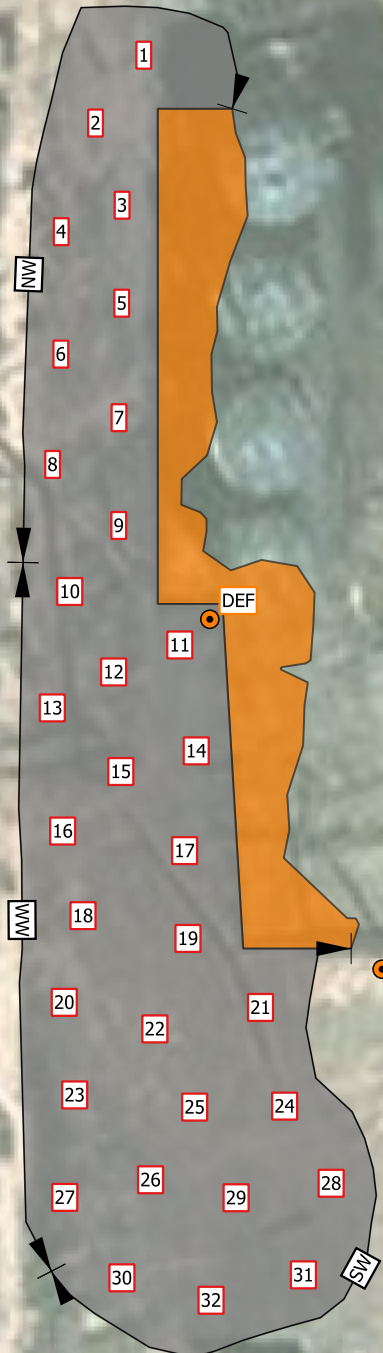
Inferred Depth to Groundwater Map  
 Mewbourne Oil Company  
 Delaware Ranch SWD #1  
 GPS: 32.05162, -104.05137  
 Eddy County, New Mexico



Drafted: bja

Checked: rlc

Revised: 2/18/26



**Legend**

- Deferral Area (~1,294 ft<sup>2</sup>)
- Excavation Extent (~5,903 ft<sup>2</sup>)
- Composite Floor Sample
- Composite Wall Sample
- Deferral Characterization Sample

**Figure 4**  
 Sample Location Map  
 Mewbourne Oil Company  
 Delaware Ranch SWD #1  
 GPS: 32.05162, -104.05137  
 Eddy County, New Mexico



Drafted: bja      Checked: rlc      Date: 2/17/26

## **Tables**

<b>Table 1</b> <b>Concentrations of BTEX, TPH &amp; Chloride in Soil</b> <b>Mewbourne Oil Company</b> <b>Delaware Ranch SWD #1</b> <b>NMOCD Ref. #: nAPP2521351232</b>												
NMOCD Closure Criteria					10	50	N/A	N/A	1,000	N/A	2,500	20,000
NMOCD Reclamation Standard					10	50	N/A	N/A	N/A	N/A	100	600
Sample ID	Date	Depth (Feet)	Type	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
					Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	
FL 1 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	220	220	73.8	294	7,120
FL 2 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	144	144	46.3	190	9,440
FL 3 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	51.2	51.2	12.0	63.2	5,680
FL 4 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	67.4	67.4	17.4	84.8	6,960
FL 5 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	297	297	108	405	8,560
FL 6 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	279	279	99.0	378	7,520
FL 7 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	24.3	24.3	<10.0	24.3	5,680
FL 8 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	269	269	107	376	7,520
FL 9 @ 3"	8/25/2025	0.25	C	Excavated	<0.050	<0.300	<10.0	1,190	1,190	414	1,600	10,700
FL 9 @ 6"	8/27/2025	0.5	C	In-Situ	<0.050	<0.302	<10.0	10.9	10.9	<10.0	10.9	1,440
FL 10 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	279	279	130	409	8,800
FL 11 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	44.2	44.2	<10.0	44.2	12,200
FL 12 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	95.9	95.9	17.0	113	16,000
FL 13 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	<10.0	0.00	<10.0	0.00	16,600
FL 14 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	0.974	<10.0	12.7	12.7	<10.0	12.7	15,600
FL 15 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	33.2	33.2	<10.0	33.2	13,200
FL 16 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	<10.0	0.00	<10.0	0.00	7,120
FL 17 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	16.6	16.6	<10.0	16.6	1,490
FL 18 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	61.8	61.8	20.5	82.3	5,600
FL 19 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	328	328	130	458	11,500
FL 20 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	119	119	46.5	166	5,280
FL 21 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	364	364	141	505	11,400
FL 22 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	232	232	89.4	321	7,840
FL 23 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	160	160	84.9	245	16,600
FL 24 @ 3"	8/25/2025	0.25	C	Excavated	<0.050	<0.300	<10.0	182	182	79.0	261	27,000
FL 24 @ 6"	8/27/2025	0.5	C	In-Situ	<0.050	<0.300	<10.0	27.7	27.7	13.4	41.1	6,720
FL 25 @ 3"	8/25/2025	0.25	C	Excavated	<0.050	<0.300	<10.0	265	265	111	376	21,000
FL 25 @ 6"	8/27/2025	0.5	C	In-Situ	<0.050	<0.301	<10.0	44.9	44.9	17.2	62.1	5,240
FL 26 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	520	520	175	695	11,500
FL 27 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	73.1	73.1	26.7	99.8	5,920
FL 28 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	122	122	50.7	173	6,000
FL 29 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	<10.0	0.00	<10.0	0.00	6,000
FL 30 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	<10.0	0.00	<10.0	0.00	1,790
FL 31 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	84.1	84.1	29.8	114	16,400
FL 32 @ 3"	8/25/2025	0.25	C	In-Situ	<0.050	<0.300	<10.0	217	217	77.0	294	3,760
NW	8/25/2025	0-0.5	C	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
SW	8/25/2025	0-0.25	C	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	224
WW	8/25/2025	0-0.5	C	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128

Dash (-): Sample not analyzed for that constituent.

**Bold:** NMOCD Closure Criteria exceedance.

**Red:** NMOCD Reclamation Standard exceedance.

Red Border with Shading: Highest observed concentration.

A - Assessment F - Backfill  
 D - Delineation B - Background  
 C - Confirmation O - Other  
 R - Deferral

<b>Table 1</b> <b>Concentrations of BTEX, TPH &amp; Chloride in Soil</b> <b>Mewbourne Oil Company</b> <b>Delaware Ranch SWD #1</b> <b>NMOCD Ref. #: nAPP2521351232</b>												
NMOCD Closure Criteria					10	50	N/A	N/A	1,000	N/A	2,500	20,000
NMOCD Reclamation Standard					10	50	N/A	N/A	N/A	N/A	100	600
Sample ID	Date	Depth (Feet)	Type	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
					Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
DEF @ Surf	8/25/2025	0	R	In-Situ	<0.050	<0.300	<10.0	5,170	5,170	2,250	7,420	23,600
DEF @ 1'	8/25/2025	1	R	In-Situ	<0.050	<0.300	<10.0	27.6	27.6	36.2	63.8	5,840
DEF @ 2'	8/25/2025	2	R	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	6,960
DEF @ 3'	8/25/2025	3	R	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	5,680
DEF @ 4'	8/25/2025	4	R	In-Situ	<0.050	<0.300	<10.0	41.2	41.2	<10.0	41.2	6,880
DEF @ 5'	8/25/2025	5	R	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,240
DEF @ 6'	8/25/2025	6	R	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240
DEF 2 @ Surf	10/15/2025	0	R	In-Situ	<0.050	<0.300	<10.0	1,070	1,070	499	1,570	528
DEF 2 @ 1'	10/15/2025	1	R	In-Situ	<0.050	<0.300	<10.0	152	152	73.7	226	352
DEF 2 @ 2'	12/18/2025	2	R	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<30.0	192
DEF 3 @ Surf	10/15/2025	0	R	In-Situ	<0.050	<0.300	<10.0	64.8	64.8	30.1	94.9	336
DEF 3 @ 1'	10/15/2025	1	R	In-Situ	<0.050	<0.300	<10.0	105	105	61.0	166	336
DEF 3 @ 3'	12/18/2025	3	R	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<30.0	192
DEF 4 @ Surf	10/15/2025	0	R	In-Situ	<0.050	<0.300	<10.0	753	753	305	1,060	384
DEF 4 @ 1'	10/15/2025	1	R	In-Situ	<0.050	<0.300	<10.0	126	126	73.0	199	336
DEF 4 @ 2'	12/18/2025	2	R	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<30.0	192

Dash (-): Sample not analyzed for that constituent.

**Bold:** NMOCD Closure Criteria exceedance.

**Red:** NMOCD Reclamation Standard exceedance.

Red Border with Shading: Highest observed concentration.

A - Assessment F - Backfill

D - Delineation B - Background

C - Confirmation O - Other

R - Deferral


## **Appendix A**

### **Depth to Groundwater Information**

# Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE  
 quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
NA	C 04863 POD1	NE	NW	NE	14	26S	28E	589239.2	3546295.5	

\* UTM location was derived from PLSS - see Help

<b>Driller License:</b>	1862	<b>Driller Company:</b>	H&R ENTERPRISES, LLC		
<b>Driller Name:</b>	JAMES HAWLEY				
<b>Drill Start Date:</b>	2024-09-03	<b>Drill Finish Date:</b>	2024-09-03	<b>Plug Date:</b>	2024-09-06
<b>Log File Date:</b>	2024-09-12	<b>PCW Rcv Date:</b>		<b>Source:</b>	
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b>	
<b>Casing Size:</b>		<b>Depth Well:</b>	105	<b>Depth Water:</b>	

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/10/25 5:28 PM MST

Point of Diversion Summary

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# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) Pod-1		WELL TAG ID NO.		OSE FILE NO(S) <b>C-4863</b>			
	WELL OWNER NAME(S) Mewbourne Oil Co.				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 4801 Business Park Blvd.				CITY Hobbs	STATE NM	ZIP 88241	
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 02	SECONDS 57.67	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
	LONGITUDE -104			17.03	W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NWNE S-14 T26S R28E								
2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1862		NAME OF LICENSED DRILLER James Hawley			NAME OF WELL DRILLING COMPANY H&R Enterprises, LLC		
	DRILLING STARTED 9/3/24	DRILLING ENDED 9/3/24	DEPTH OF COMPLETED WELL (FT) 105	BORE HOLE DEPTH (FT) 105	DEPTH WATER FIRST ENCOUNTERED (FT) N/A Dry hole			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN *add Centralizer info below <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A	DATE STATIC MEASURED 9/6/24		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:						CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>	
	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						
				No casing left in hole				
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL <i>*(if using Centralizers for Artesian wells- indicate the spacing below)</i>	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
				N/A no casing left in hole				

OSE DII ROSWELL NM  
SEP 12 2024 PM 1:20

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 09/22/2022)			
FILE NO. <b>C-4863</b>	POD NO. <b>1</b>	TRN NO. <b>764872</b>			
LOCATION <b>26S. 28E. 14 212</b>		WELL TAG ID NO. <b>NA</b>	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	5	5	white caliche	Y ✓ N	
	5	20	15	tan silt and clay	Y ✓ N	
	20	30	10	light yellow silty sand	Y ✓ N	
	30	35	55	light gray silt	Y ✓ N	
	40	55	15	light yellow tan clay and silt	Y ✓ N	
	55	105	50	light red clay and silt	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: N/A					TOTAL ESTIMATED WELL YIELD (gpm):	

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:	Well was drilled on 9/3/24, no water was encountered, well was gauged with a well sounder on 9/6/24, no water was found, casing was pulled and well was plugged in accordance with the approved plugging plan. <div style="text-align: right; color: blue; font-weight: bold;">OSE DII ROSWELL NM SEP 12 2024 PM1:20</div>
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Nathan Smelcer	


6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:	
	_____ SIGNATURE OF DRILLER / PRINT SIGNEE NAME	James Hawley _____ DATE
		9/9/24

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 09/22/2022)	
FILE NO. <b>C-4863</b>	POD NO. <b>1</b>	TRN NO. <b>764822</b>	
LOCATION <b>26S-28E-14 212</b>	WELL TAG ID NO.	PAGE 2 OF 2	

# Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE  
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
C 02894	NE	NE	SW	12	26S	28E	590458.0	3547061.0 *		

\* UTM location was derived from PLSS - see Help

<b>Driller License:</b>	1348	<b>Driller Company:</b>	TAYLOR WATER WELL SERVICE		
<b>Driller Name:</b>					
<b>Drill Start Date:</b>	2002-03-20	<b>Drill Finish Date:</b>	2002-03-24	<b>Plug Date:</b>	
<b>Log File Date:</b>	2002-04-04	<b>PCW Rcv Date:</b>		<b>Source:</b>	
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b>	
<b>Casing Size:</b>		<b>Depth Well:</b>	240	<b>Depth Water:</b>	

## Water Bearing Stratifications:

Top	Bottom	Description
107	112	Other/Unknown

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1/16/25 11:10 AM MST

Point of Diversion Summary

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Revised June 1972

STATE ENGINEER OFFICE  
WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well Delaware Ranch, Inc. Owner's Well No. \_\_\_\_\_  
Street or Post Office Address 706 W. Riverside Dr.  
City and State Carlsbad, NM 88220

Well was drilled under Permit No. C-2894 and is located in the:

- a. NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  of Section 12 Township 26S Range 28E N.M.P.M.
- b. Tract No. \_\_\_\_\_ of Map No. \_\_\_\_\_ of the \_\_\_\_\_
- c. Lot No. \_\_\_\_\_ of Block No. \_\_\_\_\_ of the \_\_\_\_\_  
Subdivision, recorded in \_\_\_\_\_ County.
- d. X= \_\_\_\_\_ feet, Y= \_\_\_\_\_ feet, N.M. Coordinate System \_\_\_\_\_ Zone in  
the \_\_\_\_\_ Grant.

(B) Drilling Contractor Taylor Water Well Service License No. WD-1348

Address 7317 Etcheverry Rd., Carlsbad, NM 88220

Drilling Began 3/20/02 Completed 3/24/02 Type tools Rotary Size of hole 4 7/8 in.

Elevation of land surface or \_\_\_\_\_ at well is UK ft. Total depth of well 240 ft.

Completed well is  shallow  artesian. Depth to water upon completion of well \_\_\_\_\_ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
107	112	5	Anhydrite:gry,tn,frstd,vfn xln	Less than 1

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor \_\_\_\_\_  
Address \_\_\_\_\_  
Plugging Method \_\_\_\_\_  
Date Well Plugged \_\_\_\_\_  
Plugging approved by: \_\_\_\_\_

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			
4			

State Engineer Representative

FOR USE OF STATE ENGINEER ONLY

Date Received 04-04-2002

Quad \_\_\_\_\_ FWL \_\_\_\_\_ FSL \_\_\_\_\_


File No. C-2894 Use Stock Location No. 26S.28E.12.322



# Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE  
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
C 04022	POD1	SE	SE	NE	15	26S	28E	588081.6	3545647.1	

\* UTM location was derived from PLSS - see Help

<b>Driller License:</b>	1184	<b>Driller Company:</b>	WEST TEXAS WATER WELL SERVICE		
<b>Driller Name:</b>	KEITH, RONNY				
<b>Drill Start Date:</b>	2017-05-01	<b>Drill Finish Date:</b>	2017-05-05		<b>Plug Date:</b>
<b>Log File Date:</b>	2017-06-05	<b>PCW Rcv Date:</b>			<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>				<b>Estimated Yield:</b> 1
<b>Casing Size:</b>	12.25	<b>Depth Well:</b>	220		<b>Depth Water:</b> 175

## Water Bearing Stratifications:

Top	Bottom	Description
175	180	Sandstone/Gravel/Conglomerate

## Casing Perforations:

Top	Bottom
160	220

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10/10/25 5:30 PM MST

Point of Diversion Summary

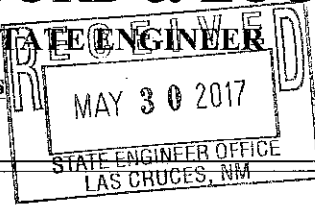
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# WELL RECORD & LOG

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STATE ENGINEER OFFICE  
ROSSELL, NEW MEXICO

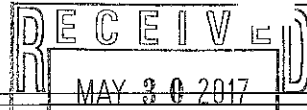
2017 JUN -5 PM 1:45

1. GENERAL AND WELL LOCATION	OSE POD NUMBER (WELL NUMBER) <b>#1</b>			OSE FILE NUMBER(S) <b>C-4022</b>		
	WELL OWNER NAME(S) <b>Mosaic Potash - Carlsbad Inc.</b>			PHONE (OPTIONAL) <b>575-628-6279</b>		
	WELL OWNER MAILING ADDRESS <b>P.O. Box 71</b>			CITY <b>Carlsbad</b>	STATE <b>NM</b>	ZIP <b>88221</b>
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE <b>32</b>	MINUTES <b>02'</b>	SECONDS <b>36.9" N</b>	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84	
LONGITUDE <b>104 04' 1.4"W</b>						
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE <b>US 285 - 3.5 miles N of state line</b>						

2. DRILLING & CASING INFORMATION	LICENSE NUMBER <b>WD-1184</b>	NAME OF LICENSED DRILLER <b>Ronny Keith</b>			NAME OF WELL DRILLING COMPANY <b>West Texas Water Well Service</b>			
	DRILLING STARTED <b>5-1-17</b>	DRILLING ENDED <b>5-5-17</b>	DEPTH OF COMPLETED WELL (FT) <b>220'</b>	BORE HOLE DEPTH (FT) <b>220'</b>	DEPTH WATER FIRST ENCOUNTERED (FT) <b>175</b>			
	COMPLETED WELL IS: ARTESIAN DRY HOLE <u>SHALLOW (UNCONFINED)</u>			STATIC WATER LEVEL IN COMPLETED WELL (FT) <b>140</b>				
	DRILLING FLUID: AIR <u>MUD</u>		ADDITIVES - SPECIFY: <b>Baroid Quik-gel</b>					
	DRILLING METHOD: <u>ROTARY</u> HAMMER CABLE TOOL 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	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	<b>0</b>	<b>15</b>	<b>24</b>	<b>20" J-55 STEEL</b>	<b>NA</b>	<b>19.125</b>	<b>.250</b>	
	<b>0</b>	<b>160</b>	<b>17.5</b>	<b>12.75" A-53</b>	<b>welded</b>	<b>12.25</b>	<b>.250</b>	
	<b>160</b>	<b>220</b>	<b>17.5</b>	<b>12.75" A-53</b>	<b>welded</b>	<b>12.25</b>	<b>.250</b>	<b>.125</b>

3. ANNULAR MATERIAL	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				
	<b>0</b>	<b>15</b>	<b>24</b>	<b>Portland</b>	<b>15</b>	<b>Tremmie</b>
	<b>0</b>	<b>20</b>	<b>17.5</b>	<b>Portland</b>	<b>16</b>	<b>Tremmie</b>
	<b>20</b>	<b>220</b>	<b>17.5</b>	<b>3/8" grade 5 washed gravel</b>	<b>157</b>	<b>peured</b>

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 10/29/15)			
FILE NUMBER	<b>C-4022</b>	POD NUMBER	<b>1</b>	TRN NUMBER	<b>003470</b>
LOCATION	<b>26S.28E.15.244</b>				PAGE 1 OF 2



DEPTH (feet bgl)	THICKNESS (feet)		COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVEATS OR FISSURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)		ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
	FROM	TO		Y	N	
0	15	15	Sandy grey shale	Y	(N)	
15	105	110	Sandy red shale	Y	(N)	
105	115	10	Red clay	Y	(N)	
115	150	35	Sandy grey shale	Y	(N)	
150	170	20	Fine tan sand	Y	(N)	
175	180	5	Gravel	(Y)	N	1
180	185	5	Grey clay	Y	(N)	
185	198	13	Gypsum	Y	(N)	
198	205	7	Sandy grey shale	Y	(N)	
205	220	15	Grey shale	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 checked="" type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:				TOTAL ESTIMATED WELL YIELD (gpm):		1.0 0.00

2017 JUN - 5 PM 1:45  
 STATE ENGINEER OFFICE  
 ROSWELL, NEW MEXICO

**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:

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

**6. SIGNATURE**

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

*Richard Ashley*                      *Richard Ashley*                      5-8-17  
 SIGNATURE OF DRILLER / PRINT SIGNEE NAME                      DATE

FOR USE INTERNAL USE

FILE NUMBER	C-4022	POD NUMBER	1	TRN NUMBER	003470
LOCATION	265.28E.15.244				PAGE 2 OF 2



**National Water Information System: Web Interface**

[USGS Water Resources](#)

Data Category:  Geographic Area:

[+](#)  
Click for News Bulletins

Groundwater levels for the Nation

**!** Important: [Next Generation Monitoring Location Page](#)

**Search Results -- 1 sites found**

Agency code = usgs  
 site\_no list =  
     • 320309104020401

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

**USGS 320309104020401 26S.28E.14.11111**

Eddy County, New Mexico  
 Latitude 32°02'59.0", Longitude 104°03'58.7" NAD83  
 Land-surface elevation 2,972.00 feet above NGVD29  
 This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
 This well is completed in the Rustler Formation (312RSLR) local aquifer.

**Output formats**

- [Table of data](#)
- [Tab-separated data](#)
- [Graph of data](#)
- [Reselect period](#)

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
>=2000			7								
2003-01-27		D	72019	97.02			1	S	USGS	S	A
2013-01-09	20:30 UTC	m	72019	139.12			1	S	USGS	S	A
2021-02-24	20:05 UTC	m	72019	155.92			1	V	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	V	Calibrated electric-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2025-10-10 19:33:39 EDT

0.37 0.3 nadww02

## **Appendix B**

### **Field Data & Soil Profile Log**



### Sample Log

Date: 08/22/25

Project: Delaware SWD

Project Number: 22713 Latitude: 32.051497 Longitude: -104.051978

Sample ID	PID/Odor	Chloride Conc.	GPS
FL 1	5.2	4,204	
FL 2	6.6	7,148	
FL 3	5.8	5,288	
FL 4	6.4	6,628	
FL 5	7.2	9,108	
FL 6	6.0	5,704	
FL 7	4.2	2,800	
FL 8	6.8	1,716	
FL 9	7.0	8,332	
FL 10	4.6	7,148	
FL 11	7.4	9,752	
FL 12	7.8	11,504	
FL 13	7.8	11,504	
FL 14	8.2	13,744	
FL 15	8.2	13,744	
FL 16	7.0	8,332	
FL 17	3.0	1,736	
FL 18	7.4	10,640	
FL 19	7.8	12,164	
FL 20	5.8	5,640	
FL 21	7.8	12,164	
FL 22	8.8	8,332	
FL 23	8.2	12,164	
FL 24	7.4	10,640	
FL 25	7.4	10,640	
FL 26	6.0	6,092	
FL 27	4.8	3,816	
FL 28	6.0	7,698	
FL 29	5.4	4,828	
FL 30	5.2	4,828	
FL 31	6.8	8,332	
FL 32	5.2	11,212	
North Wall		368	
West Wall		332	
South Wall		332	

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ##

Resamples = SP #1 @ 5b or SW #1b

Floor = FL #1 etc

Refusal = SP #1 @ 4'-R

Stockpile = Stockpile #1

Sidewall = SW #1 etc

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

GPS Sample Points, Center of Comp Areas

FL 9 @ 6" 2.8 - 1,1572  
 FL 24 @ 6" 5.0 - 4,1128  
 Released to Imaging: 3/31/2026 1:51:35 PM 28  
 FL 25 @ 6" 6.0



### Soil Profile

Date: \_\_\_\_\_

Project: Delaware SWD

Project Number: 22713 Latitude: 32.051497 Longitude: -104.051978

Depth (ft. bgs)


Description

1	Imported Fill
2	6" TD
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## **Appendix C Photographic Log**

### Photographic Log

<b>Photo Number:</b> 1	
<b>Photo Direction:</b> North-Northwest	
<b>Photo Description:</b> View of the affected area.	

<b>Photo Number:</b> 2	
<b>Photo Direction:</b> North	
<b>Photo Description:</b> View of the affected area.	


### Photographic Log

<b>Photo Number:</b> 3	
<b>Photo Direction:</b> South-Southeast	
<b>Photo Description:</b> View of the affected area.	

<b>Photo Number:</b> 4	
<b>Photo Direction:</b> North	
<b>Photo Description:</b> View of the excavated area.	

### Photographic Log

<b>Photo Number:</b> 5	 <p>8/22/25, 12:07 PM +32.051606,-104.051969 NM, Carlsbad</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the excavated area.	


<b>Photo Number:</b> 6	 <p>8/22/25, 12:08 PM +32.051387,-104.051778 NM, Carlsbad</p>
<b>Photo Direction:</b> West	
<b>Photo Description:</b>  View of the excavated area.	

### Photographic Log

<b>Photo Number:</b> 7	 <p>8/28/25, 12:29 PM +32.051589,-104.051964 NM, Carlsbad</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the remediated area following backfill and regrading.	

<b>Photo Number:</b> 8	 <p>8/28/25, 12:29 PM +32.051701,-104.051973 NM, Carlsbad</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the remediated area following backfill and regrading.	

### Photographic Log

<b>Photo Number:</b> 9	
<b>Photo Direction:</b> West	
<b>Photo Description:</b>  View of the remediated area following backfill and regrading.	

## **Appendix D**

# **Laboratory Analytical Reports**



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

August 27, 2025

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: DELAWARE SWD

Enclosed are the results of analyses for samples received by the laboratory on 08/26/25 13:11.

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,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 1 @ 3" (H255307-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>7120</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>220</b>	10.0	08/26/2025	ND	190	95.2	200	2.33	
<b>EXT DRO &gt;C28-C36</b>	<b>73.8</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 116 % 44.4-145

Surrogate: 1-Chlorooctadecane 124 % 40.6-153

Cardinal Laboratories

\*=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:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 2 @ 3" (H255307-02)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>9440</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>144</b>	10.0	08/26/2025	ND	190	95.2	200	2.33	
<b>EXT DRO &gt;C28-C36</b>	<b>46.3</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 81.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.5 % 40.6-153

Cardinal Laboratories

\*=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:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 3 @ 3" (H255307-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>5680</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>51.2</b>	10.0	08/26/2025	ND	190	95.2	200	2.33	
<b>EXT DRO &gt;C28-C36</b>	<b>12.0</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 85.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.0 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 4 @ 3" (H255307-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>6960</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>67.4</b>	10.0	08/26/2025	ND	190	95.2	200	2.33	
<b>EXT DRO &gt;C28-C36</b>	<b>17.4</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 89.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 94.6 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 5 @ 3" (H255307-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>8560</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>297</b>	10.0	08/26/2025	ND	190	95.2	200	2.33	
<b>EXT DRO &gt;C28-C36</b>	<b>108</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 90.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 103 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 6 @ 3" (H255307-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7520	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
DRO >C10-C28*	279	10.0	08/26/2025	ND	190	95.2	200	2.33	
EXT DRO >C28-C36	99.0	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 83.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.4 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 7 @ 3" (H255307-07)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>5680</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>24.3</b>	10.0	08/26/2025	ND	190	95.2	200	2.33	
EXT DRO >C28-C36	<10.0	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 87.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 8 @ 3" (H255307-08)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>7520</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>269</b>	10.0	08/26/2025	ND	190	95.2	200	2.33	
<b>EXT DRO &gt;C28-C36</b>	<b>107</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 90.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 9 @ 3" (H255307-09)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>10700</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>1190</b>	10.0	08/26/2025	ND	190	95.2	200	2.33	
<b>EXT DRO &gt;C28-C36</b>	<b>414</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 91.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 131 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 10 @ 3" (H255307-10)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>8800</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>279</b>	10.0	08/26/2025	ND	190	95.2	200	2.33	
<b>EXT DRO &gt;C28-C36</b>	<b>130</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 92.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 11 @ 3" (H255307-11)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>12200</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>44.2</b>	10.0	08/26/2025	ND	190	95.2	200	2.33	
EXT DRO >C28-C36	<10.0	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 85.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 12 @ 3" (H255307-12)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16000</b>	16.0	08/27/2025	ND	416	104	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	08/27/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>95.9</b>	10.0	08/27/2025	ND	190	95.2	200	2.33	
<b>EXT DRO &gt;C28-C36</b>	<b>17.0</b>	10.0	08/27/2025	ND					

Surrogate: 1-Chlorooctane 88.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 96.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 13 @ 3" (H255307-13)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
<b>Toluene*</b>	<b>0.052</b>	0.050	08/26/2025	ND	2.10	105	2.00	1.28	GC-NC1
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
<b>Total Xylenes*</b>	<b>0.244</b>	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16600</b>	16.0	08/27/2025	ND	416	104	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	08/27/2025	ND	204	102	200	2.63	
DRO >C10-C28*	<10.0	10.0	08/27/2025	ND	190	95.2	200	2.33	
EXT DRO >C28-C36	<10.0	10.0	08/27/2025	ND					

Surrogate: 1-Chlorooctane 86.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 14 @ 3" (H255307-14)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
<b>Toluene*</b>	<b>0.171</b>	0.050	08/26/2025	ND	2.10	105	2.00	1.28	GC-NC1
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
<b>Total Xylenes*</b>	<b>0.803</b>	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
<b>Total BTEX</b>	<b>0.974</b>	0.300	08/26/2025	ND					GC-NC1

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>15600</b>	16.0	08/27/2025	ND	416	104	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	08/27/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>12.7</b>	10.0	08/27/2025	ND	190	95.2	200	2.33	
EXT DRO >C28-C36	<10.0	10.0	08/27/2025	ND					

Surrogate: 1-Chlorooctane 89.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.5 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 15 @ 3" (H255307-15)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>13200</b>	16.0	08/27/2025	ND	416	104	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	08/27/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>33.2</b>	10.0	08/27/2025	ND	190	95.2	200	2.33	
EXT DRO >C28-C36	<10.0	10.0	08/27/2025	ND					

Surrogate: 1-Chlorooctane 83.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 16 @ 3" (H255307-16)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7120	16.0	08/27/2025	ND	416	104	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	08/27/2025	ND	204	102	200	2.63	
DRO >C10-C28*	<10.0	10.0	08/27/2025	ND	190	95.2	200	2.33	
EXT DRO >C28-C36	<10.0	10.0	08/27/2025	ND					

Surrogate: 1-Chlorooctane 90.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 17 @ 3" (H255307-17)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1490</b>	16.0	08/27/2025	ND	416	104	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	08/27/2025	ND	204	102	200	2.63	
<b>DRO &gt;C10-C28*</b>	<b>16.6</b>	10.0	08/27/2025	ND	190	95.2	200	2.33	
EXT DRO >C28-C36	<10.0	10.0	08/27/2025	ND					

Surrogate: 1-Chlorooctane 91.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 18 @ 3" (H255307-18)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>5600</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>61.8</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>20.5</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 87.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 19 @ 3" (H255307-19)**

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	08/26/2025	ND	2.02	101	2.00	1.54	
Toluene*	<0.050	0.050	08/26/2025	ND	2.10	105	2.00	1.28	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.07	103	2.00	2.10	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.70	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>11500</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>328</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>130</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 86.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.3 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 20 @ 3" (H255307-20)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>5280</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>119</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>46.5</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 97.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 100 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 21 @ 3" (H255307-21)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>11400</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>364</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>141</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 101 % 44.4-145

Surrogate: 1-Chlorooctadecane 98.3 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 22 @ 3" (H255307-22)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>7840</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>232</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>89.4</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 98.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.0 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 23 @ 3" (H255307-23)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16600</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>160</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>84.9</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 24 @ 3" (H255307-24)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>27000</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>182</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>79.0</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 98.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 25 @ 3" (H255307-25)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>21000</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>265</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>111</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 105 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 26 @ 3" (H255307-26)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>11500</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>520</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>175</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 108 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 27 @ 3" (H255307-27)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>5920</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>73.1</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>26.7</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 103 % 44.4-145

Surrogate: 1-Chlorooctadecane 108 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 28 @ 3" (H255307-28)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>6000</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>122</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>50.7</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 100 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 29 @ 3" (H255307-29)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
DRO >C10-C28*	<10.0	10.0	08/26/2025	ND	184	91.8	200	0.504	
EXT DRO >C28-C36	<10.0	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 114 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 30 @ 3" (H255307-30)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1790	16.0	08/27/2025	ND	416	104	400	3.77	QM-07

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	08/26/2025	ND	205	102	200	0.554	
DRO >C10-C28*	<10.0	10.0	08/26/2025	ND	184	91.8	200	0.504	
EXT DRO >C28-C36	<10.0	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 108 % 44.4-145

Surrogate: 1-Chlorooctadecane 111 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 31 @ 3" (H255307-31)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16400</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>84.1</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>29.8</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 101 % 44.4-145

Surrogate: 1-Chlorooctadecane 105 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/26/2025	Sampling Date:	08/25/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 32 @ 3" (H255307-32)**

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	08/26/2025	ND	2.05	103	2.00	1.40	
Toluene*	<0.050	0.050	08/26/2025	ND	2.15	108	2.00	1.69	
Ethylbenzene*	<0.050	0.050	08/26/2025	ND	2.18	109	2.00	2.12	
Total Xylenes*	<0.150	0.150	08/26/2025	ND	6.43	107	6.00	1.56	
Total BTEX	<0.300	0.300	08/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>3760</b>	16.0	08/27/2025	ND	416	104	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	08/26/2025	ND	205	102	200	0.554	
<b>DRO &gt;C10-C28*</b>	<b>217</b>	10.0	08/26/2025	ND	184	91.8	200	0.504	
<b>EXT DRO &gt;C28-C36</b>	<b>77.0</b>	10.0	08/26/2025	ND					

Surrogate: 1-Chlorooctane 104 % 44.4-145

Surrogate: 1-Chlorooctadecane 104 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

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

Form containing company information (Etech Environmental & Safety Solutions, Inc.), project details (Delaware SWD), and a sampling table with columns for Lab I.D., Sample I.D., Matrix, Preserv., and Analysis Request (Chloride, TPH, BTEX).

PLEASE NOTE: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses.

Form for Relinquished/Received By, Verbal Result, and Turnaround Time, including handwritten signatures and dates.



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Etech Environmental & Safety Solutions, Inc.
Project Manager: Lance Crenshaw
Address: 2617 West Marland
City: Hobbs State: NM Zip: 88240
Phone #: (575) 264-9884 Fax #:
Project #: 22713 Project Owner: Mewbourne Oil Company
Project Name: Delaware SWD
Project Location: 32.051497, -104.051978
Sampler Name: Dustin Crockett
BILL TO
ANALYSIS REQUEST
Chloride
TPH (8015M)
BTEX (8021B)

PLEASE NOTE: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service.

Relinquished By: [Signature] Date: 8/26/25 Time: 1311
Received By: [Signature] Verbal Result: [ ] Yes [ ] No Add'l Phone #:
All Results are emailed. Please provide Email address: pm@etechnv.com
REMARKS: 24H Rush - Bill analytical charges to Mewbourne C/O Connor Walker and rush charges to Etech C/O Lance Crenshaw.
Delivered By: (Circle One) Observed Temp. °C -9.1 Corrected Temp. °C -8.8
Sample Condition Cool Intact CHECKED BY: (Initials) SR
Turnaround Time: Standard [ ] Rush [X] Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Corrected Temp. °C



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Etech Environmental & Safety Solutions, Inc.
Project Manager: Lance Crenshaw
Address: 2617 West Marland
City: Hobbs State: NM Zip: 88240
Phone #: (575) 264-9884 Fax #:
Project #: 22713 Project Owner: Mewbourne Oil Company
Project Name: Delaware SWD
Project Location: 32.051497, -104.051978
Sampler Name: Dustin Crockett
BILL TO
ANALYSIS REQUEST
Chloride TPH (8015M) BTEX (8021B)
FOR LAB USE ONLY
Lab I.D. Sample I.D. (G)RAB OR (C)OMP. # CONTAINERS MATRIX PRESERV. SAMPLING
GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: [Signature] Date: 8-26-25 Time: 1311 Received By: [Signature] Verbal Result: [ ] Yes [ ] No Add'l Phone #: All Results are emailed. Please provide Email address: pm@etechenv.com
REMARKS: 24H Rush - Bill analytical charges to Mewbourne C/O Connor Walker and rush charges to Etech C/O Lance Crenshaw.
Delivered By: (Circle One) Sampler - UPS - Bus - Other: Observed Temp. °C -9.1 Corrected Temp. °C -8.8 Sample Condition Cool Intact [ ] Yes [ ] No [ ] No [ ] No CHECKED BY: (Initials) SJC Turnaround Time: Standard [ ] Rush [X] Bacteria (only) Sample Condition Cool Intact Observed Temp. °C [ ] Yes [ ] No [ ] No [ ] No Corrected Temp. °C Thermometer ID #140 Correction Factor -0.6°C +0.3°C



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Etech Environmental & Safety Solutions, Inc.
Project Manager: Lance Crenshaw
Address: 2617 West Marland
City: Hobbs State: NM Zip: 88240
Phone #: (575) 264-9884 Fax #:
Project #: 22713 Project Owner: Mewbourne Oil Company
Project Name: Delaware SWD
Project Location: 32.051497, -104.051978
Sampler Name: Dustin Crockett
BILL TO ANALYSIS REQUEST
FOR LAB USE ONLY Lab I.D. Sample I.D. MATRIX PRESERV. SAMPLING
Date: 8/25/25 Time: 1311
Relinquished By: [Signature] Received By: [Signature]
Date: 8/25/25 Time: 1311
Relinquished By: Date: Received By:
Observed Temp. °C: -9.1 Corrected Temp. °C: -8.8
Sample Condition: Cool Intact
Turnaround Time: Standard Rush
Bacteria (only) Sample Condition: Cool Intact Observed Temp. °C Corrected Temp. °C



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

September 02, 2025

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: DELAWARE SWD

Enclosed are the results of analyses for samples received by the laboratory on 08/26/25 13:11.

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

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DEF @ SUR	H255308-01	Soil	25-Aug-25 00:00	26-Aug-25 13:11
DEF @ 1'	H255308-02	Soil	25-Aug-25 00:00	26-Aug-25 13:11
DEF @ 2'	H255308-03	Soil	25-Aug-25 00:00	26-Aug-25 13:11
DEF @ 3'	H255308-04	Soil	25-Aug-25 00:00	26-Aug-25 13:11
DEF @ 4'	H255308-05	Soil	25-Aug-25 00:00	26-Aug-25 13:11
DEF @ 5'	H255308-06	Soil	25-Aug-25 00:00	26-Aug-25 13:11
DEF @ 6'	H255308-07	Soil	25-Aug-25 00:00	26-Aug-25 13:11
NW	H255308-10	Soil	25-Aug-25 00:00	26-Aug-25 13:11
SW	H255308-11	Soil	25-Aug-25 00:00	26-Aug-25 13:11
WW	H255308-12	Soil	25-Aug-25 00:00	26-Aug-25 13:11

09/02/25 - Client removed samples -08 and -09. This is the revised report and will replace the one sent earlier today, 09/02/25.

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**DEF @ SUR  
H255308-01 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>23600</b>		16.0	mg/kg	4	5082725	KH	27-Aug-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082706	JH	27-Aug-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			100 %	71.5-134		5082706	JH	27-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

**S-04**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
DRO >C10-C28*	<b>5170</b>		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
EXT DRO >C28-C36	<b>2250</b>		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	

Surrogate: 1-Chlorooctane			103 %	44.4-145		5082641	MS	27-Aug-25	8015B	
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Surrogate: 1-Chlorooctadecane			175 %	40.6-153		5082641	MS	27-Aug-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**DEF @ 1'**  
**H255308-02 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>5840</b>		16.0	mg/kg	4	5082725	KH	27-Aug-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082706	JH	27-Aug-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			104 %	71.5-134		5082706	JH	27-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
<b>DRO &gt;C10-C28*</b>	<b>27.6</b>		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>36.2</b>		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	

Surrogate: 1-Chlorooctane			94.4 %	44.4-145		5082641	MS	27-Aug-25	8015B	
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Surrogate: 1-Chlorooctadecane			100 %	40.6-153		5082641	MS	27-Aug-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**DEF @ 2'**  
**H255308-03 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>6960</b>		16.0	mg/kg	4	5082725	KH	27-Aug-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082706	JH	27-Aug-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		5082706	JH	27-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			95.0 %	44.4-145		5082641	MS	27-Aug-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			101 %	40.6-153		5082641	MS	27-Aug-25	8015B	
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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:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**DEF @ 3'**  
**H255308-04 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>5680</b>		16.0	mg/kg	4	5082725	KH	27-Aug-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082706	JH	27-Aug-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			109 %	71.5-134		5082706	JH	27-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			94.6 %	44.4-145		5082641	MS	27-Aug-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			99.6 %	40.6-153		5082641	MS	27-Aug-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**DEF @ 4'**  
**H255308-05 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>6880</b>		16.0	mg/kg	4	5082725	KH	27-Aug-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082706	JH	27-Aug-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	71.5-134		5082706	JH	27-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
<b>DRO &gt;C10-C28*</b>	<b>41.2</b>		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			112 %	44.4-145		5082641	MS	27-Aug-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			118 %	40.6-153		5082641	MS	27-Aug-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**DEF @ 5'**  
**H255308-06 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>4240</b>		16.0	mg/kg	4	5082725	KH	27-Aug-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082706	JH	27-Aug-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %	71.5-134		5082706	JH	27-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			99.0 %	44.4-145		5082641	MS	27-Aug-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			104 %	40.6-153		5082641	MS	27-Aug-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**DEF @ 6'**  
**H255308-07 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>240</b>		16.0	mg/kg	4	5082725	KH	27-Aug-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082706	JH	27-Aug-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		5082706	JH	27-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			85.6 %	44.4-145		5082641	MS	27-Aug-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			89.2 %	40.6-153		5082641	MS	27-Aug-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**NW  
H255308-10 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>208</b>		16.0	mg/kg	4	5082725	KH	27-Aug-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082706	JH	27-Aug-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %	71.5-134		5082706	JH	27-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			91.2 %	44.4-145		5082641	MS	27-Aug-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			93.2 %	40.6-153		5082641	MS	27-Aug-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**SW  
H255308-11 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>224</b>		16.0	mg/kg	4	5082725	KH	27-Aug-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082706	JH	27-Aug-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			100 %	71.5-134		5082706	JH	27-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			72.9 %	44.4-145		5082641	MS	27-Aug-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			75.1 %	40.6-153		5082641	MS	27-Aug-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**WW  
H255308-12 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>128</b>		16.0	mg/kg	4	5082726	AC	27-Aug-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082706	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082706	JH	27-Aug-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %	71.5-134		5082706	JH	27-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5082641	MS	27-Aug-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			89.2 %	44.4-145		5082641	MS	27-Aug-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			92.0 %	40.6-153		5082641	MS	27-Aug-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5082725 - 1:4 DI Water</b>										
<b>Blank (5082725-BLK1)</b> Prepared & Analyzed: 27-Aug-25										
Chloride	ND	16.0	mg/kg							
<b>LCS (5082725-BS1)</b> Prepared & Analyzed: 27-Aug-25										
Chloride	432	16.0	mg/kg	400		108	80-120			
<b>LCS Dup (5082725-BSD1)</b> Prepared & Analyzed: 27-Aug-25										
Chloride	416	16.0	mg/kg	400		104	80-120	3.77	20	
<b>Batch 5082726 - 1:4 DI Water</b>										
<b>Blank (5082726-BLK1)</b> Prepared & Analyzed: 27-Aug-25										
Chloride	ND	16.0	mg/kg							
<b>LCS (5082726-BS1)</b> Prepared & Analyzed: 27-Aug-25										
Chloride	432	16.0	mg/kg	400		108	80-120			
<b>LCS Dup (5082726-BSD1)</b> Prepared & Analyzed: 27-Aug-25										
Chloride	416	16.0	mg/kg	400		104	80-120	3.77	20	

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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:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082706 - Volatiles**

**Blank (5082706-BLK1)**

Prepared & Analyzed: 27-Aug-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0519		mg/kg	0.0500		104	71.5-134			

**LCS (5082706-BS1)**

Prepared & Analyzed: 27-Aug-25

Benzene	1.97	0.050	mg/kg	2.00		98.7	76.3-129			
Toluene	2.04	0.050	mg/kg	2.00		102	84.1-129			
Ethylbenzene	2.05	0.050	mg/kg	2.00		103	80.1-133			
m,p-Xylene	4.17	0.100	mg/kg	4.00		104	81.4-134			
o-Xylene	2.11	0.050	mg/kg	2.00		105	81.4-133			
Total Xylenes	6.28	0.150	mg/kg	6.00		105	81.5-134			
Surrogate: 4-Bromofluorobenzene (PID)	0.0484		mg/kg	0.0500		96.8	71.5-134			

**LCS Dup (5082706-BSD1)**

Prepared & Analyzed: 27-Aug-25

Benzene	2.00	0.050	mg/kg	2.00		100	76.3-129	1.37	15.8	
Toluene	2.15	0.050	mg/kg	2.00		107	84.1-129	4.94	15.9	
Ethylbenzene	2.16	0.050	mg/kg	2.00		108	80.1-133	5.18	16	
m,p-Xylene	4.43	0.100	mg/kg	4.00		111	81.4-134	6.09	16.2	
o-Xylene	2.24	0.050	mg/kg	2.00		112	81.4-133	5.96	16.7	
Total Xylenes	6.67	0.150	mg/kg	6.00		111	81.5-134	6.05	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0509		mg/kg	0.0500		102	71.5-134			

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: DELAWARE SWD Project Number: 22713 Project Manager: LANCE CRENSHAW Fax To:	Reported: 02-Sep-25 16:43
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082641 - General Prep - Organics**

**Blank (5082641-BLK1)** Prepared: 26-Aug-25 Analyzed: 27-Aug-25

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	49.4		mg/kg	50.0		98.8	44.4-145			
Surrogate: 1-Chlorooctadecane	50.4		mg/kg	50.0		101	40.6-153			

**LCS (5082641-BS1)** Prepared: 26-Aug-25 Analyzed: 27-Aug-25

GRO C6-C10	204	10.0	mg/kg	200		102	81.5-123			
DRO >C10-C28	215	10.0	mg/kg	200		108	77.7-122			
Total TPH C6-C28	419	10.0	mg/kg	400		105	80.9-121			
Surrogate: 1-Chlorooctane	54.5		mg/kg	50.0		109	44.4-145			
Surrogate: 1-Chlorooctadecane	58.2		mg/kg	50.0		116	40.6-153			

**LCS Dup (5082641-BSD1)** Prepared: 26-Aug-25 Analyzed: 27-Aug-25

GRO C6-C10	201	10.0	mg/kg	200		101	81.5-123	1.46	13	
DRO >C10-C28	218	10.0	mg/kg	200		109	77.7-122	1.48	15.6	
Total TPH C6-C28	419	10.0	mg/kg	400		105	80.9-121	0.0591	18.5	
Surrogate: 1-Chlorooctane	53.5		mg/kg	50.0		107	44.4-145			
Surrogate: 1-Chlorooctadecane	57.2		mg/kg	50.0		114	40.6-153			

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*Celey D. Keene*

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

Form containing company information (Etch Environmental & Safety Solutions, Inc.), project details (Delaware SWD), and a table for analysis request with columns for Lab I.D., Sample I.D., Matrix, Preserv., and Sampling. Includes handwritten entries like 'H255308' and '2-3-4-5-6-7-8-9-10'.

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses.

Form for Relinquished By/Received By, Verbal Result, and Turnaround Time. Includes handwritten signatures, dates (8-26-25), and times (1:31). Turnaround time is marked as 'Rush'.



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Form containing company information (Company Name: Etech Environmental & Safety Solutions, Inc.), project details (Project Manager: Lance Crenshaw), and analysis request table with columns for Lab I.D., Sample I.D., Matrix, Preservation, and Sampling.

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses.

Form for Relinquished/Received By, Date, Time, Verbal Result, Remarks, and Turnaround Time information.



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

---

August 29, 2025

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: DELAWARE SWD

Enclosed are the results of analyses for samples received by the laboratory on 08/28/25 8:16.

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".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/27/2025
Reported:	08/29/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 9 @ 6" (H255354-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2025	ND	1.68	83.8	2.00	7.26	
Toluene*	<0.050	0.050	08/28/2025	ND	1.79	89.7	2.00	6.29	
Ethylbenzene*	<0.050	0.050	08/28/2025	ND	1.82	91.0	2.00	4.96	
Total Xylenes*	<0.150	0.150	08/28/2025	ND	5.36	89.4	6.00	4.76	
Total BTEX	<0.300	0.300	08/28/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1440</b>	16.0	08/28/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2025	ND	219	109	200	0.851	
<b>DRO &gt;C10-C28*</b>	<b>10.9</b>	10.0	08/28/2025	ND	208	104	200	0.646	
EXT DRO >C28-C36	<10.0	10.0	08/28/2025	ND					

Surrogate: 1-Chlorooctane 87.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.7 % 40.6-153

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/27/2025
Reported:	08/29/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 24 @ 6" (H255354-02)**

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	08/28/2025	ND	1.68	83.8	2.00	7.26	
Toluene*	<0.050	0.050	08/28/2025	ND	1.79	89.7	2.00	6.29	
Ethylbenzene*	<0.050	0.050	08/28/2025	ND	1.82	91.0	2.00	4.96	
Total Xylenes*	<0.150	0.150	08/28/2025	ND	5.36	89.4	6.00	4.76	
Total BTEX	<0.300	0.300	08/28/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>6720</b>	16.0	08/28/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2025	ND	219	109	200	0.851	
<b>DRO &gt;C10-C28*</b>	<b>27.7</b>	10.0	08/28/2025	ND	208	104	200	0.646	
<b>EXT DRO &gt;C28-C36</b>	<b>13.4</b>	10.0	08/28/2025	ND					

Surrogate: 1-Chlorooctane 68.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 59.8 % 40.6-153

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/27/2025
Reported:	08/29/2025	Sampling Type:	Soil
Project Name:	DELAWARE SWD	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE 32.051497, -104.051978		

**Sample ID: FL 25 @ 6" (H255354-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2025	ND	1.68	83.8	2.00	7.26	
Toluene*	<0.050	0.050	08/28/2025	ND	1.79	89.7	2.00	6.29	
Ethylbenzene*	<0.050	0.050	08/28/2025	ND	1.82	91.0	2.00	4.96	
Total Xylenes*	<0.150	0.150	08/28/2025	ND	5.36	89.4	6.00	4.76	
Total BTEX	<0.300	0.300	08/28/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>5240</b>	16.0	08/28/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2025	ND	219	109	200	0.851	
<b>DRO &gt;C10-C28*</b>	<b>44.9</b>	10.0	08/28/2025	ND	208	104	200	0.646	
<b>EXT DRO &gt;C28-C36</b>	<b>17.2</b>	10.0	08/28/2025	ND					

Surrogate: 1-Chlorooctane 78.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 71.6 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

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

Company Name: Etech Environmental & Safety Solutions, Inc.
Project Manager: Lance Crenshaw
Address: 2617 West Marland
City: Hobbs State: NM Zip: 88240
Phone #: (575) 264-9884 Fax #:
Project #: 22713 Project Owner: Mewbourne Oil Company
Project Name: Delaware SWD
Project Location: 32.051497, -104.051978
Sampler Name: Dustin Crockett
BILL TO
ANALYSIS REQUEST
Chloride
TPH (8015M)
BTEX (8021B)

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses.

Relinquished By: [Signature] Date: 8-28-25
Received By: [Signature] Date: 08/26
Verbal Result: [ ] Yes [ ] No Add'l Phone #:
All Results are emailed. Please provide Email address: pm@etechenv.com
REMARKS: 24H Rush - Bill analytical charges to Mewbourne C/O Connor Walker and rush charges to Etech C/O Lance Crenshaw.
Delivered By: (Circle One) Observed Temp. °C -4.1
Corrected Temp. °C 3.8
Sample Condition Cool Intact [ ] Yes [ ] No
CHECKED BY: (Initials) [Signature]
Turnaround Time: Standard [ ] Rush [X]
Bacteria (only) Sample Condition Cool Intact Observed Temp. °C
Thermometer ID #140 Correction Factor -0.6°C +10.3°C



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

October 09, 2025

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: BATTLE AXE RANCH PIT

Enclosed are the results of analyses for samples received by the laboratory on 10/07/25 14:45.

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

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: BATTLE AXE RANCH PIT Project Number: 22714 Project Manager: LANCE CRENSHAW Fax To:	Reported: 09-Oct-25 12:44
---	--	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BACKFILL PIT	H256263-01	Soil	07-Oct-25 00:00	07-Oct-25 14:45

10/09/25 - Client changed the project name (see COC). This is the revised report and will replace the one sent on 10/08/25.

Cardinal Laboratories

\*=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:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: BATTLE AXE RANCH PIT Project Number: 22714 Project Manager: LANCE CRENSHAW Fax To:	Reported: 09-Oct-25 12:44
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**BACKFILL PIT  
H256263-01 (Soil)**

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

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5100812	HM	08-Oct-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5100716	JH	07-Oct-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5100716	JH	07-Oct-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5100716	JH	07-Oct-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5100716	JH	07-Oct-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5100716	JH	07-Oct-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			87.9 %		70.4-141	5100716	JH	07-Oct-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5100724	MS	07-Oct-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5100724	MS	07-Oct-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5100724	MS	07-Oct-25	8015B	

Surrogate: 1-Chlorooctane			70.4 %		52.4-130	5100724	MS	07-Oct-25	8015B	
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Surrogate: 1-Chlorooctadecane			67.4 %		39.9-141	5100724	MS	07-Oct-25	8015B	
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Cardinal Laboratories

\*=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:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: BATTLE AXE RANCH PIT Project Number: 22714 Project Manager: LANCE CRENSHAW Fax To:	Reported: 09-Oct-25 12:44
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5100812 - 1:4 DI Water</b>										
<b>Blank (5100812-BLK1)</b>										
Prepared & Analyzed: 08-Oct-25										
Chloride	ND	16.0	mg/kg							
<b>LCS (5100812-BS1)</b>										
Prepared & Analyzed: 08-Oct-25										
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (5100812-BSD1)</b>										
Prepared & Analyzed: 08-Oct-25										
Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20	

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: BATTLE AXE RANCH PIT Project Number: 22714 Project Manager: LANCE CRENSHAW Fax To:	Reported: 09-Oct-25 12:44
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5100716 - Volatiles**

**Blank (5100716-BLK1)**

Prepared & Analyzed: 07-Oct-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		88.1	70.4-141			

**LCS (5100716-BS1)**

Prepared & Analyzed: 07-Oct-25

Benzene	1.95	0.050	mg/kg	2.00		97.7	71-111			
Toluene	1.91	0.050	mg/kg	2.00		95.7	75-116			
Ethylbenzene	1.85	0.050	mg/kg	2.00		92.6	74.2-119			
m,p-Xylene	3.57	0.100	mg/kg	4.00		89.3	72.5-123			
o-Xylene	1.79	0.050	mg/kg	2.00		89.7	70.5-124			
Total Xylenes	5.37	0.150	mg/kg	6.00		89.4	72.2-123			
Surrogate: 4-Bromofluorobenzene (PID)	0.0432		mg/kg	0.0500		86.4	70.4-141			

**LCS Dup (5100716-BSD1)**

Prepared & Analyzed: 07-Oct-25

Benzene	1.90	0.050	mg/kg	2.00		95.2	71-111	2.55	17.6	
Toluene	1.87	0.050	mg/kg	2.00		93.5	75-116	2.37	14.8	
Ethylbenzene	1.80	0.050	mg/kg	2.00		90.1	74.2-119	2.74	14.2	
m,p-Xylene	3.46	0.100	mg/kg	4.00		86.6	72.5-123	3.02	13.6	
o-Xylene	1.75	0.050	mg/kg	2.00		87.5	70.5-124	2.49	13.7	
Total Xylenes	5.21	0.150	mg/kg	6.00		86.9	72.2-123	2.85	13.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0430		mg/kg	0.0500		86.1	70.4-141			

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: BATTLE AXE RANCH PIT Project Number: 22714 Project Manager: LANCE CRENSHAW Fax To:	Reported: 09-Oct-25 12:44
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5100724 - General Prep - Organics**

<b>Blank (5100724-BLK1)</b>		Prepared & Analyzed: 07-Oct-25								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
<i>Surrogate: 1-Chlorooctane</i>	39.8		mg/kg	50.0		79.7	52.4-130			
<i>Surrogate: 1-Chlorooctadecane</i>	38.3		mg/kg	50.0		76.5	39.9-141			

<b>LCS (5100724-BS1)</b>		Prepared & Analyzed: 07-Oct-25								
GRO C6-C10	168	10.0	mg/kg	200		84.2	78.7-123			
DRO >C10-C28	167	10.0	mg/kg	200		83.7	74.8-123			
Total TPH C6-C28	336	10.0	mg/kg	400		83.9	78.6-121			
<i>Surrogate: 1-Chlorooctane</i>	42.6		mg/kg	50.0		85.2	52.4-130			
<i>Surrogate: 1-Chlorooctadecane</i>	43.4		mg/kg	50.0		86.9	39.9-141			

<b>LCS Dup (5100724-BSD1)</b>		Prepared & Analyzed: 07-Oct-25								
GRO C6-C10	174	10.0	mg/kg	200		87.1	78.7-123	3.42	11.3	
DRO >C10-C28	172	10.0	mg/kg	200		85.9	74.8-123	2.62	10.9	
Total TPH C6-C28	346	10.0	mg/kg	400		86.5	78.6-121	3.02	10.5	
<i>Surrogate: 1-Chlorooctane</i>	44.7		mg/kg	50.0		89.5	52.4-130			
<i>Surrogate: 1-Chlorooctadecane</i>	45.3		mg/kg	50.0		90.6	39.9-141			

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**Notes and Definitions**

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

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Etech Environmental & Safety Solutions, Inc.
Project Manager: Lance Crenshaw
Address: 2617 West Marland
City: Hobbs State: NM Zip: 88240
Phone #: (575) 264-9884 Fax #:
Project #: 22714 Project Owner: Mewbourne Oil Company
Project Name: Red Hills West Unit 27 Battery \*Battle Axe Pouch Pit
Project Location: 32.05274, -103.67691
Sampler Name: Presley Perez

Table with columns: Lab I.D., Sample I.D., MATRIX (GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER), PRESERV. (ACID/BASE, ICE/COOL, OTHER), SAMPLING (DATE, TIME), and ANALYSIS REQUEST (Chloride, TPH (8015M), BTEX (8021B)).

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service.

Relinquished By: [Signature] Date: 10-7-25 Time: 1445
Received By: [Signature] Date: [Blank] Time: [Blank]
Verbal Result: [ ] Yes [ ] No Add'l Phone #: [Blank]
All Results are emailed. Please provide Email address: pm@etechnv.com
REMARKS: 24H Rush - Bill analytical charges to Mewbourne C/O Connor Walker and rush charges to Etech C/O Lance Crenshaw.
Turnaround Time: Standard [ ] Rush [X]
Bacteria (only) Sample Condition Cool Intact Observed Temp. °C [ ] Yes [ ] No [ ] No [ ] No Corrected Temp. °C [ ] Yes [ ] No [ ] No [ ] No



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---

December 29, 2025

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: DELAWARE RANCH SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 12/19/25 12:00.

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".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/19/2025	Sampling Date:	12/18/2025
Reported:	12/29/2025	Sampling Type:	Soil
Project Name:	DELAWARE RANCH SWD #1	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Alyssa Parras
Project Location:	MEWBOURNE 32.05162, -104.05137		

**Sample ID: DEF 2 @ 2' (H257852-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/22/2025	ND	1.72	86.0	2.00	3.99	
Toluene*	<0.050	0.050	12/22/2025	ND	1.89	94.7	2.00	1.66	
Ethylbenzene*	<0.050	0.050	12/22/2025	ND	1.86	93.1	2.00	1.11	
Total Xylenes*	<0.150	0.150	12/22/2025	ND	5.51	91.8	6.00	1.93	
Total BTEX	<0.300	0.300	12/22/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 70.4-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	12/22/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2025	ND	192	96.1	200	0.444	
DRO >C10-C28*	<10.0	10.0	12/19/2025	ND	175	87.3	200	0.846	
EXT DRO >C28-C36	<10.0	10.0	12/19/2025	ND					

Surrogate: 1-Chlorooctane 80.3 % 52.4-130

Surrogate: 1-Chlorooctadecane 69.4 % 39.9-141

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/19/2025	Sampling Date:	12/18/2025
Reported:	12/29/2025	Sampling Type:	Soil
Project Name:	DELAWARE RANCH SWD #1	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Alyssa Parras
Project Location:	MEWBOURNE 32.05162, -104.05137		

**Sample ID: DEF 3 @ 3' (H257852-02)**

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	12/22/2025	ND	1.72	86.0	2.00	3.99	
Toluene*	<0.050	0.050	12/22/2025	ND	1.89	94.7	2.00	1.66	
Ethylbenzene*	<0.050	0.050	12/22/2025	ND	1.86	93.1	2.00	1.11	
Total Xylenes*	<0.150	0.150	12/22/2025	ND	5.51	91.8	6.00	1.93	
Total BTEX	<0.300	0.300	12/22/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	12/22/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2025	ND	192	96.1	200	0.444	
DRO >C10-C28*	<10.0	10.0	12/19/2025	ND	175	87.3	200	0.846	
EXT DRO >C28-C36	<10.0	10.0	12/19/2025	ND					

Surrogate: 1-Chlorooctane 78.0 % 52.4-130

Surrogate: 1-Chlorooctadecane 70.1 % 39.9-141

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/19/2025	Sampling Date:	12/18/2025
Reported:	12/29/2025	Sampling Type:	Soil
Project Name:	DELAWARE RANCH SWD #1	Sampling Condition:	Cool & Intact
Project Number:	22713	Sample Received By:	Alyssa Parras
Project Location:	MEWBOURNE 32.05162, -104.05137		

**Sample ID: DEF 4 @ 2' (H257852-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/22/2025	ND	1.72	86.0	2.00	3.99	
Toluene*	<0.050	0.050	12/22/2025	ND	1.89	94.7	2.00	1.66	
Ethylbenzene*	<0.050	0.050	12/22/2025	ND	1.86	93.1	2.00	1.11	
Total Xylenes*	<0.150	0.150	12/22/2025	ND	5.51	91.8	6.00	1.93	
Total BTEX	<0.300	0.300	12/22/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	12/22/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/19/2025	ND	192	96.1	200	0.444	
DRO >C10-C28*	<10.0	10.0	12/19/2025	ND	175	87.3	200	0.846	
EXT DRO >C28-C36	<10.0	10.0	12/19/2025	ND					

Surrogate: 1-Chlorooctane 80.8 % 52.4-130

Surrogate: 1-Chlorooctadecane 71.8 % 39.9-141

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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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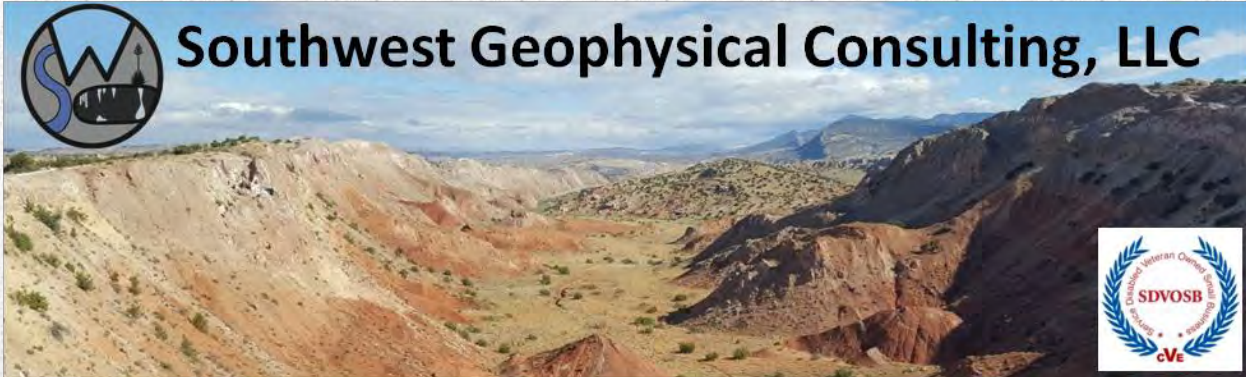
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# **Appendix E**

## **Environmental Karst Study Report**



**Environmental Karst Study Report  
Mewbourne Delaware Ranch SWD No. 001  
Eddy County, New Mexico**

**Prepared For:  
eTech Environmental & Safety Solutions, Inc.  
13000 West County Road 100  
Odessa, TX 79765**

**Within 200 feet of the spill delineation boundary:**

- Negative  Positive for surface karst
- Stable  Unstable Ground
- Karst Monitor Recommended

**August 29, 2025**

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**MMXXV**

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## 1.0 INTRODUCTION

This report was commissioned by eTech Environmental & Safety Solutions, Inc. (hereinafter referred to as "the client"), on July 23, 2025, for the purpose of conducting an environmental karst study within an area encompassing the Mewbourne Delaware Ranch SWD No. 001 release site (hereinafter termed "DRS1") centered at N 32.051493° W 104.052161°.

### 1.1 Goals of this Study

The goals of this study are to conduct a surface karst inventory and provide the client with the location and description of any surface karst features located within 200 feet (61 meters) of the spill delineation boundary (as defined by 19.15.29.12 NMAC<sup>[1]</sup>), and to determine whether stable ground exists (as defined by 19.15.2 NMAC Definitions<sup>[2]</sup>) within the spill delineation boundary of the Delaware Ranch SWD No. 001 release as provided by the client via e-mail ([1\\_GeoMeasure\\_2025-07-21-10-42-01\\_bmacinfotech.kml](#)) on July 23, 2025, using electrical resistivity imaging<sup>[3]</sup>.

### 1.2 Summary of Findings

- **No surface karst features exist within 200 feet (61 meters) of the spill delineation boundary.**
- **No anomalies consistent with subsurface air- or water-filled voids were found within the DRS1 geophysical survey area, indicating the zone beneath the geophysical survey is not subject to collapse.**
- **Well-layered stratigraphy is interpreted to exist beneath the area where the geophysical survey was conducted, indicating stable ground within the 200-foot survey boundary.**

### 1.3 Affected Environment

The DRS1 project site is located in evaporite karst terrain, a landform that is characterized by underground drainage through solutionally enlarged conduits. Evaporite karst terrain may contain sinkholes, sinking streams, caves, and springs. Sinkholes leading to underground drainages and voids are common. These karst features, as well as occasional fissures and discontinuities in the bedrock, provide the primary sources for rapid recharge of the groundwater aquifers of the region. Additionally, karst may develop by hypogene processes involving dissolution by upwelling fluids from depth independent of recharge from the overlying or immediately adjacent surface. Hypogene karst systems may not be connected to the surface and can remain undiscovered unless encountered during drilling or excavation.

Karst features are delicate resources that are often of geological, hydrological, biological, and archeological importance, and should be protected. The four primary concerns in these types of terrain are environmental issues, worker safety, equipment damage, and infrastructure integrity.

The Bureau of Land Management (BLM) categorizes all areas within the Carlsbad Field Office (CFO) zone of responsibility as having either low, medium, high, or critical cave potential based on geology, occurrence of known caves, density of karst features, and potential impacts to freshwater aquifers<sup>[4]</sup>. These designations are also recognized by the New Mexico State Land Office (NMSLO). This project occurs within a **MEDIUM** karst occurrence zone (MKOZ)<sup>[5]</sup> (**Figure 1**).

A medium karst occurrence zone is defined as an area in known soluble rock types that may have a shallow insoluble overburden. These areas may contain isolated karst features such as caves and sinkholes. Groundwater recharge may not be wholly dependent on karst features, but the karst features still provide the most rapid aquifer recharge in response to surface runoff<sup>[4]</sup>.

**Due to the rapidity with which evaporite karst develops, each location within a BLM-CFO designated karst occurrence zone must be assessed on an individual basis to determine the existence of surface karst features and the possibility of sub-surface karst development each time a release occurs.**

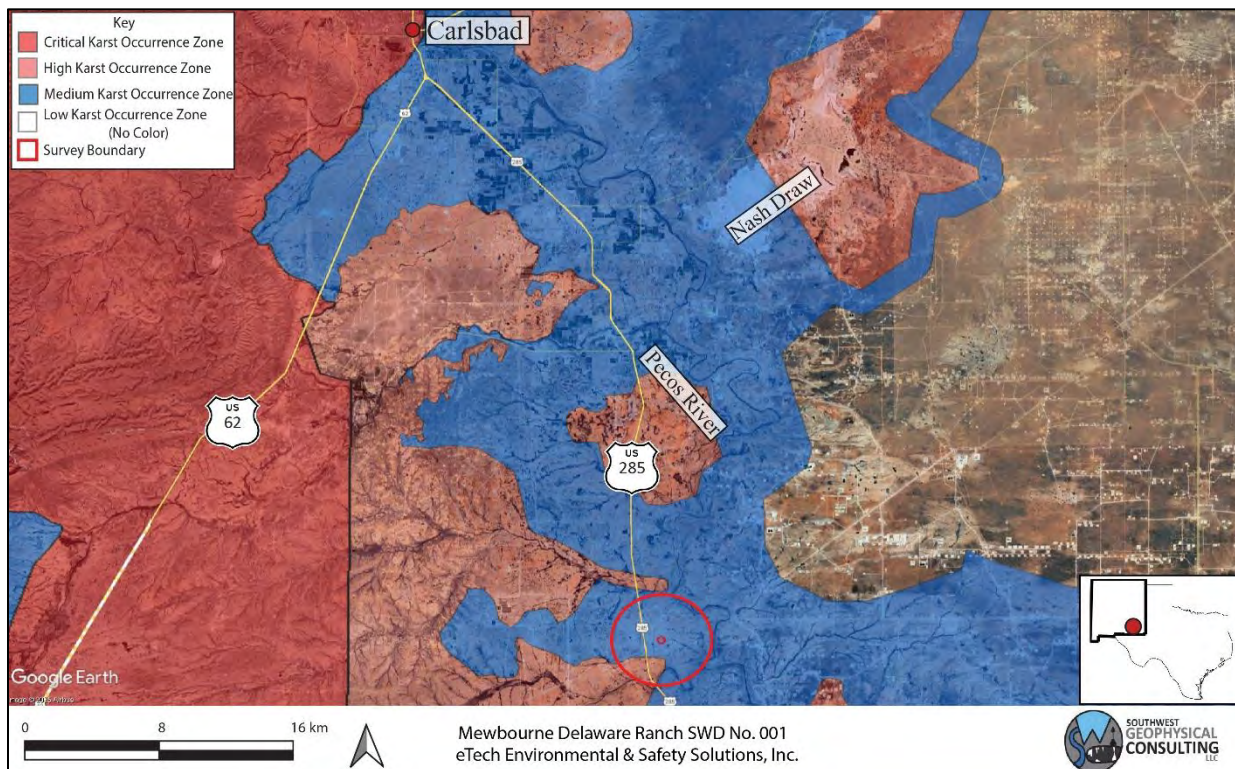


Figure 1: Karst occurrence zone overview. Background image credit: Google Earth. Image date: February 6, 2025. Image datum: WGS-84.

#### **1.4 Limitations of Report**

This report should be read in full. No responsibility is accepted for the use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

This report has been prepared for the use of eTech Environmental & Safety Solutions, Inc., in accordance with generally accepted consulting practices. Every effort has been made to ensure the information in this report is accurate as of the time of its writing. This report has not been prepared for use by parties other than the client, their contracting party, and their respective consulting advisors. It may not contain sufficient information for the purposes of other parties or for other uses.

This report was prepared upon completion of the associated fieldwork using a standard template prepared by Southwest Geophysical Consulting and is based on information collected prior to fieldwork, conditions encountered on site, and data collected during the fieldwork and reviewed at the time of preparation. Southwest Geophysical Consulting disclaims responsibility for any changes that might have occurred at the site after this time. The interpreted results, locations, and depths noted in this report (if applicable) should be taken as an interpretation only and no decision should be based solely on this information. Physical verification of aerial imagery analysis results should be conducted in the field prior to using this information for remediation planning. Physical verification of geophysical results using geotechnical methods should be conducted.

To the best of our knowledge, the information contained in this report is accurate at the date of issue. Due to the nature of karst terrain, the information in this report shall not be used beyond two years past the date of the field work provided in section **2.3 Description of Survey**. Large weather events can shorten this time period as areas subject to karst development can rapidly form new features subsequent to these events.

## 2.0 LOCATION AND DESCRIPTION OF STUDY AREA

### 2.1 Description of Site

The site is located 44.0 kilometers (27.3 miles) south-southeast of Carlsbad, New Mexico, northeast of the junction of Whitehorn Road and U.S. Highway 285. The release area is located within the SE ¼ section of section 11, NM T26S R28E<sup>[6]</sup> (**Figure 1** and **Figure 2**). The region has rolling terrain with karstification occurring in the gypsite soils and underlying gypsum and dolomite bedrock<sup>[7]</sup> (see section **2.2 Local Geology Summary** for further information). The climate in this area of southeast New Mexico is semi-arid with an average annual precipitation of approximately 13 inches, of which about two-thirds falls as rain during summer thunderstorms from June to October. Summers are hot and sunny while winters are generally mild, with an average maximum temperature of 96°F in July and an average minimum temperature of 28°F in January<sup>[8]</sup>. This area is within the Chihuahuan Desert Thornscrub as defined by the Southwestern Regional ReGAP Vegetation map<sup>[9]</sup> and the vegetation consists mostly of areas of blue grama, nine-awned pappus grass, burro grass and low scrub including yucca. The spill delineation boundary is located within an MKOZ<sup>[5]</sup> (**Figure 1**) and within privately managed land<sup>[10]</sup> (**Figure 2**).

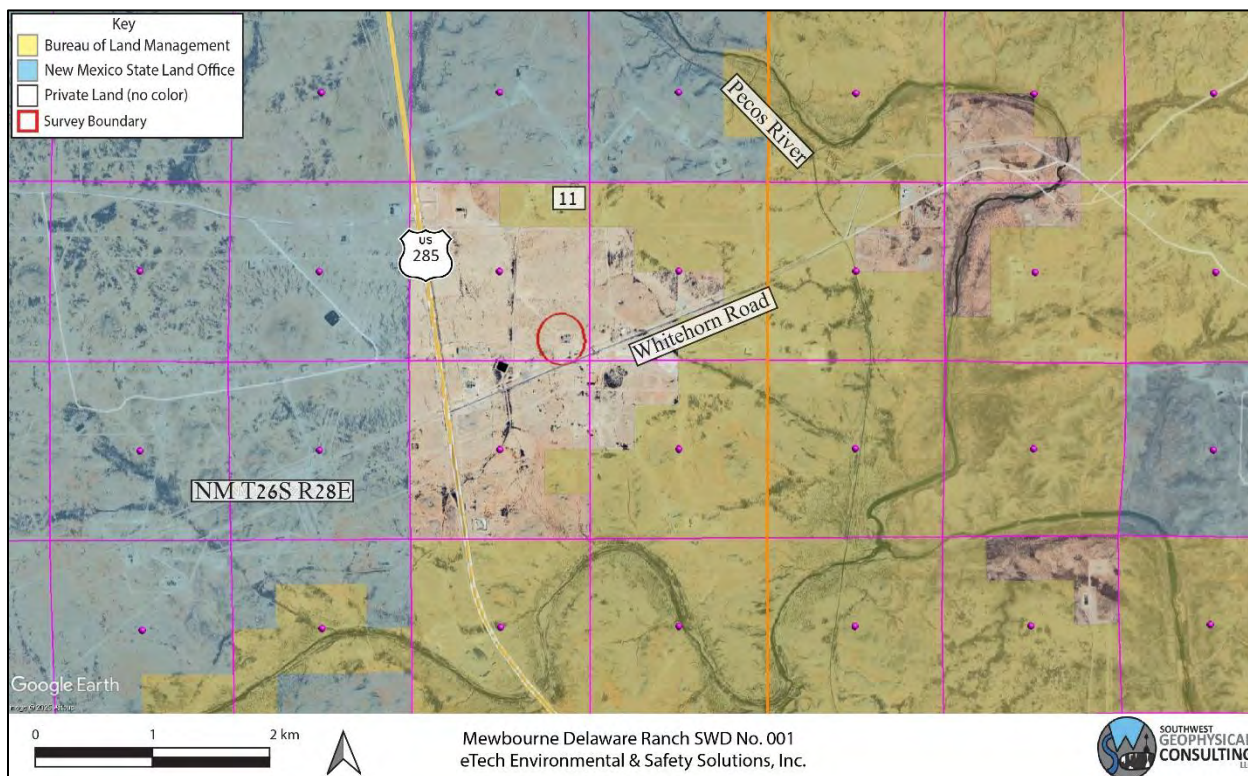


Figure 2: Land ownership and PLSS overview. Background image credit: Google Earth. Image date: February 6, 2025. Image datum: WGS-84.

## 2.2 Local Geology Summary

The site for the DRS1 survey is located at an elevation of 902 meters (2,959 feet), ± 2 meters (6.6 feet). This region is entirely underlain by the Permian Rustler Formation (Pru). The area is mantled by thin gypsiferous soils (gypsite) and alluvium (Qal)<sup>[11]</sup> up to 5 meters in depth (Figure 3).

The Rustler Formation is an evaporite facies composed mainly of thin siltstones and sandstones interbedded with claystones, dolomite, and gypsum, and contains both karst-forming strata (the Forty-niner and Tamarisk members) and two shallow aquifers (the Magenta and Culebra Dolomite members)<sup>[12]</sup>.

The Pru overlies the Permian Salado Formation (Psl – not shown in the image below), a layer of extremely soluble halite which can readily dissolve to create caves, sinkholes, and other karst features; however, due to its extremely soluble nature, only non-soluble silt and sand remain from the dissolution of this layer at the surface<sup>[12]</sup>. The Rustler Formation may be subject to collapse if a void has developed beneath it in the Salado Formation<sup>[13]</sup>.

The survey area is covered by the easily accessible Geologic Map of New Mexico (2003) at 1:500,000 scale<sup>[14]</sup> and the Digital Geologic Map of New Mexico in ARC/INFO Format<sup>[11]</sup>.

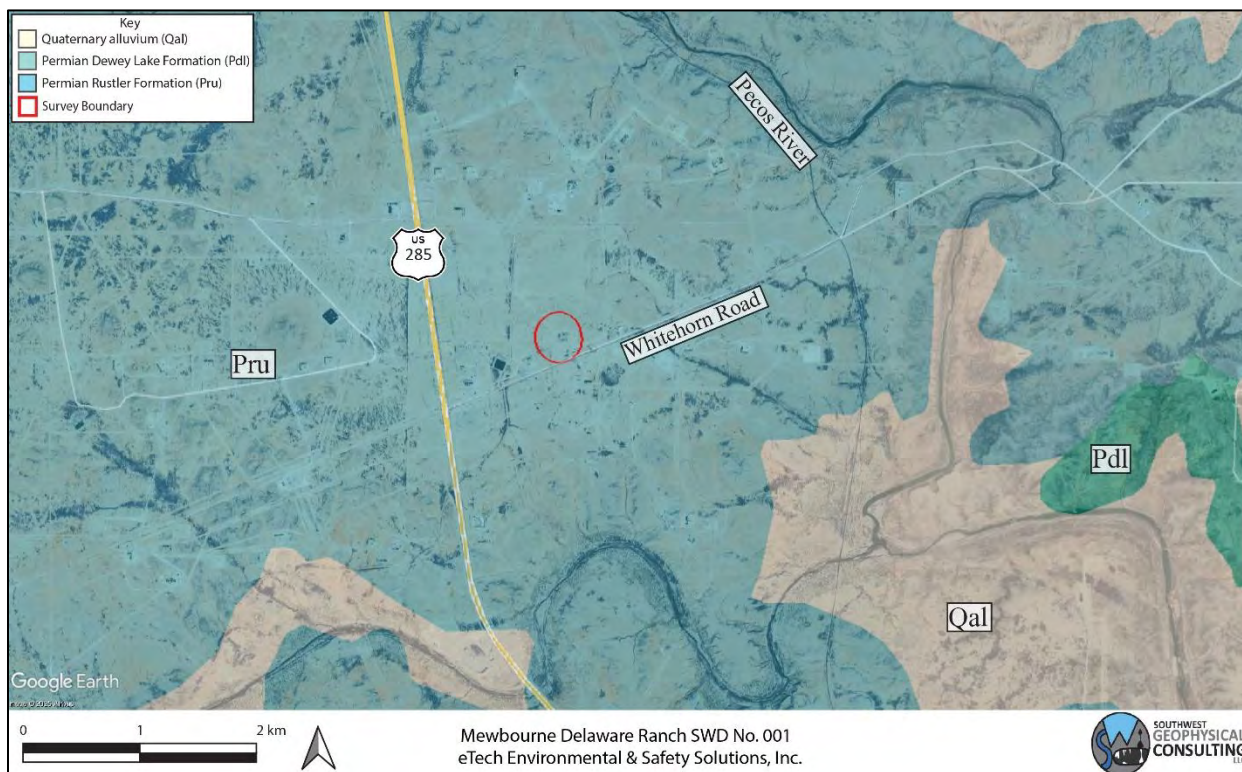


Figure 3: Geology overview. Geology map credit: The Digital Geologic Map of New Mexico in ARC/INFO Format. Background image credit: Google Earth. Image date: February 6, 2025. Image datum: WGS-84.

## 2.3 Description of Survey

### 2.3.1 Surface Karst Survey

Southwest Geophysical Consulting, in partnership with SWCA Environmental Consultants, provides surface karst surveys using small, uncrewed aerial systems (sUAS) that are flown by qualified, FAA licensed drone pilots and that meet the stringent Bureau of Land Management – Carlsbad Field Office requirements for both pedestrian and aerial karst surveys.

The surface karst survey includes a desk study prior to the flight which allows us to provide client feedback in the event of any previously known karst features in the area. The desk study is performed out to 305 meters (1,000 feet) from the spill delineation boundary per New Mexico Oil Conservation Division guidance<sup>[1]</sup> (**Figure 4**). The study was performed using satellite and aerial imagery from Google Earth Pro dated February 6, 2025 (please note features less than one meter in diameter are generally not visible using this method); the Southwest Geophysical Cave and Karst Database dated May 20 2025<sup>[15]</sup>; the Red Bluff, NM, 1:24,000 quad, 1985, USGS topographic map; and the latest lidar imagery from CalTopo.com. Please note that we use older topographic maps because newer maps have had caves removed from them. These searches and queries returned no results within the survey boundary.

Surface karst surveys are conducted by sUAS at low elevation within 200 meters of the spill delineation boundary<sup>[4]</sup> (**Figure 4**) following a preplanned raster pattern flightpath designed for the purpose of generating at least 75% imagery overlap. The collected high-resolution, georeferenced imagery is stitched together to develop orthomosaic imagery which is further developed into a digital elevation model (DEM); the DEM is then processed into a local relief model (LRM) (**Figure 6**). This LRM is color coded to enhance differences in elevation of as little as five centimeters. The orthoimagery, DEM, and LRM are uploaded to a server where they are analyzed by an experienced karst geologist. Finally, the data is reviewed by a senior karst geologist for quality assurance and downloaded into a table for inclusion in a written report<sup>[16]</sup>.

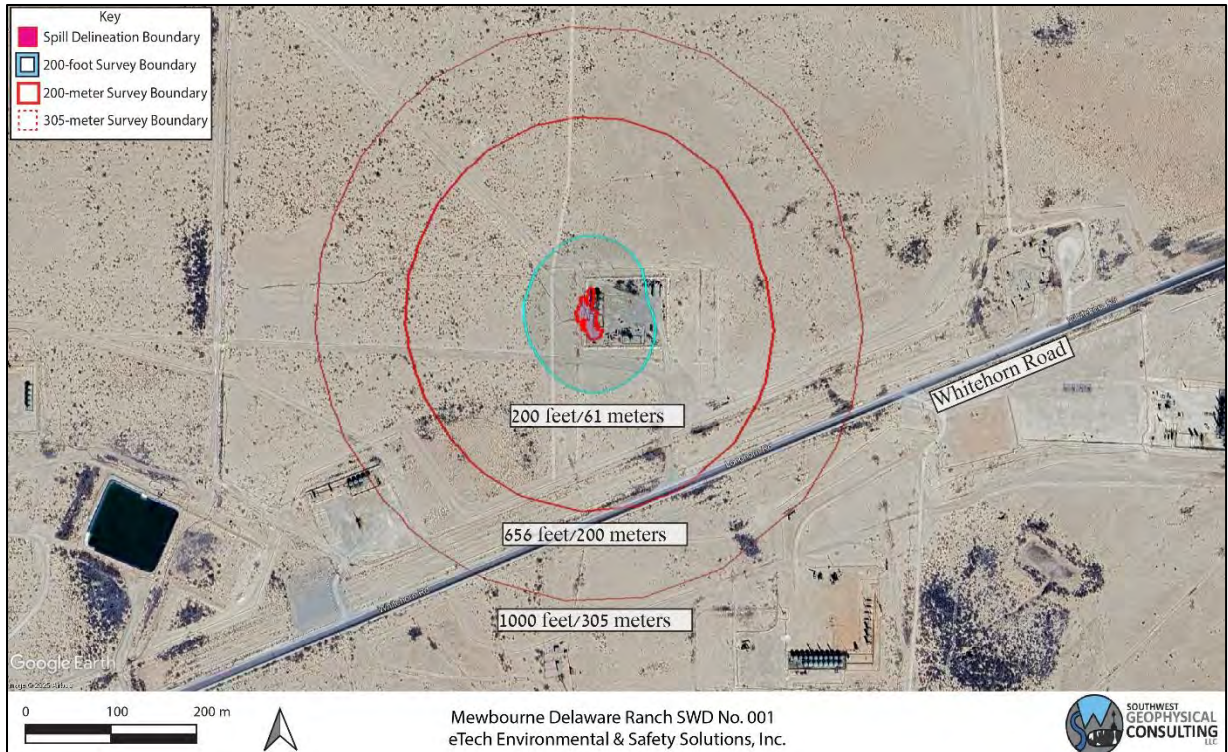


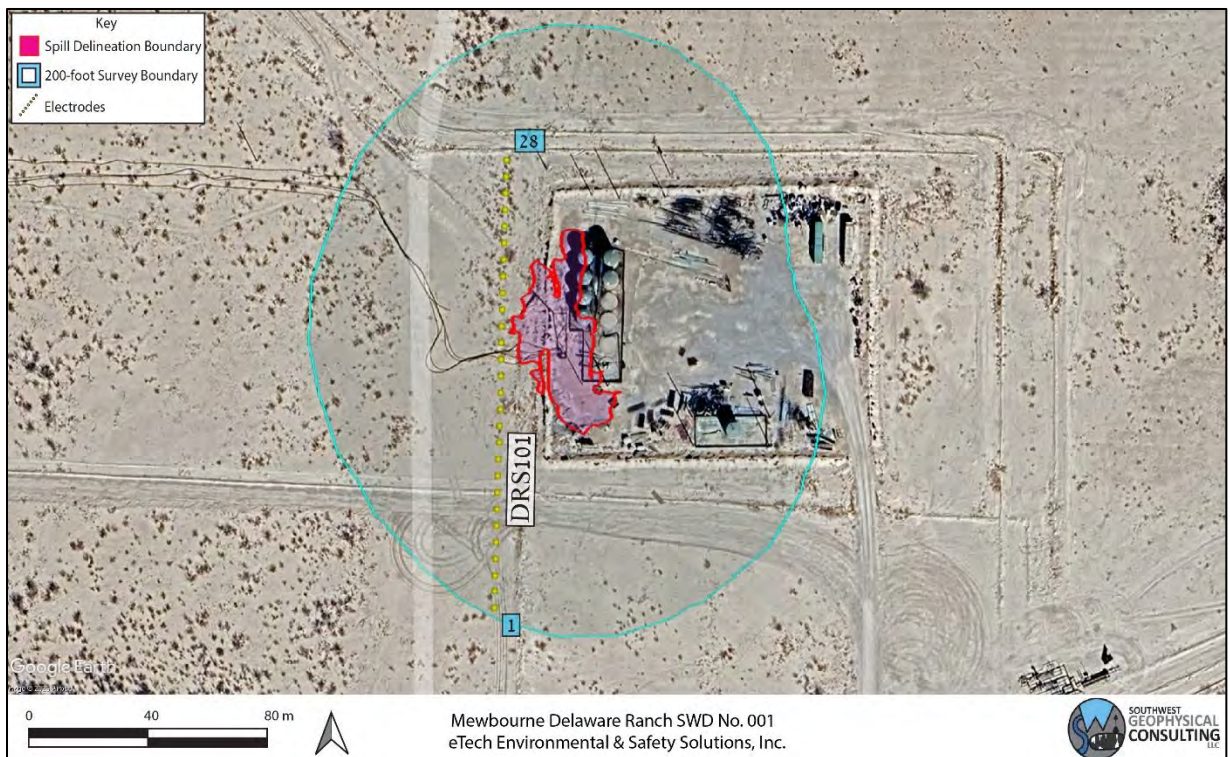
Figure 4: Surface survey overview. Background image credit: Google Earth. Image date: February 6, 2025. Datum: WGS-84.

The resolution of the orthoimagery is clear enough that features as small as 10 centimeters can be positively identified in most circumstances. Occasionally there are ambiguous features identified during an aerial survey that will need to be checked in the field if they are impacted by the proposed remediation efforts. Specifically, it is difficult to tell the difference between solution tubes, abandoned uncased well bores, and some burrows in drone imagery. If an ambiguous feature is located during imagery analysis, it is marked with a yellow dot in **Figure 6**. If a feature of any likelihood is subsequently verified in the field prior to publication of the report, the dot will be changed to a red triangle if confirmed as a karst feature or deleted if not.

The imagery for this study was collected via aerial survey by Pat Lagodney of SWCA on July 30, 2025. Surface karst features may have developed after this date and will not be noted in this report. Imagery analysis was completed by Britt Bommer of Southwest Geophysical Consulting August 7, 2025.

### 2.3.2 Geophysical Survey

For this survey, a Guideline Geo Terrameter LS 2 and a 28-electrode array of 40-centimeter-long electrodes were used to image the subsurface. This survey consisted of one resistivity line in a dipole-dipole configuration laid out south to north. This line consisted of 28 electrodes at 5-meter spacing, resulting in a 135-meter-long array (**Figure 5, Table 1**). A preconfigured protocol file was used to run the data collection (DipoleDipole3x14). This electrode configuration provided a depth of investigation of 27 meters (89 feet) and a resolution of 2.5 to 3.0 meters (8.2 to 9.8 feet) within the first 5 to 8 meters (16 to 26 feet) from the surface. A Leica GS18 GPS was used to record electrode locations and elevations.



**Figure 5: Geophysical survey overview. One survey line was conducted with 28 electrodes each at 5-meter spacing (yellow dots denoted with blue numbers). Background image credit: Google Earth. Image date: February 6, 2025. Image datum: WGS-84.**

**Table 1** provides basic line data. Detailed information including electrode number, location in latitude/longitude (decimal degree format), and elevation in meters can be found in the accompanying data files.

**Table 1: Survey Line Data Table.** The .kmz file contains all the points for the survey line listed in the file name. These data are available in the accompanying files DRS1\_ERI\_Points.xlsx and ETEC-020-20250723\_DRS1\_Data\_Files.kmz.

File Name:	Completed By:	Date:
DRS101.kmz	Garrett Jorgensen Olague – Senior Field Geologist Britt Bommer – Field Geologist Aaron Beirl – Field Geologist	8/19/2025

EarthImager™ 2D software was used to download and process the data and to provide the model used to make our interpretations. The design of the survey and the orientation of each of the lines provides the information necessary to make the determination of “stable” or “unstable” ground at this site.

A typical starting model was used for the data processing due to the two-layer model of the geology in the area; specifically, generally high-resistivity gypsum and dolomite at the surface and low-resistivity saturated gypsum and dolomite bedrock at depth. The starting model used was “average apparent resistivity” and a default inversion setting of “surface,” with a minimum apparent resistivity set to 0.1 Ohm-meters (Ohm-m or Ω-m) and a max apparent resistivity set to 100,000 Ω-m (**Table 2**).

**Table 2: Software Information and Settings**

Software Name:	EarthImager™ 2D
Version:	2.4.4.649
Starting Model:	Average Apparent Resistivity
Default Inversion Settings:	Surface
Changes to Default Inversion Settings:	Max Apparent Resistivity = 100 kΩ-m Min Apparent Resistivity = 0.1 Ω-m

**Note:** Raw data files (.dat files for EarthImager™ 2D) and processed data (.trn files, terrain files for surface correction in EarthImager™ 2D and .out files, the processed .dat files) are available upon request.

All field work, including setup, stow, and travel, was completed by Garrett Jorgensen Olague, Britt Bommer, and Aaron Beirl on August 19, 2025.

### 3.0 RESULTS

#### 3.1 Surface Karst Survey

The desk study and surface karst survey showed no surface karst features located within the 200-foot (61-meter)<sup>[1]</sup> survey area surrounding the spill delineation boundary (Figure 6).

No springs exist within the 305-meter (1,000-foot)<sup>[1]</sup> survey boundary (Figure 6).

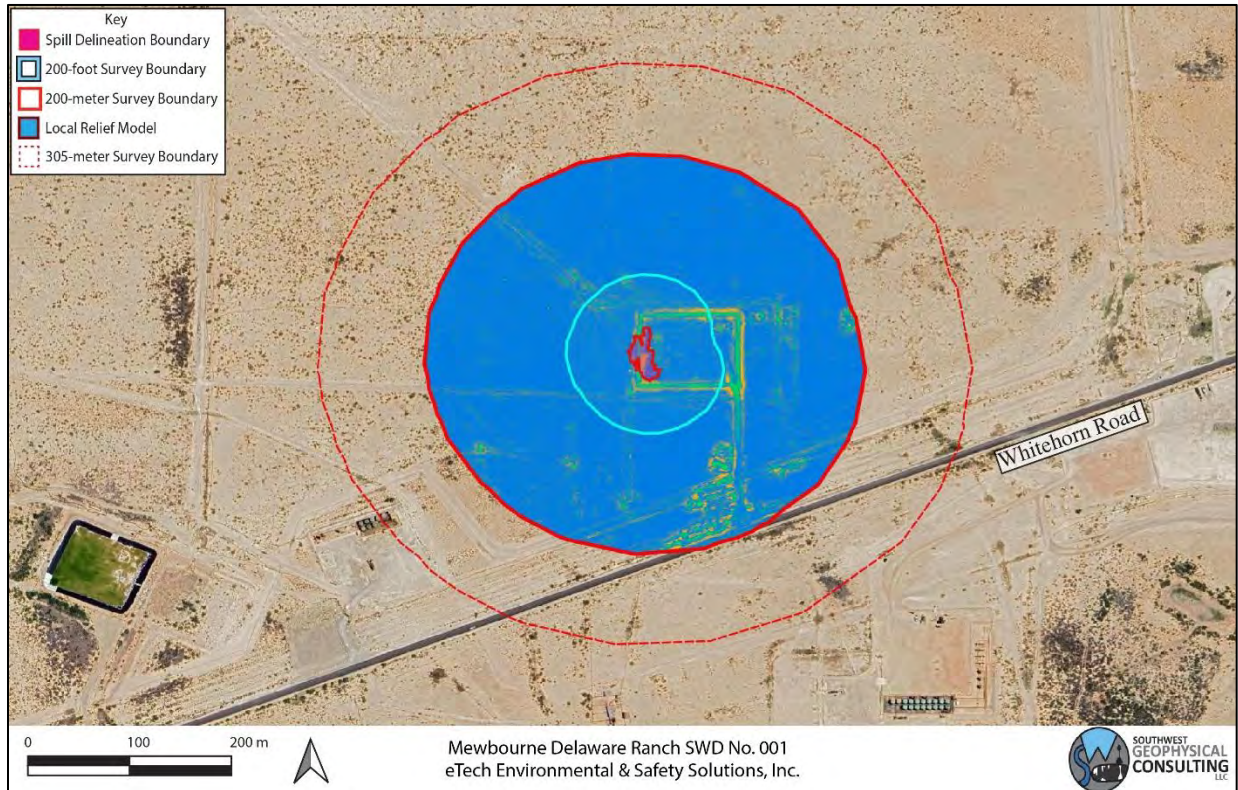
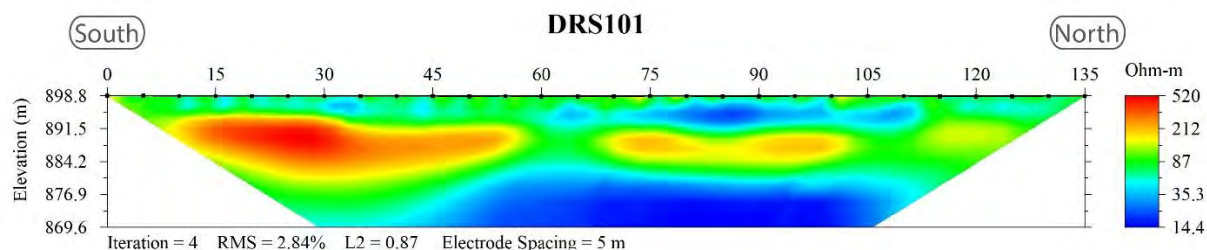


Figure 6: Surface karst survey results. Background image credit: Google Earth. Image date: February 6, 2025. Image datum: WGS-84.

### 3.2 Geophysical Survey

Electrical resistivity tomography forms images of the subsurface by causing a current to flow through the rock and soil and then measuring the resistance of these materials as the current flows through them. This measurement is taken many times and the resulting data, once processed, is used to produce a model of the subsurface (**Figure 7**). This model is produced using "non-unique" solutions, which means that there are many models and interpretations which will satisfy the data. Using experience and knowledge of the local geology, a high-confidence model can be established and used to develop an accurate understanding of what lies below the surface. This survey was conducted with the express purpose of locating subsurface voids and does not purport to find paleokarst (old, non-active karst features that have been filled in with sand and sediment) or nascent karst features below the resolution limit of the survey.

The results of this study indicate a well-layered geologic system with low resistivities between 14.4 and 220 Ohm-m with one slightly higher-than-average area of 520 Ohm-m (**Figure 7**). Please keep in mind when viewing the 2D inverted resistivity sections that color maps can be widely different for each view. Always check the color map located on the right side of the image when viewing the 2D images to ensure you understand the range of resistivities presented. Distances along the top and depths along the left side are in meters. The color map along the right side is in Ohm-m. Due to the nature of the survey, shallower zones have higher resolution between electrodes than deeper zones; therefore, small features at depth will not be visible.



**Figure 7: 2D inverted resistivity section. Reds and oranges indicate higher resistivity values. Yellows and greens are medium-resistivity values. Blues are low-resistivity values. Please note that the color scale is relative.**

#### 4.0 DISCUSSION

No surface karst features and no anomalies consistent with air-filled subsurface voids are found within the DRS1 survey area. However, small solutionally enlarged voids or fractures at or near the resolution limit of the survey (2.5 – 3.0 meters) may be present.

Areas of moderate resistivity (yellows, and greens) near the surface are interpreted as dry gypsite soils and gypsum or dolomite bedrock of the Rustler Formation<sup>[17]</sup> (**Figure 7** and **Figure 8**). Very low-resistivity areas between 14.4 – 25 Ohm-m may either represent fluid from the brine release, surface-to-subsurface hydrologic pathways, or a layer of either clays and halite lenses or moist or saturated layers within the Rustler Formation (**Figure 7** and **Figure 8**).

Please remember that these are interpretations made from knowledge of the local subsurface materials and experience. **They remain interpretations until verified by geotechnical methods.** Employing a BLM-CFO approved karst monitor on site during any drilling and/or remediation activities that require excavation below four feet in depth should be considered.

Fracture sets within the subsurface can act as hydrologic pathways to the water table. Rapid dissolution of gypsum can occur along these pathways creating solution-enlarged fractures, and in some cases, voids within months to years. For this reason, this survey is valid only for this remediation event.

Within karst terrains like the project site, small air- or sediment-filled voids and/or brecciated zones and solutionally enlarged fractures that are below the resolution limit of the survey (2.5– 3.0 meters) may exist; these may be encountered during excavation, and if so, should be evaluated by a karst specialist prior to continued work.

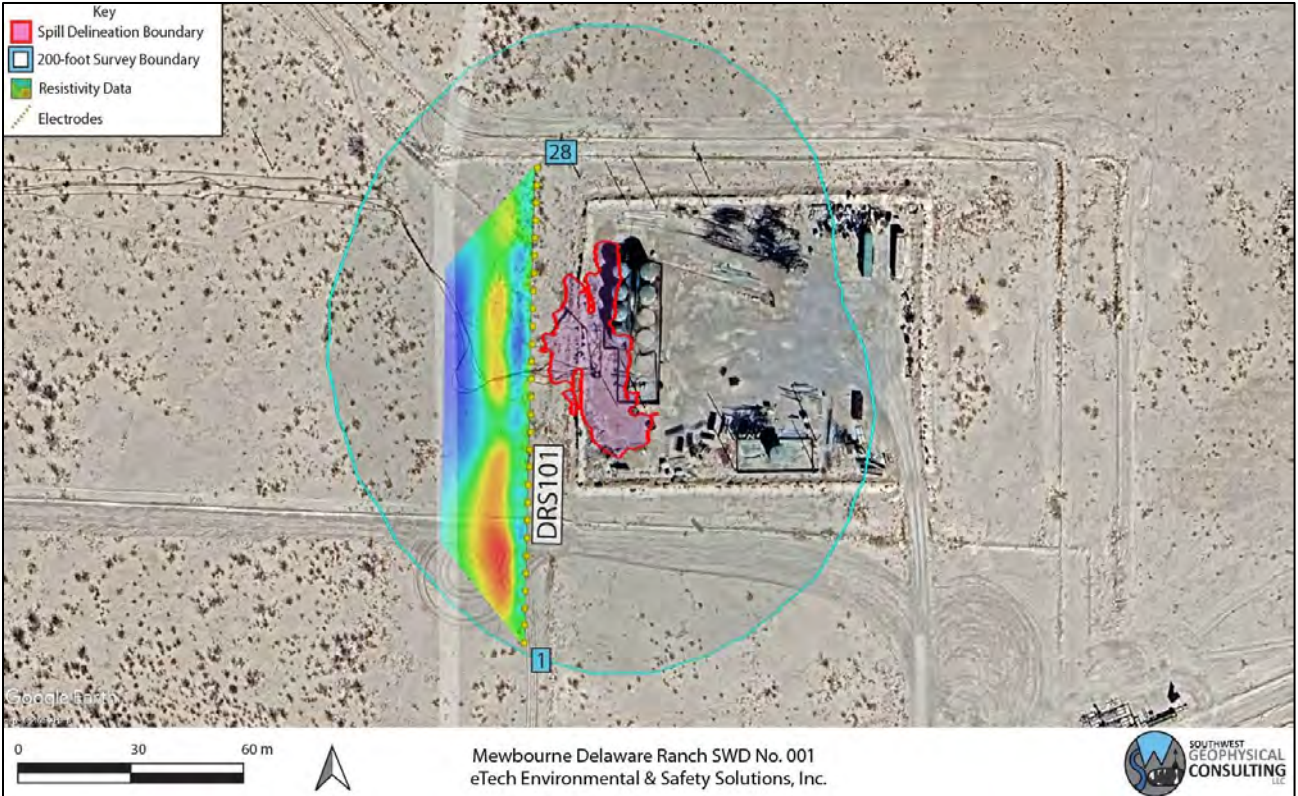


Figure 8: Data overlay. Colored trapezoid is the 2D inverted resistivity line. Background image credit: Google Earth. Image date: February 6, 2025.

## 5.0 SUMMARY

- **The DRS1 survey contains no surface karst features within 200 feet (61 meters) of the spill delineation boundary.**
- **No shallow anomalies interpreted as large voids or related karst features that would present a danger to equipment operators are located within the geophysical survey area.**
- Intercepting a void during remediation is unlikely, but still possible. Small voids or solutionally enlarged fractures below the resolution limit of the survey may be encountered.
- **Well-layered stratigraphy is interpreted to exist beneath the geophysical survey line indicating stable ground in the area of the subsurface investigation.**
- When conducting any remediation activities in this area, employing a BLM-CFO approved karst monitor on site should be considered.

## 6.0 DISCLOSURE STATEMENT

Karst occurrence zones are prone to rapid karst formation and warrant careful planning and engineering to mitigate karst-forming processes that could be accelerated by removal of surface cover or the vibrations associated with heavy equipment used in the remediation process.

Mitigation measures for any karst features revealed during excavation shall be approved by the Bureau of Land Management – Carlsbad Field Office and follow the Natural Resources Conservation Service Conservation Practice Standard for Karst Sinkhole Treatment, Code 527, or the Bureau of Land Management Cave and Karst Management Handbook, H-8380-1.

Vigilance during remediation activities is paramount. If voids are encountered during excavation, contact the Bureau of Land Management Karst Division at (575) 234-5972, the New Mexico State Land Office Surface Resources Division at (505) 827-5768, or a BLM-CFO approved karst contractor and request an on-site investigation from a karst expert if one is not already on site. A karst consultant can generally be available in Eddy County within five hours.

Approved karst monitors should have karst feature identification training, at least two years of supervised experience identifying karst features, wilderness first aid training, SRT training, confined space training, gas monitor training, and a minimum of SPAR cave rescue training through NCRC. They should have with them the proper gear and be prepared both physically and mentally to enter a collapse feature within minutes to perform a rescue if needed. Monitoring services with qualified karst monitors, as well as cave surveys and geophysical surveys, are available from Southwest Geophysical Consulting.

Under no circumstances should an untrained, inexperienced person enter a cave, pit, sinkhole, or collapse feature. All field employees of Southwest Geophysical Consulting have extensive caving experience and the ability to determine whether entry into a karst feature is safe or presents a hazard. In the event it is necessary to enter a karst feature, Southwest Geophysical Consulting can provide these services on request.

Cave and karst resource inventory reports, karst feature investigations, and geophysical reports (along with the associated data files) commissioned at the request of the land manager should be submitted to BLM-CFO at [blm\\_nm\\_karst@blm.gov](mailto:blm_nm_karst@blm.gov).

Cave and karst resource inventory reports for the NMSLO should be submitted to the respective project manager.

Environmental karst reports should be submitted to the appropriate project manager at the New Mexico Oil Conservation Division.

## 7.0 REFERENCES

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**8.0 GLOSSARY OF TERMS**

AGI	Advanced Geosciences Inc.
BLM-CFO	Bureau of Land Management - Carlsbad Field Office
brecciated	Fractured rock caused by faulting or collapse.
caprock-collapse sinkhole	Collapse of roof-spanning rock into a cave or void.
cave	Natural opening at the surface large enough for a person to enter.
cover-collapse sinkhole	Collapse of roof-spanning soil or clay ground cover into a subsurface void.
ERI	Electrical Resistivity Imaging
GPS	Global Positioning System
grike	A solutionally enlarged, vertical, or sub-vertical joint or fracture.
(H)	High confidence modifier for a PKF. This is typically reserved for a feature that is definitely karst but has not been confirmed in the field.
HKOZ	High Karst Occurrence Zone
karst	A landscape containing solutional features such as caves, sinkholes, swallets, and springs.
(L)	Low confidence modifier for a PKF. This is typically a feature that cannot be ruled out as karst but is most likely NOT karst related. This modifier may also be used for pseudokarst features.
(M)	Medium confidence modifier for PKF. This is an ambiguous feature that can't be positively identified as karst without a field visit (e.g., burrows, abandoned unlined wells, solution tubes, pseudokarst).
MKOZ	Medium Karst Occurrence Zone
NCRC	National Cave Rescue Commission
NKF	Non-karst feature. Used for features originally identified as PKF that have been subsequently identified in the field as non-karst related. This term may also be used for pseudokarst features.
NMSLO	New Mexico State Land Office
Ohm-m	Ohm-meter, a unit of measurement for resistivity. Sometimes abbreviated $\Omega$ -m.
paleokarst	Previously formed karst features that have been filled in by erosion and/or deposition of minerals.
Pat	Permian Artesia Group
Pc	Permian Capitan Formation
Pcs	Permian Castile Formation
Pdl	Permian Dewey Lake Formation
PKF	Possible karst feature. This term is reserved for features identified in satellite or aerial imagery that have NOT been visited in the

	field. Further modifiers include (H) for high confidence, (M) for medium confidence, and (L) for low confidence. These confidence levels are based on field experience.
PLSS	Public Land Survey System
Pqg	Permian Queen/Greyburg Formation
Pru	Permian Rustler Formation
pseudokarst	Karst-like features (sinkholes, conduits, voids etc.) that are not formed by dissolution. These types of features include soil piping, lava tubes, and some cover-collapse and suffosion sinkholes.
Psl	Permian Salado Formation
Psr	Permian Seven Rivers Formation
Pt	Permian Tansill Formation
Py	Permian Yates Formation
Qal	Quaternary alluvium
Qe	Quaternary eolian deposits
Qp	Quaternary piedmont deposits
Qpl	Quaternary playa lake deposits
RKF	Recognized karst feature. This term is reserved for karst features that have been physically verified in the field.
SPAR	Small Party Assisted Rescue
sUAS	Small, uncrewed aerial system
suffosion sinkhole	Raveling of soil into a pre-existing void or fracture.
swallet	A natural opening in the surface, too small for a person, that drains water to an aquifer. Some are "open," meaning a void can be seen below; some are "closed," meaning they are full of sediment.
SWG	Southwest Geophysical Consulting, LLC
UTM	Universal Transverse Mercator (projected coordinates)
(V)	Field verified modifier for a RKF. This indicates that the feature has been visited by a qualified karst professional in the field and fully identified
WGS	World Geodetic System (geographic coordinates)

## 9.0 ATTESTATION

### David D. Decker, PhD, PG, CPG

Chief Executive Officer, Principal Geologist

Southwest Geophysical Consulting, LLC

5117 Fairfax Dr. NW

Albuquerque, NM 87114

[dave@swgeophys.com](mailto:dave@swgeophys.com)

(505) 585-2550

## CERTIFICATE OF AUTHOR

I, David D. Decker, a Licensed Professional Geologist and a Certified Professional Geologist, do certify that:

- I am currently employed as a consulting geologist in the specialty of caves and karst with an office address of 5117 Fairfax Dr. NW, Albuquerque, NM, USA, 87114.
- I graduated with a Master of Science in Applied Physics with a specialization in Sensor Systems from the Naval Post Graduate School in Monterey, California, in 2003, and a Doctor of Philosophy in Earth and Planetary Sciences from the University of New Mexico, Albuquerque, New Mexico, in 2018.
- I am a Licensed Professional Geologist in the State of Texas, USA (PG-15242) and have been since 2021. I am a Certified Professional Geologist through the American Institute of Professional Geologists (CPG-12123) and have been since 2021.
- I have been employed as a geologist continuously since 2016. I was previously employed as a Fire Controlman, Naval Flight Officer, and Aerospace Engineering Duty Officer in the U.S. Navy and operated, maintained, and installed various sensor systems including magnetic, electromagnetic, radar, communications, and acoustic systems in various capacities from 1986 through 2010.
- I have been involved in various aspects of cave and karst studies continuously since 1985, including exploration, mapping, and scientific studies.
- I have read the definition of “qualified karst professional” set out in the ASTM Standard Practice for Preliminary Karst Terrain Assessment for Site Development (ASTM E-1527). I meet the definition of “qualified professional” for the purposes of this standard.
- I am responsible for the content, compilation, and editing of all sections of report number ETEC-020-20250723 entitled, “Environmental Karst Study Report, Mewbourne Delaware Ranch SWD No. 001, Eddy County, New Mexico.” I or a duly authorized and qualified representative of Southwest Geophysical Consulting, LLC, have personally visited this site and/or reviewed the aerial imagery on the date or dates mentioned in section **2.3 Description of Survey**.

- I have no prior involvement nor monetary interest in the described property or project, save for my fee for conducting this investigation and providing the report.

Dated in Albuquerque, New Mexico, September 10, 2025.



David D. Decker  
PhD, CPG-12123



## **Appendix F**

# **Regulatory Correspondence**

**From:** OCDOnline@state.nm.us  
**Sent:** Thursday, August 21, 2025 3:01 PM  
**To:** Jeff Broom  
**Subject:** [EXT] The Oil Conservation Division (OCD) has accepted the application, Application ID: 498236

To whom it may concern (c/o Jeff Broom for MEWBOURNE OIL CO),

The OCD has received the submitted *Notification for (Final) Sampling of a Release (C-141N)*, for incident ID (n#) nAPP2521351232.

The sampling event is expected to take place:

**When:** 08/25/2025 @ 07:30

**Where:** P-11-26S-28E 0 FNL 0 FEL (32.05162,-104.05137)

**Additional Information:** Alyxis Sanchez, 432-241-2000

**Additional Instructions:** From the intersection of US-285 and Whitehorn Rd (32.045581, -104.062928), head E on Whitehorn Rd for 0.76 mi, then N for 0.13 mi, then W for 0.04 mi to arrive at the Delaware SWD (32.051497, -104.051978).

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**
- **If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

**From:** OCDOnline@state.nm.us  
**Sent:** Thursday, August 21, 2025 3:03 PM  
**To:** Jeff Broom  
**Subject:** [EXT] The Oil Conservation Division (OCD) has accepted the application, Application ID: 498238

To whom it may concern (c/o Jeff Broom for MEWBOURNE OIL CO),

The OCD has received the submitted *Notification for (Final) Sampling of a Release (C-141N)*, for incident ID (n#) nAPP2521351232.

The sampling event is expected to take place:

**When:** 08/26/2025 @ 07:30

**Where:** P-11-26S-28E 0 FNL 0 FEL (32.05162,-104.05137)

**Additional Information:** Alyxis Sanchez, 432-241-2000

**Additional Instructions:** From the intersection of US-285 and Whitehorn Rd (32.045581, -104.062928), head E on Whitehorn Rd for 0.76 mi, then N for 0.13 mi, then W for 0.04 mi to arrive at the Delaware SWD (32.051497, -104.051978).

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**
- **If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

**From:** OCDOnline@state.nm.us  
**Sent:** Thursday, August 21, 2025 3:05 PM  
**To:** Jeff Broom  
**Subject:** [EXT] The Oil Conservation Division (OCD) has accepted the application, Application ID: 498240

To whom it may concern (c/o Jeff Broom for MEWBOURNE OIL CO),

The OCD has received the submitted *Notification for (Final) Sampling of a Release (C-141N)*, for incident ID (n#) nAPP2521351232.

The sampling event is expected to take place:

**When:** 08/27/2025 @ 07:30

**Where:** P-11-26S-28E 0 FNL 0 FEL (32.05162,-104.05137)

**Additional Information:** Alyxis Sanchez, 432-241-2000

**Additional Instructions:** From the intersection of US-285 and Whitehorn Rd (32.045581, -104.062928), head E on Whitehorn Rd for 0.76 mi, then N for 0.13 mi, then W for 0.04 mi to arrive at the Delaware SWD (32.051497, -104.051978).

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**
- **If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

**From:** OCDOnline@state.nm.us  
**Sent:** Thursday, August 21, 2025 3:08 PM  
**To:** Jeff Broom  
**Subject:** [EXT] The Oil Conservation Division (OCD) has accepted the application, Application ID: 498241

To whom it may concern (c/o Jeff Broom for MEWBOURNE OIL CO),

The OCD has received the submitted *Notification for (Final) Sampling of a Release (C-141N)*, for incident ID (n#) nAPP2521351232.

The sampling event is expected to take place:

**When:** 08/28/2025 @ 07:30

**Where:** P-11-26S-28E 0 FNL 0 FEL (32.05162,-104.05137)

**Additional Information:** Alyxis Sanchez, 432-241-2000

**Additional Instructions:** From the intersection of US-285 and Whitehorn Rd (32.045581, -104.062928), head E on Whitehorn Rd for 0.76 mi, then N for 0.13 mi, then W for 0.04 mi to arrive at the Delaware SWD (32.051497, -104.051978).

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**
- **If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

**From:** OCDOnline@state.nm.us  
**Sent:** Thursday, August 21, 2025 3:10 PM  
**To:** Jeff Broom  
**Subject:** [EXT] The Oil Conservation Division (OCD) has accepted the application, Application ID: 498243

To whom it may concern (c/o Jeff Broom for MEWBOURNE OIL CO),

The OCD has received the submitted *Notification for (Final) Sampling of a Release (C-141N)*, for incident ID (n#) nAPP2521351232.

The sampling event is expected to take place:

**When:** 08/29/2025 @ 07:30

**Where:** P-11-26S-28E 0 FNL 0 FEL (32.05162,-104.05137)

**Additional Information:** Alyxis Sanchez, 432-241-2000

**Additional Instructions:** From the intersection of US-285 and Whitehorn Rd (32.045581, -104.062928), head E on Whitehorn Rd for 0.76 mi, then N for 0.13 mi, then W for 0.04 mi to arrive at the Delaware SWD (32.051497, -104.051978).

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**
- **If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

**From:** OCDOnline@state.nm.us  
**Sent:** Thursday, August 21, 2025 3:12 PM  
**To:** Jeff Broom  
**Subject:** [EXT] The Oil Conservation Division (OCD) has accepted the application, Application ID: 498247

To whom it may concern (c/o Jeff Broom for MEWBOURNE OIL CO),

The OCD has received the submitted *Notification for (Final) Sampling of a Release (C-141N)*, for incident ID (n#) nAPP2521351232.

The sampling event is expected to take place:

**When:** 08/30/2025 @ 07:30

**Where:** P-11-26S-28E 0 FNL 0 FEL (32.05162,-104.05137)

**Additional Information:** Alyxis Sanchez, 432-241-2000

**Additional Instructions:** From the intersection of US-285 and Whitehorn Rd (32.045581, -104.062928), head E on Whitehorn Rd for 0.76 mi, then N for 0.13 mi, then W for 0.04 mi to arrive at the Delaware SWD (32.051497, -104.051978).

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**
- **If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

**From:** OCDOnline@state.nm.us <OCDOnline@state.nm.us>

**Sent:** Wednesday, December 17, 2025 9:28 AM

**To:** Jeff Broom <jbroom@mewbourne.com>

**Subject:** The Oil Conservation Division (OCD) has rejected the application, Application ID: 516386

To whom it may concern (c/o Jeff Broom for MEWBOURNE OIL CO),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2521351232, for the following reasons:

- **This application has been rejected because the C-141 is incomplete. The submitted application indicates a conflict between the questions answered and the attachments that have been submitted. For example the answer Yes was selected when requesting a remediation closure report approval; however, your attachments indicate that your intent is to request a deferral request approval. Please review the December 1, 2023 Public Notice titled Implementation of Digital C-141 and New Incident Statuses found on the EMNRD website. Review your C-141 submission and submit a new C-141 answering the appropriate questions for your circumstance.**
- **Have not fully delineated the area being deferred. Mewbourne has 90-days (March 17, 2026) to submit its appropriate or final remediation closure report.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 516386.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,

Nelson Velez

Environmental Specialist - Advanced

505-469-6146

[Nelson.Velez@emnrd.nm.gov](mailto:Nelson.Velez@emnrd.nm.gov)

**New Mexico Energy, Minerals and Natural Resources Department**

1220 South St. Francis Drive

Santa Fe, NM 87505

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 556432

**QUESTIONS**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 556432
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2521351232
Incident Name	NAPP2521351232 DELAWARE RANCH SWD #1 @ 30-015-22734
Incident Type	Produced Water Release
Incident Status	Deferral Request Received
Incident Well	[30-015-22734] DELAWARE RANCH SWD #001

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	DELAWARE RANCH SWD #1
Date Release Discovered	07/18/2025
Surface Owner	Private

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
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

<b>Nature and Volume of Release</b>	
<i>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.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Pipeline (Any)   Produced Water   Released: 69 BBL   Recovered: 40 BBL   Lost: 29 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)	Not answered.

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

General Information  
Phone: (505) 629-6116

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<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 556432

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 556432
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>Yes</b>
Reasons why this would be considered a submission for a notification of a major release	<b>From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.</b>
<i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i>	

**Initial Response**

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

The source of the release has been stopped	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: Jeff Broom Title: Environmental Rep Email: jbroom@mewbourne.com Date: 02/20/2026
--	---

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 3

Action 556432

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 556432
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

**Site Characterization**  
*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.*

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	Yes
<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 1000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 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 1000 (ft.) and ½ (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**  
*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.*

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

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	27000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	7420
GRO+DRO (EPA SW-846 Method 8015M)	5170
BTEX (EPA SW-846 Method 8021B or 8260B)	0.9
Benzene (EPA SW-846 Method 8021B or 8260B)	0

*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.*

On what estimated date will the remediation commence	08/22/2025
On what date will (or did) the final sampling or liner inspection occur	12/18/2025
On what date will (or was) the remediation complete(d)	08/28/2025
What is the estimated surface area (in square feet) that will be reclaimed	7197
What is the estimated volume (in cubic yards) that will be reclaimed	1066
What is the estimated surface area (in square feet) that will be remediated	5903
What is the estimated volume (in cubic yards) that will be remediated	50

*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. 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.*

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 4

Action 556432

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 556432
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

**Remediation Plan (continued)**

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.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Yes
In which state is the disposal taking place	Texas
What is the name of the out-of-state facility	R360 Red Bluff Facility
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

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 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: Jeff Broom Title: Environmental Rep Email: jbbroom@mewbourne.com Date: 02/20/2026
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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.

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QUESTIONS, Page 5

Action 556432

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 556432
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Deferral Requests Only</b>	
<i>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.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	Storage Tanks, and High / Low pressure lines.
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	1294
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	192
<i>Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.</i>	
Enter the facility ID (f#) on which this deferral should be granted	fAPP2125727348 DELAWARE RANCH SWD #1 BATTERY
Enter the well API (30-) on which this deferral should be granted	30-015-22734 DELAWARE RANCH SWD #001
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
<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: Jeff Broom Title: Environmental Rep Email: jbroom@mewbourne.com Date: 02/20/2026

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QUESTIONS, Page 6

Action 556432

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 556432
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>514447</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>10/15/2025</b>
What was the (estimated) number of samples that were to be gathered	<b>3</b>
What was the sampling surface area in square feet	<b>600</b>

<b>Remediation Closure Request</b>	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	<b>No</b>

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CONDITIONS

Action 556432

**CONDITIONS**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 556432
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	Deferral is approved. Remediation Due date will be left open until the site has been plugged and abandoned or a major facility deconstruction takes place.	3/31/2026