

# Remediation Summary & Soil Closure Request

## Mewbourne Oil Company Thundercloud 30/29 Battery #1

Lea County, New Mexico  
Unit Letter "D", Section 30, Township 18 South, Range 32 East  
Latitude 32.722926 North, Longitude 103.812344 West  
NMOCD Reference No. nAPP2408651560

Prepared By:

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## 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?	Direct Measurement
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?	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution or church?	> 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 and 5 (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?	Between 1 and 5 (mi.)
A wetland?	Between 1 and 5 (mi.)
A subsurface mine?	Greater than 5 (mi.)
A (non-karst) unstable area?	Between 1 and 5 (mi.)
Categorize the risk of this well/site being in a karst geology.	Low
A 100-year floodplain?	Greater than 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 Thundercloud Battery release site.

Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. In addition, on March 25, 2024, an investigative soil boring was drilled nearby in an effort to determine if shallow groundwater is present in the area. The soil boring was advanced to a total depth of approximately 105 feet bgs and left open for over 72 hours. No indications of inflow and/or accumulation of water were noted during the advancement of the soil boring or prior to plugging and abandonment. In addition, a groundwater gauging event conducted on April 4, 2024, confirmed that the borehole was dry. The location of the investigative soil bore is depicted in Figures 2A, 2B, and 4. A drilling log is provided in Appendix A.

Additional 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 4.

### 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 NMOCD Closure Criteria and NMOCD Reclamation Standards for the Thundercloud Battery release site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
Between 100 and 500 (ft.)	Chloride (Cl-)	EPA** 300.0 or SM4500 Cl B	20,000	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	2,500	100
	Gas Range Organics + Diesel Range Organics (GRO+DRO)	EPA SW-846 Method 8015M	1,000	N/A
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

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

\*\* Environmental Protection Agency

† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).

‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

### 4.0 REMEDIATION ACTIVITIES SUMMARY

Requesting a remediation plan approval with this submission?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Have the lateral and vertical extents of contamination been fully delineated?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Was this release entirely contained within a lined containment area?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
On what estimated date will (or did) the remediation commence?	5/9/2024	
On what date will (or did) the final sampling or liner inspection occur?	5/15/2024	
On what date will (or was) the remediation complete(d)?	5/28/2024	
What is the total surface area (sq. ft.) in need of or that will eventually be reclaimed?	12,056	
What is the total volume (cy) in need of or that will eventually be reclaimed?	653	
What was the total surface area (sq. ft.) that has or will be remediated?	12,056	
What was the total volume (cy) that has or will be remediated?	720	
This remediation utilized the following processes to remediate/reduce contaminants:		
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(In Situ) Soil Vapor Extraction	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Ground Water Abatement pursuant to 19.15.30 NMAC	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Other (Non-listed remedial process)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Which OCD approved facility was or will be used for off-site disposal?	Lea Land, Inc.	
NMOCD Disposal Facility ID?	fEEM0112342028	
Summarize any additional remediation activities not included by answers above.	See below	

On May 9, 2024, Etech commenced remediation activities at the Thundercloud Battery release site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standards was excavated 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 NMOCD Closure Criteria and/or NMOCD Reclamation Standards. 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. A summary of soil sampling events is provided below:

Constituent	Highest Observable Concentration	Sample ID	Sample Date	Sample Depth (ft bgs)	Soil Status
Chloride	544	FL 32 @ 1.5'	5/13/2024	1.5	In-Situ
TPH	<30.0	All submitted samples	5/13 - 5/15/2024	0 - 7	In-Situ
GRO+DRO	<20.0	All submitted samples	5/13 - 5/15/2024	0 - 7	In-Situ
BTEX	<0.300	All submitted samples	5/13 - 5/15/2024	0 - 7	In-Situ
Benzene	<0.050	All submitted samples	5/13 - 5/15/2024	0 - 7	In-Situ

Please reference Table 1 for additional information.

On May 13, 2024, Etech collected 37 confirmation soil samples (FL 1 @ 1' through FL 32 @ 1.5', FL 36 @ 1.5', EW 1, EW 2, WW 1, and WW 2) from the floor and sidewalls of the excavated area. The soil samples were submitted to a certified, commercial laboratory (henceforth, "the laboratory") for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples.

On May 14, 2024, Etech collected 16 confirmation soil samples (FL 33 @ 2', FL 34 @ 2', FL 35 @ 2', FL 37 @ 1.5' through FL 44 @ 1.5', NW 2, EW 3, SW 1, WW 3, and WW 4) from the floor and sidewalls of the excavated area. The soil samples 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 NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples.

On May 15, 2024, Etech collected nine (9) confirmation soil samples (FL 45 @ 1.5' through FL 50 @ 7', NW 1, EW 4, and WW 5) from the floor and sidewalls of the excavated area. The soil samples 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 NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples.

The final dimensions of the excavated area were approximately 206 to 388 feet in length, five (5) to 35 feet in width, and one (1) to seven (7) feet in depth. During the course of remediation activities, Etech transported approximately 720 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 720 cubic yards of locally sourced, non-impacted material to the site for use as backfill.

Soil sample locations and the extent of the excavated area are depicted in Figure 3, "Sample Location Map". Soil chemistry data is summarized in Table 1. General photographs of the site are provided in Appendix B. Field data is provided in Appendix C. Laboratory analytical reports are provided in Appendix D. Copies of all regulatory correspondence are provided in Appendix E.

### 5.0 SOIL CLOSURE REQUEST

Requesting a deferral of remediation closure due date with the approval of this submission?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Requesting a remediation closure approval with this submission?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Have the lateral and vertical extents of contamination been fully delineated?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Was this release entirely contained within a lined containment area?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the site's existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
What was the total surface area (sq. ft.) remediated?	12,056	
What was the total volume (cy) remediated?	720	

Remediation activities were conducted in accordance with NMOCD regulatory guidelines. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standards was excavated and transported to an NMOCD-permitted disposal facility. Laboratory analytical results from confirmation soil samples indicate in-situ concentrations of BTEX, TPH, and chloride are below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards.

Based on laboratory analytical results and field activities conducted to date, Etech recommends Mewbourne Oil Company, provide copies of this *Remediation Summary & Soil Closure Request* to the appropriate agencies and request remediation closure approval be granted to the Thundercloud Battery release site.

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

All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste containing earthen material with concentrations of less than 600 mg/kg chloride, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg benzene?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Requesting a reclamation approval with this submission?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Requesting a restoration complete approval with this submission?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
What was the total surface area (in square feet) reclaimed?	0	
What was the total volume (in cubic yards) reclaimed?	0	

On May 14, 2024, in accordance with the NMOCD, a 5-point composite soil sample (Backfill) was collected from the imported material stockpiled on-site to be utilized as backfill. The soil sample was submitted to the laboratory for analysis of BTEX, TPH, and chloride concentrations. Laboratory analytical results indicated that the BTEX, TPH, and chloride concentrations in the soil sample were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards and confirmed that the material was acceptable for use as backfill.

Upon receiving laboratory analytical results from confirmation soil samples, from May 22 through May 28, 2024, the excavated area was backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected areas were contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable.

The release was limited to the production pad of an active tank battery and did not impact the adjacent pasture. Final reclamation will be conducted upon decommissioning and abandonment of the facility. The reclaimed area will be revegetated with a certified weed-free BLM #2 seed mix (or other agency and/or landowner-approved seed mix) during the first favorable growing season following closure of the facility. The seed will be 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 *Remediation Summary & Soil Closure 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**

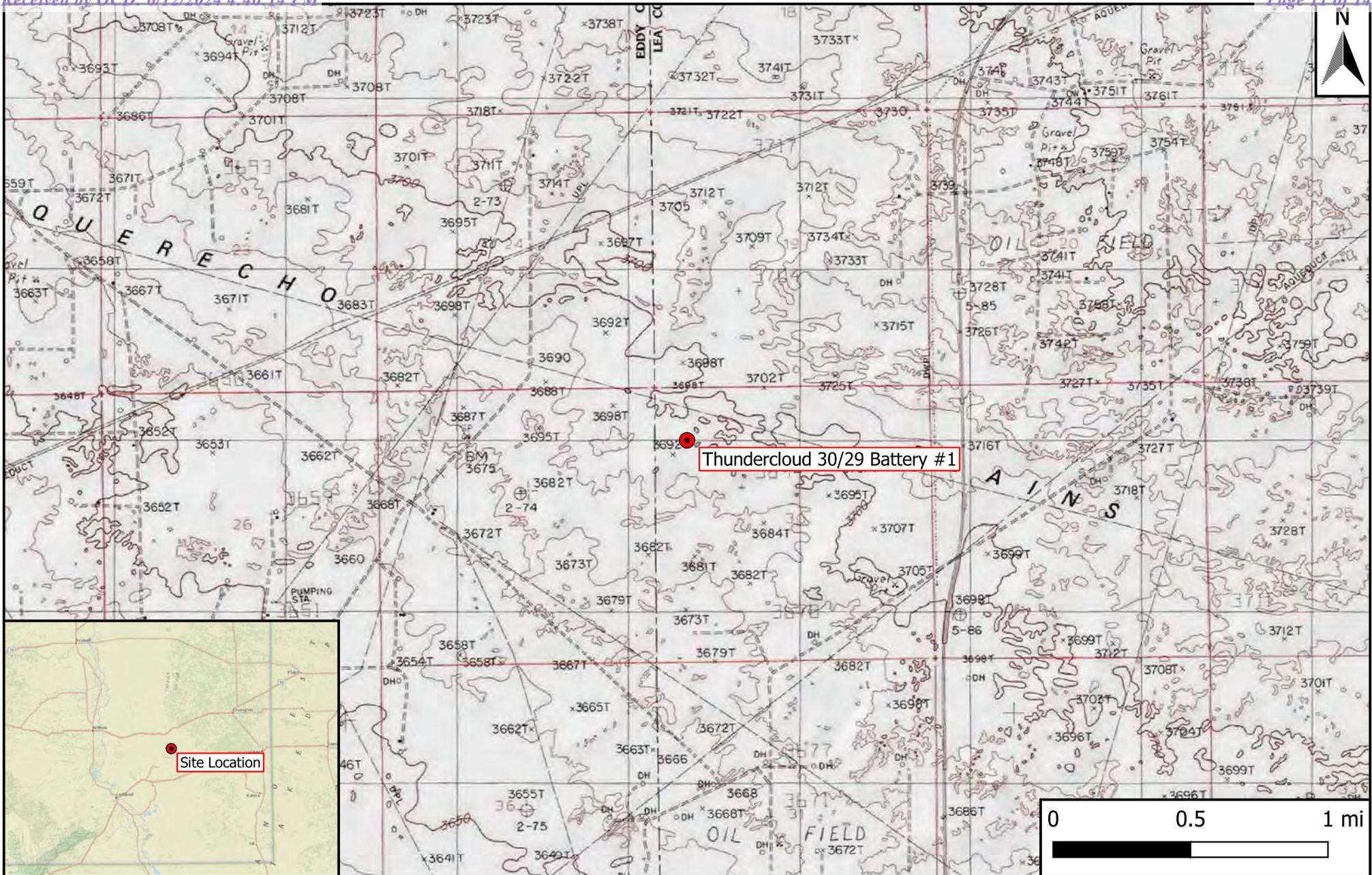
***Mewbourne Oil Company***  
4801 Business Park Blvd.  
Hobbs, NM 88240

***New Mexico Energy, Minerals and Natural Resources Department***  
Oil Conservation Division, District 1  
1220 South St. Francis Drive  
Santa Fe, NM 87505

***United States Department of the Interior***  
Bureau of Land Management  
620 E. Greene Street  
Carlsbad, NM 88220

*(Electronic Submission)*

# Figure 1 Site Location Map

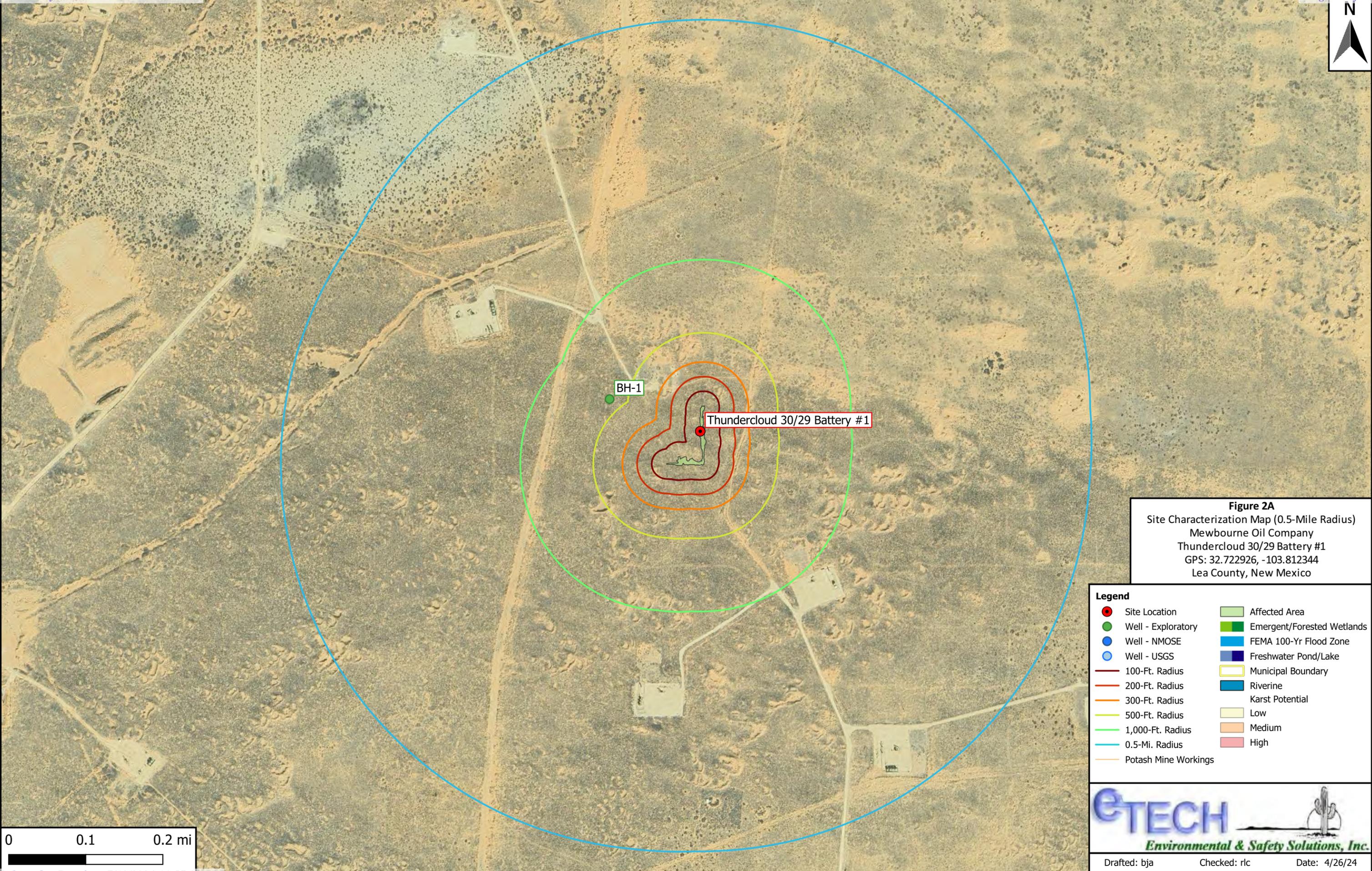


Legend  
 ● Site Location

**Figure 1**  
 Site Location Map  
 Mewbourne Oil Company  
 Thundercloud 30/29 Battery #1  
 GPS: 32.722926, -103.812344  
 Lea County, New Mexico



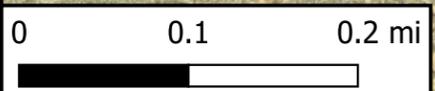
## **Figures 2A & 2B Site Characterization Maps**



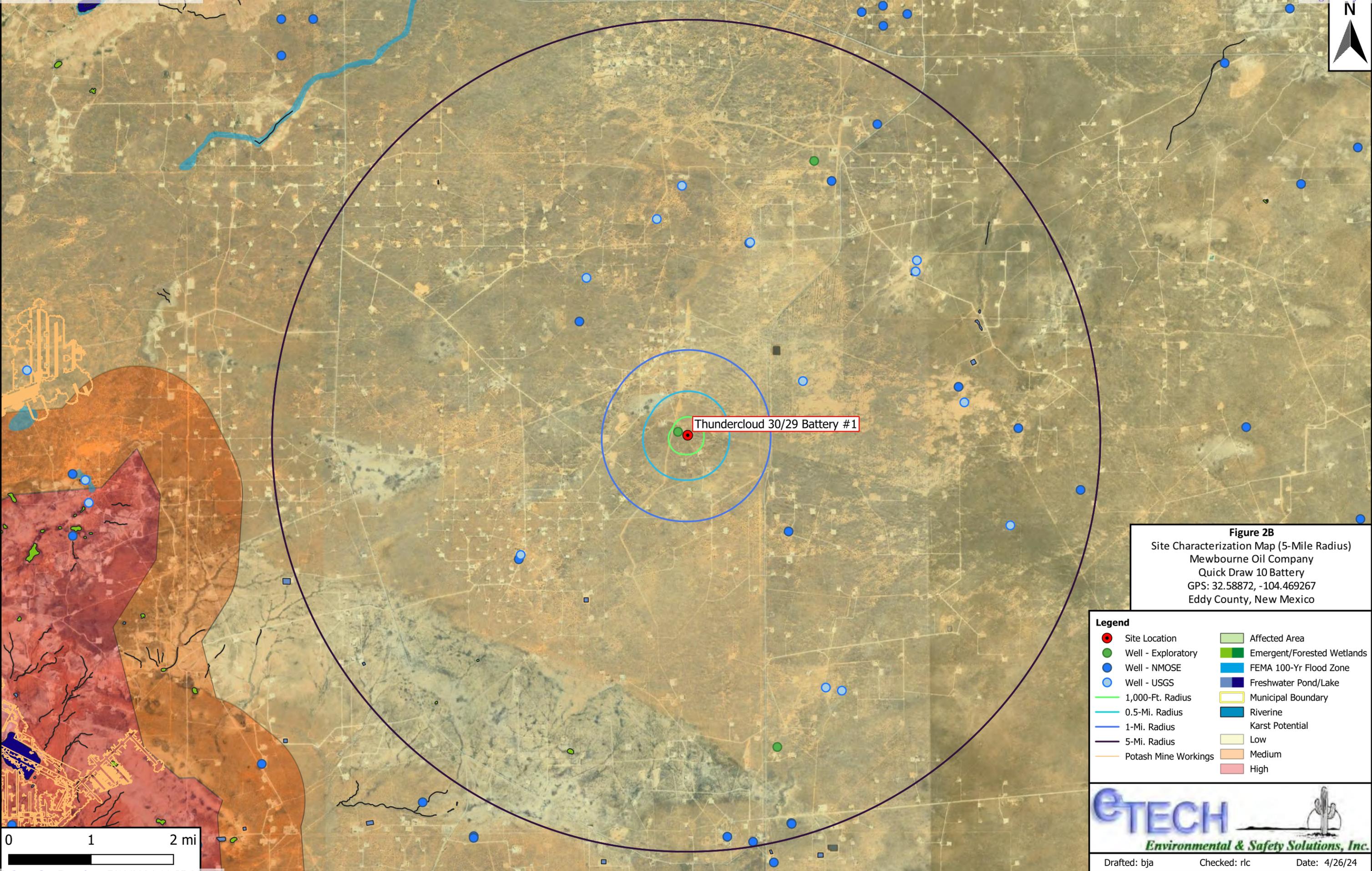
**Figure 2A**  
 Site Characterization Map (0.5-Mile Radius)  
 Mewbourne Oil Company  
 Thundercloud 30/29 Battery #1  
 GPS: 32.722926, -103.812344  
 Lea County, New Mexico

**Legend**

Site Location	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
300-Ft. Radius	Karst Potential
500-Ft. Radius	Low
1,000-Ft. Radius	Medium
0.5-Mi. Radius	High
Potash Mine Workings	



Drafted: bja      Checked: rlc      Date: 4/26/24



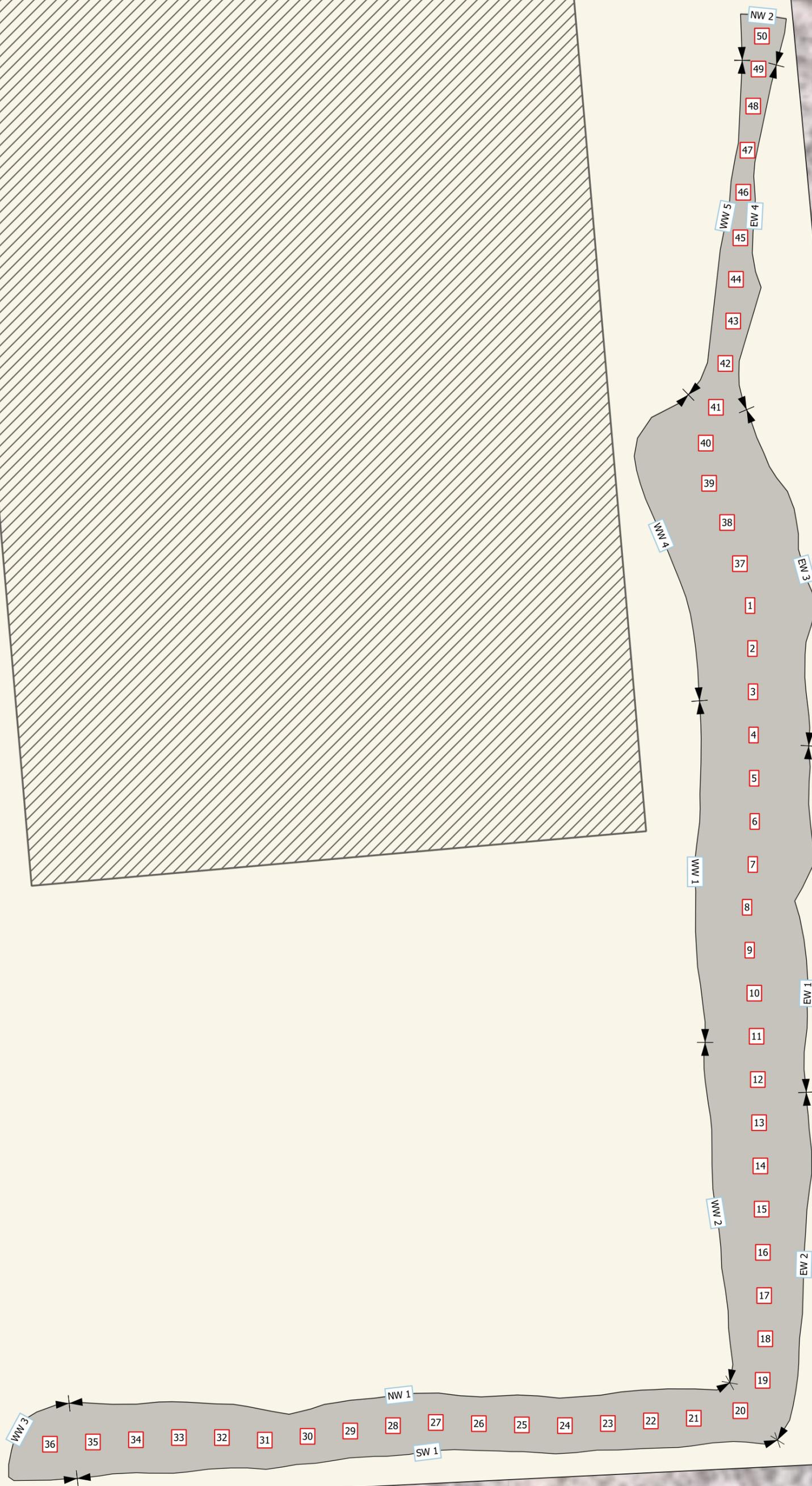
**Figure 2B**  
 Site Characterization Map (5-Mile Radius)  
 Mewbourne Oil Company  
 Quick Draw 10 Battery  
 GPS: 32.58872, -104.469267  
 Eddy County, New Mexico

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



Drafted: bja      Checked: rlc      Date: 4/26/24

## Figure 3 Sample Location Map



Legend	
	Caliche Pad
	Composite Floor Sample
	Excavation Extent
	Composite Wall Sample
	Tank Battery Containment

**Figure 3**  
 Sample Location Map  
 Mewbourne Oil Company  
 Thundercloud 30/29 Battery #1  
 GPS: 32.722926, -103.812344  
 Lea County, New Mexico

Drafted: bja
Checked: rlc
Date: 6/12/24

**Table 1**  
**Concentrations of BTEX, TPH & Chloride in Soil**

**Table 1**  
**Concentrations of BTEX, TPH & Chloride in Soil**  
**Mewbourne Oil Company**  
**Thundercloud 30/29 Battery #1**  
**NMOCD Ref. #: nAPP2408651560**

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)	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)
FL 1 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272
FL 2 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	464
FL 3 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272
FL 4 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	400
FL 5 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 6 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
FL 7 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
FL 8 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 9 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
FL 10 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
FL 11 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 12 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
FL 13 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
FL 14 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	400
FL 15 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
FL 16 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	176
FL 17 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 18 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256
FL 19 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL 20 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
FL 21 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240
FL 22 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
FL 23 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
FL 24 @ 1'	5/13/2024	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 25 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 26 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	368
FL 27 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 28 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	352
FL 29 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
FL 30 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 31 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240
FL 32 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	544
FL 33 @ 2'	5/14/2024	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
FL 34 @ 2'	5/14/2024	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
FL 35 @ 2'	5/14/2024	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
FL 36 @ 1.5'	5/13/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
FL 37 @ 1.5'	5/14/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 38 @ 1.5'	5/14/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 39 @ 1.5'	5/14/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
FL 40 @ 1.5'	5/14/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 41 @ 1.5'	5/14/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 42 @ 1.5'	5/14/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0

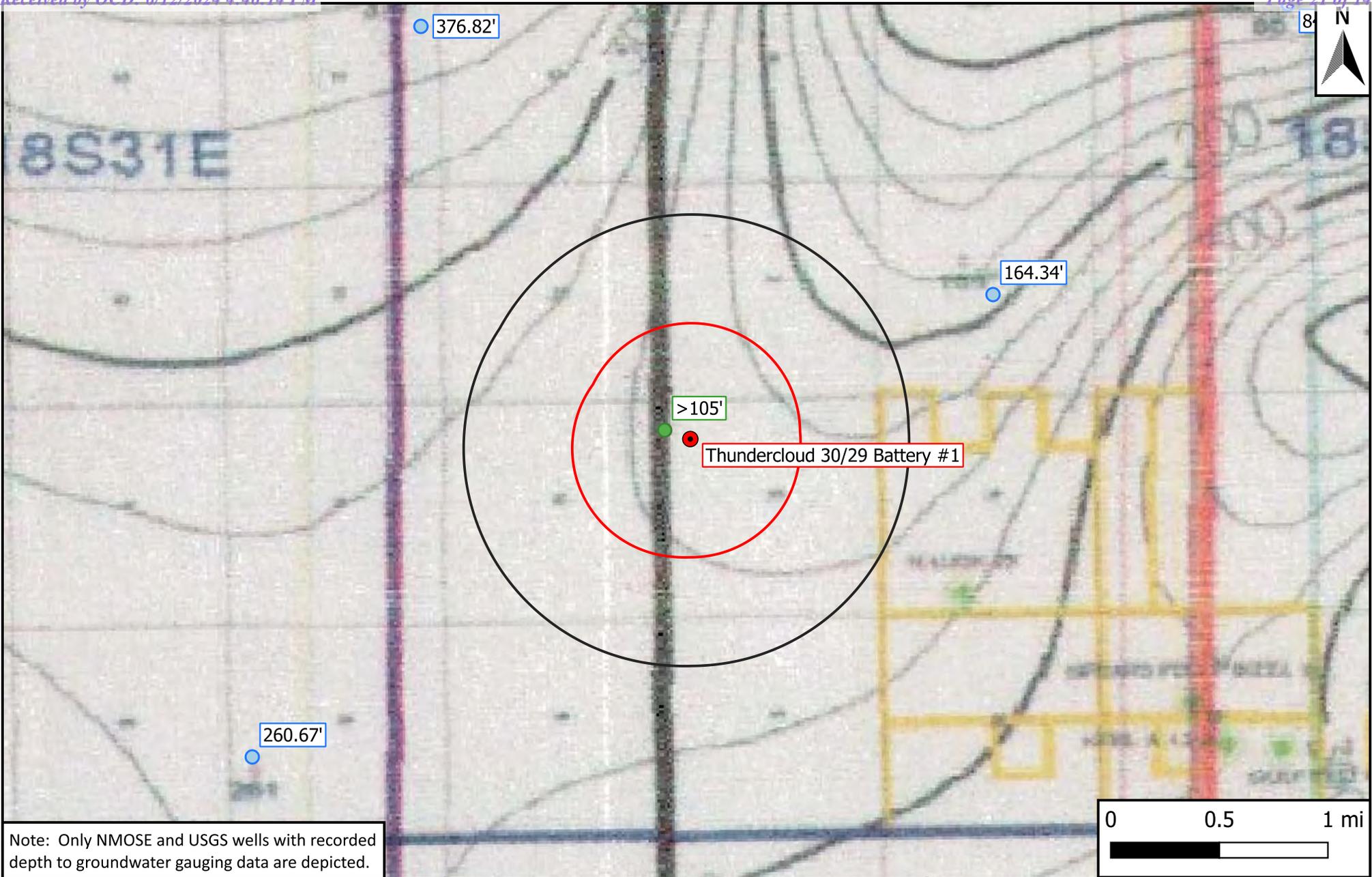
Dash (-): Sample not analyzed for that constituent.  
**Bold:** NMOCD Closure Criteria exceedance.  
**Red:** NMOCD Reclamation Standard exceedance.  
 Red Border with Shading: Highest observed concentration.

<b>Table 1</b> <b>Concentrations of BTEX, TPH &amp; Chloride in Soil</b> <b>Mewbourne Oil Company</b> <b>Thundercloud 30/29 Battery #1</b> <b>NMOCD Ref. #: nAPP2408651560</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)	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)
FL 43 @ 1.5'	5/14/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
FL 44 @ 1.5'	5/14/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
FL 45 @ 1.5'	5/15/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256
FL 46 @ 1.5'	5/15/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
FL 47 @ 1.5'	5/15/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 48 @ 1.5'	5/15/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 49 @ 1.5'	5/15/2024	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272
FL 50 @ 7'	5/15/2024	7	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256
NW 1	5/15/2024	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
NW 2	5/14/2024	0-7	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EW 1	5/13/2024	0-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EW 2	5/13/2024	0-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
EW 3	5/14/2024	0-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
EW 4	5/15/2024	0-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SW 1	5/14/2024	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WW 1	5/13/2024	0-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
WW 2	5/13/2024	0-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
WW 3	5/14/2024	0-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WW 4	5/14/2024	0-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
WW 5	5/15/2024	0-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	304
Backfill	5/14/2024	N/A	Backfill	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0

Dash (-): Sample not analyzed for that constituent.  
**Bold:** NMOCD Closure Criteria exceedance.  
**Red:** NMOCD Reclamation Standard exceedance.  
 Red Border with Shading: Highest observed concentration.

## **Appendix A**

### **Depth to Groundwater Information**



Note: Only NMOSE and USGS wells with recorded depth to groundwater gauging data are depicted.

Legend

- Site Location
- Well - Exploratory
- Well - NMOSE
- Well - USGS
- 0.5-Mile Radius

**Figure 4**  
 Inferred Depth to Groundwater Map  
 Mewbourne Oil Company  
 Thundercloud 30/29 Battery #1  
 GPS: 32.722926, -103.812344  
 Lea County, New Mexico



Drafted: bja

Checked: rlc

Date: 4/26/24

**Soil Boring/Temporary Monitor Well BH-1**

<b>Company:</b> Mewbourne Oil Company	<b>Well/Borehole ID:</b> BH-1	<b>Drilling Company:</b> H&R Enterprises, LLC
<b>Site:</b> Thundercloud 30/29 Battery #1	<b>Coordinates (NAD 83):</b> 32.723539,-103.814360	<b>Driller:</b> Jim Hawley
<b>NMOCD Reference #:</b> nAPP2408651560	<b>Drilling Date:</b> 3/25/2024	<b>Drilling Method:</b> Air Rotary
<b>Location:</b> Lea Co., NM	<b>Depth of Boring (ft):</b> 105	<b>Logged By:</b> Jim Hawley
<b>PLSS:</b> UL/ "D" Sec. 30, T18S, R32E	<b>Depth to Groundwater (ft):</b> >105	<b>Drafted By:</b> Ben J. Arguijo
	<b>Plugging Date:</b> 4/4/2024	<b>Draft Date:</b> 4/26/2024

<b>Completion:</b> N/A	<b>Casing:</b> 2" PVC	<b>Screen:</b> 0.020" Slotted
------------------------	-----------------------	-------------------------------

**Comments:** N/A

Depth (ft)	Groundwater	Lithology	Material Description	Petroleum Odor	Petroleum Stain	PID Reading	Well Construction
0			Caliche 100%	N	N	-	
5			Sand 30% - Caliche 70%	N	N	-	
10			Sand 100%	N	N	-	
15			Sand 100%	N	N	-	
20			Sand 100%	N	N	-	
25			Caliche 100%	N	N	-	
30			Clay 90% - Sand 10%	N	N	-	
35			Clay 90% - Sand 10%	N	N	-	
40			Clay 90% - Sand 10%	N	N	-	
45			Clay 90% - Sand 10%	N	N	-	
50			Clay 90% - Sand 10%	N	N	-	Open Hole, No Annular Fill
55			Clay 90% - Sand 10%	N	N	-	
60			Clay 90% - Sand 10%	N	N	-	
65			Clay 90% - Sand 10%	N	N	-	
70			Clay 90% - Sand 10%	N	N	-	
75			Clay 90% - Sand 10%	N	N	-	
80			Clay 90% - Sand 10%	N	N	-	
85			Gravel 60% - Sand 40%	N	N	-	
90			Gravel 60% - Sand 40%	N	N	-	
95			Gravel 60% - Sand 40%	N	N	-	
100			Gravel 60% - Sand 40%	N	N	-	
105			Gravel 60% - Sand 40%	N	N	-	
110			Notes: • Lines between material types represent approximate boundaries. Actual transitions may be gradual. • The exploratory soil boring was left open for over 72 hours. No indications of inflow and/or accumulation of water were noted during the advancement of the soil boring or prior to plugging and abandonment.				
115							

**Disclaimer** This bore log is intended for environmental not geotechnical purposes.



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">CP 01938 POD1</a>		CP	LE	1	4	1	32	18S	32E	613277	3619332	2719	51		

Average Depth to Water: --  
Minimum Depth: --  
Maximum Depth: --

**Record Count:** 1

**UTM NAD83 Radius Search (in meters):**

**Easting (X):** 611294.68

**Northing (Y):** 3621194.77

**Radius:** 3220

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.

WATER COLUMN/ AVERAGE DEPTH TO WATER



# New Mexico Office of the State Engineer

## Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are smallest to largest)		(NAD83 UTM in meters)	
NA	CP 01938 POD1	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
		1	4	1	32	18S	32E	613277	3619332

<b>Driller License:</b> 1755	<b>Driller Company:</b> HUNGRY HORSE, LLC.	
<b>Driller Name:</b> JOHN NORRIS		
<b>Drill Start Date:</b> 01/18/2023	<b>Drill Finish Date:</b> 01/18/2023	<b>Plug Date:</b> 01/25/2023
<b>Log File Date:</b> 02/06/2023	<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> 51 feet	<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.

POINT OF DIVERSION SUMMARY



# WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

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

<b>1. GENERAL AND WELL LOCATION</b>	OSE POD NO. (WELL NO.) <b>POD 1</b>		WELL TAG ID NO.		OSE FILE NO(S). <b>CP 01938</b>			
	WELL OWNER NAME(S) <b>Raybow Operating, LLC</b>				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS <b>2626 Cole Avenue Suite 300</b>				CITY <b>Dallas</b>	STATE <b>TX</b>	ZIP <b>75204</b>	
	WELL LOCATION (FROM GPS)	DEGREES <b>32</b>	MINUTES <b>42</b>	SECONDS <b>21.34</b>	<b>N</b>	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
		LONGITUDE <b>103</b>	<b>47</b>	<b>29.13</b>	<b>W</b>	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE <b>Unit Letter "F", Section 32, T18S, R32E</b>								
<b>2. DRILLING &amp; CASING INFORMATION</b>	LICENSE NO. <b>1755</b>		NAME OF LICENSED DRILLER <b>John Norris</b>			NAME OF WELL DRILLING COMPANY <b>Hungry Horse, LLC</b>		
	DRILLING STARTED <b>1/18/23</b>	DRILLING ENDED <b>1/18/23</b>	DEPTH OF COMPLETED WELL (FT) <b>NA</b>	BORE HOLE DEPTH (FT) <b>51</b>	DEPTH WATER FIRST ENCOUNTERED (FT) <b>NA</b>			
	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) <b>NA</b>	DATE STATIC MEASURED <b>NA</b>		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES – SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER – SPECIFY:					CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>		
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
				<b>No Casing</b>				
<b>3. ANNULAR MATERIAL</b>	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						
	<b>0</b>	<b>10</b>	<b>6</b>	<b>benonite chips</b>	<b>1.96</b>	<b>tremie</b>		
	<b>10</b>	<b>51</b>	<b>6</b>	<b>native soil</b>	<b>8.05</b>	<b>shovel</b>		

OSE DIT FEB 6 2023 4M 21:54

FOR OSE INTERNAL USE			WR-20 WELL RECORD & LOG (Version 09/22/2022)		
FILE NO. <b>CP-1938</b>	POD NO. <b>1</b>	TRN NO. <b>740 275</b>			
LOCATION <b>32. 18S. 32E 141</b>	WELL TAG ID NO. <b>N17</b>	PAGE 1 OF 2			





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### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 324502103495801

Minimum number of levels = 1

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

### USGS 324502103495801 18S.31E.14.22133

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°45'02", Longitude 103°49'58" NAD27

Land-surface elevation 3,736 feet above NAVD88

The depth of the well is 400 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Chinle Formation (231CHNL) local aquifer.

#### Output formats

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0.56 0.48 nadww02



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Agency code = usgs

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- 324356103471601

Minimum number of levels = 1

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### USGS 324356103471601 18S.32E.20.14411

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°43'56", Longitude 103°47'16" NAD27

Land-surface elevation 3,746 feet above NAVD88

The depth of the well is 270 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Chinle Formation (231CHNL) local aquifer.

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**Agency code = usgs**

**site\_no list =**

- 324159103503801

**Minimum number of levels = 1**

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### USGS 324159103503801 18S.31E.35.31324

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°42'07.3", Longitude 103°50'50.1" NAD83

Land-surface elevation 3,630 feet above NAVD88

The depth of the well is 300 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Chinle Formation (231CHNL) local aquifer.

#### Output formats

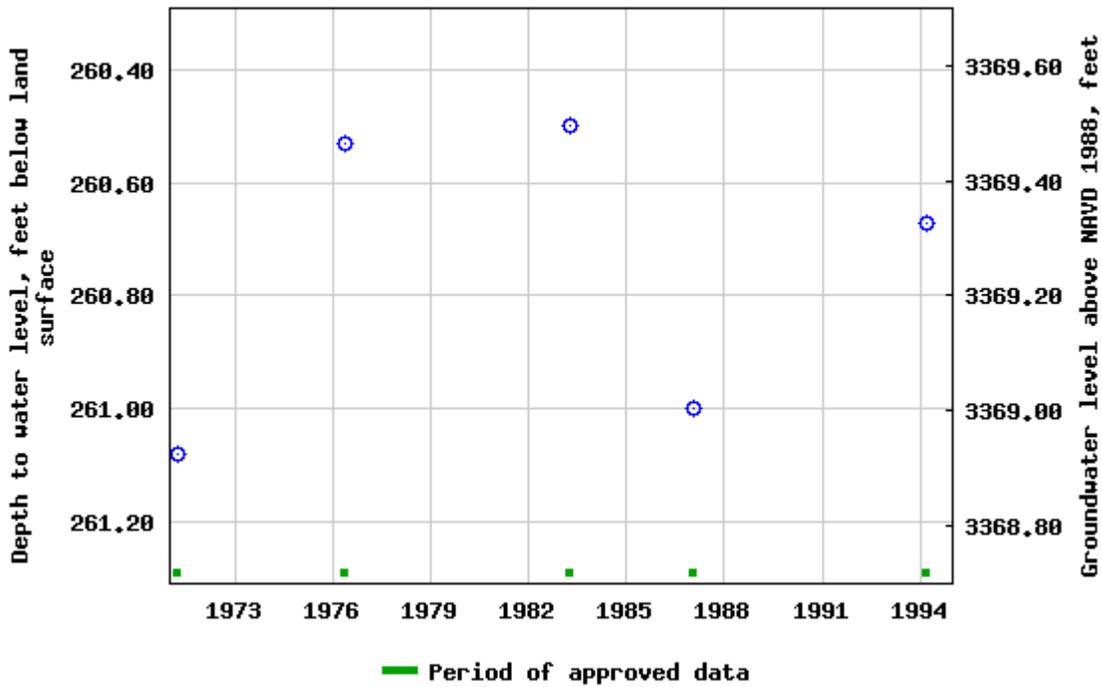
[Table of data](#)

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USGS 324159103503801 18S,31E,35,31324



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0.62 0.49 nadww01

## **Appendix B**

### **Field Data**



# Sample Log

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

Project: Thundercloud Battery

Project Number: 20138 Latitude: 32.7231 Longitude: -103.81222

Sample ID	PID/Odor	Chloride Conc.	GPS
East Wall test		1500	
West Wall test		1372	
East wall test		1408	
EW 1		196	
WW1		196	
FL-1 @ 1'		368	
FL-2 @ 1'		552	
FL-3 @ 1 1/2'		368	
FL-4 @		368	
FL-5 @ 1 1/2'		332	
FL-6 @ 1'		144	
FL-7 @ 1'		144	
FL-8 @ 1'		ND	
FL-9 @ 1'		ND	
FL-10 @ 1'		172	
FL-11 @ 1'		ND	
FL-12 @ 1'		228	
FL-13 @ 1'		412	
FL-14 @ 1'		500	
EW 2		ND	
2- WW2		144	
FL-15 @ 1'		196	
FL-16 @ 1'		412	
FL-17 @ 1'		ND	
FL-18 @ 1'		412	
FL-19 @ 1'		412	
SW 1		368	
FL-20 @ 1 1/2'		292	
FL-21 @ 1 1/2'		292	
FL-22 @ 1 1/2'		260	
NW 1		ND	
FL-23 @ 1'		100	
FL-23 @ 1 1/2'		368	
FL-24 @ 1'		ND	
FL-25 @ 1 1/2'		260	
FL-26 @ 1 1/2'		500	

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



# Sample Log

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

Project: \_\_\_\_\_

Project Number: \_\_\_\_\_ Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Sample ID	PID/Odor	Chloride Conc.	GPS
FL-27 @ 1 1/2'		196	
FL-28 @ 1 1/2'		368	
FL-29 @ 1 1/2'		500	
FL-30 @ 1 1/2'		140	
FL-31 @ 1 1/2'		368	
FL-32 @ 1 1/2'		328	
FL-33 @ 1 1/2'		1468	
FL-34 @ 1 1/2'		1468	
FL-35 @ 1 1/2'		1372	
FL-36 @ 1 1/2'		328	
FL-37 @ 1 1/2'		260	
FL-38 @ 1 1/2'		224	
FL-39 @ 1 1/2'		ND	
FL-40 @ 1 1/2'		224	
FL-41 @ 1 1/2'		224	
NW2		168	
SW2		196	
EW3		500	
WW3		ND	
FL-42 @ 1 1/2'		224	
FL-43 @ 1 1/2'		ND	
FL-44 @ 1 1/2'		168	
FL-33 @ 2'		328	
FL-34 @ 2'		196	
FL-35 @ 2'		368	
WW4		196	
Floor test		1800	
EW4		ND	
NW3		452	
WW5		500	
FL-45 @ 1 1/2'		406	
FL-46 @ 1 1/2'		146	
FL-47 @ 1 1/2'		ND	
FL-48 @ 1 1/2'		140	
FL-49 @ 1 1/2'		406	
FL-50 @ 7'		406	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

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

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

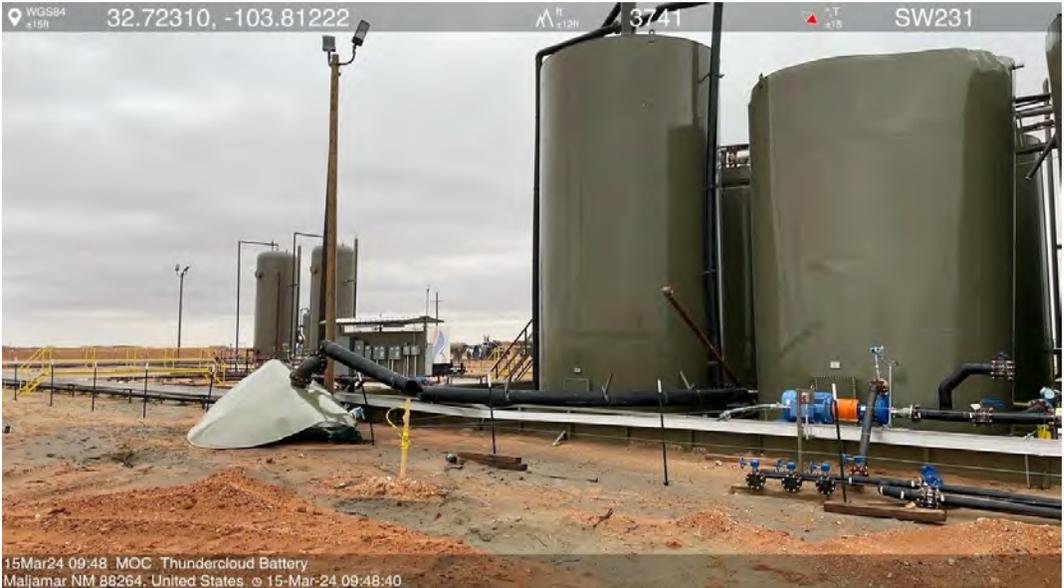
Stockpile = Stockpile #1

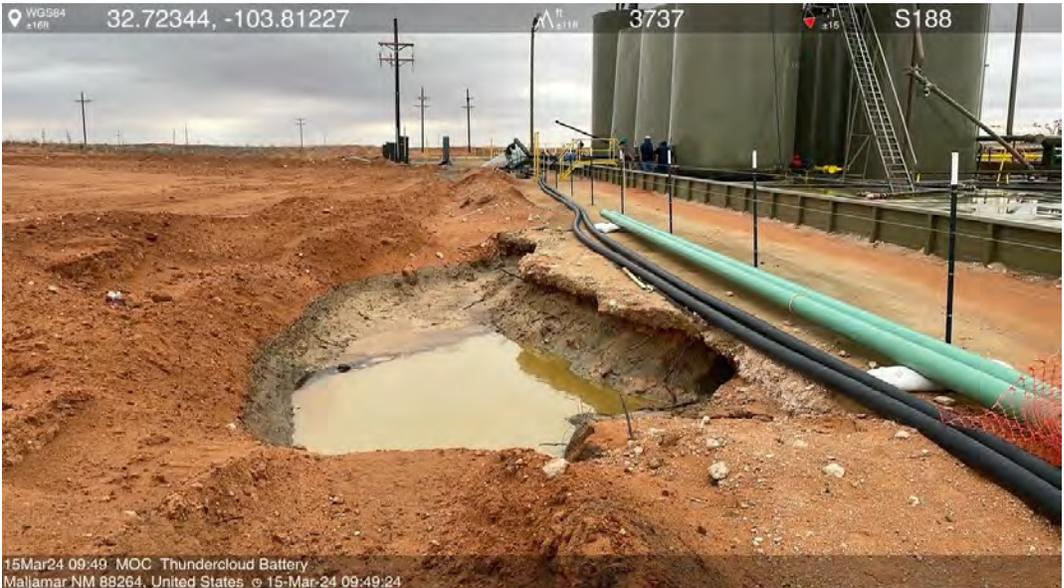
GPS Sample Points, Center of Comp Areas

# **Appendix C**

## **Photographic Log**

### Photographic Log

<b>Photo Number:</b> 1	 <p>WGS84 32.72310, -103.81222 3741 SW231</p> <p>15Mar24 09:48 MOC Thundercloud Battery Maljamar NM 88264, United States © 15-Mar-24 09:48:40</p>
<b>Photo Direction:</b> Southwest	
<b>Photo Description:</b>  View of the affected area.	

<b>Photo Number:</b> 2	 <p>WGS84 32.72344, -103.81227 3737 S188</p> <p>15Mar24 09:49 MOC Thundercloud Battery Maljamar NM 88264, United States © 15-Mar-24 09:49:24</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the affected area.	

### Photographic Log

<b>Photo Number:</b> 3	 <p>WGS84 32.72301, -103.81229 3706 S169</p> <p>15Mar24 10:04 MOC Thundercloud Battery Maljamar NM 88264, United States © 15-Mar-24 10:04:22</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the affected area.	

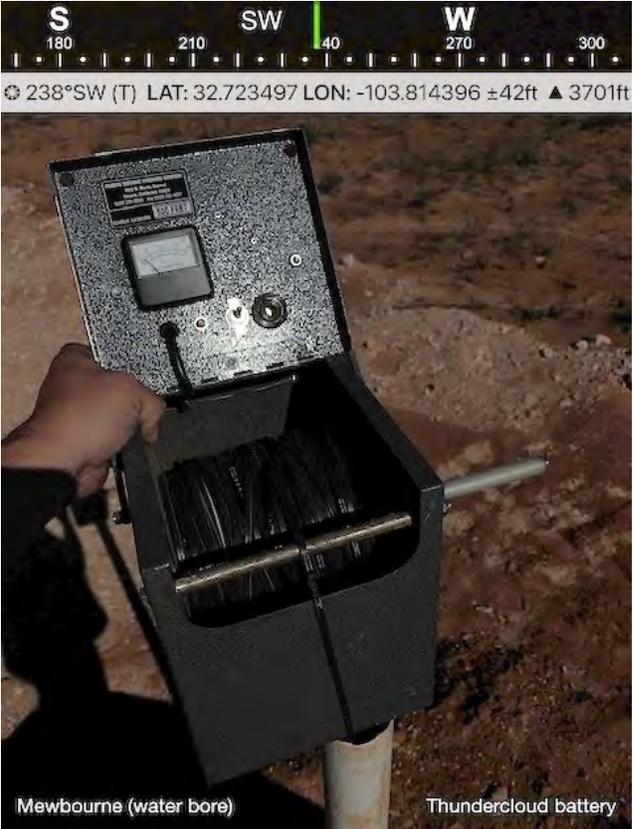
<b>Photo Number:</b> 4	 <p>WGS84 32.72227, -103.81228 3704 N354</p> <p>15Mar24 10:05 MOC Thundercloud Battery Maljamar NM 88264, United States © 15-Mar-24 10:05:59</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the affected area.	

### Photographic Log

<b>Photo Number:</b> 5	 <p>15Mar24 10:07 MOC Thundercloud Battery Maljamar NM 88264, United States © 15-Mar-24 10:07:12</p>
<b>Photo Direction:</b> East	
<b>Photo Description:</b>  View of the affected area.	

<b>Photo Number:</b> 6	 <p>15Mar24 10:06 MOC Thundercloud Battery Maljamar NM 88264, United States © 15-Mar-24 10:06:25</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the affected area.	

### Photographic Log

<b>Photo Number:</b> 7	 <p>Mewbourne (water bore) Thundercloud battery</p>
<b>Photo Direction:</b> West-Southwest	
<b>Date Taken:</b> 4/4/2024	
<b>Photo Description:</b>  View of exploratory soil boring BH-1.	

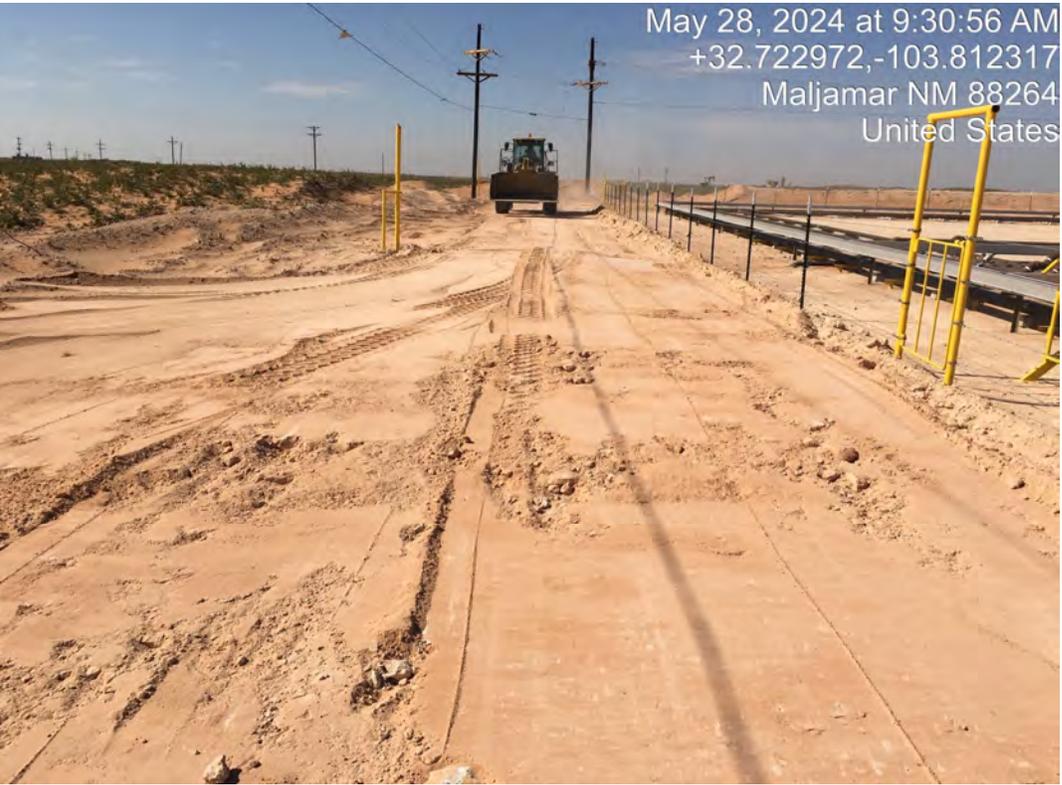
<b>Photo Number:</b> 8	 <p>May 28, 2024 at 9:28:50 AM +32.723494,-103.812378 Maljamar NM 88264 United States</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the excavated area prior to backfilling.	

### Photographic Log

<b>Photo Number:</b> 9	 <p>May 28, 2024 at 9:30:24 AM +32.723036,-103.812228 Maljamar NM 88264 United States</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the excavated area prior to backfilling.	

<b>Photo Number:</b> 10	 <p>May 28, 2024 at 7:40:04 AM Maljamar NM 88264 United States</p>
<b>Photo Direction:</b> South	
<b>Coordinates:</b> 32.723360,-103.812261	
<b>Photo Description:</b>  View of the excavated area with top layers of native soil and caliche well pad visible.	

### Photographic Log

<b>Photo Number:</b> 11	 <p>May 28, 2024 at 9:30:56 AM +32.722972,-103.812317 Maljamar NM 88264 United States</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the excavated area during backfilling.	

<b>Photo Number:</b> 12	 <p>May 28, 2024 at 9:35:50 AM +32.722990,-103.812186 Maljamar NM 88264 United States</p>
<b>Photo Direction:</b> East	
<b>Photo Description:</b>  View of the excavated area during backfilling.	

### Photographic Log

<b>Photo Number:</b> 13	 <p>May 28, 2024 at 9:42:00 AM +32.722310,-103.813172 Maljamar NM 88264 United States</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the remediated area following backfilling and regrading.	

<b>Photo Number:</b> 14	 <p>May 28, 2024 at 9:43:19 AM +32.722366,-103.812272 Maljamar NM 88264 United States</p>
<b>Photo Direction:</b> North-Northwest	
<b>Photo Description:</b>  View of the remediated area following backfilling and regrading.	

### Photographic Log

<b>Photo Number:</b> 15	 <p>May 28, 2024 at 1:32:46 PM +32.722973,-103.812276 Maljamar NM 88264 United States</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the remediated area following backfilling and regrading.	

<b>Photo Number:</b> 16	 <p>May 28, 2024 at 1:34:13 PM +32.723315,-103.812157 Maljamar NM 88264 United States</p>
<b>Photo Direction:</b> South-Southwest	
<b>Photo Description:</b>  View of the remediated area following backfilling and regrading.	

# **Appendix D**

## **Laboratory Analytical Reports**



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

---

May 16, 2024

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: THUNDERCLOUD BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/13/24 15:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 1 @ 1' (H242601-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	05/15/2024	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	05/14/2024	ND	195	97.6	200	2.69	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	181	90.7	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 91.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.3 % 49.1-148

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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 2 @ 1' (H242601-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	05/15/2024	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	05/14/2024	ND	195	97.6	200	2.69	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	181	90.7	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 49.1-148

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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 3 @ 1.5' (H242601-03)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	272	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	195	97.6	200	2.69	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	181	90.7	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 99.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.9 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 4 @ 1' (H242601-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	400	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	195	97.6	200	2.69	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	181	90.7	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 92.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.2 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 5 @ 1.5' (H242601-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	16.0	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/15/2024	ND	195	97.6	200	2.69	
DRO >C10-C28*	<10.0	10.0	05/15/2024	ND	181	90.7	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	05/15/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.1 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 6 @ 1' (H242601-06)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	32.0	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/15/2024	ND	195	97.6	200	2.69	
DRO >C10-C28*	<10.0	10.0	05/15/2024	ND	181	90.7	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	05/15/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.9 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 7 @ 1' (H242601-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	96.0	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 8 @ 1' (H242601-08)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	16.0	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 9 @ 1' (H242601-09)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	32.0	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 10 @ 1' (H242601-10)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	32.0	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 11 @ 1' (H242601-11)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	16.0	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 12 @ 1' (H242601-12)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 97.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 13 @ 1' (H242601-13)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.01	100	2.00	2.52	
Toluene*	<0.050	0.050	05/15/2024	ND	2.09	105	2.00	3.35	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	1.48	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.50	108	6.00	1.78	
Total BTEX	<0.300	0.300	05/15/2024	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	208	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 14 @ 1' (H242601-14)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	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
Chloride	400	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 15 @ 1' (H242601-15)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	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
Chloride	96.0	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 16 @ 1' (H242601-16)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	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
Chloride	176	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 17 @ 1' (H242601-17)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 18 @ 1' (H242601-18)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 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
Chloride	256	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 19 @ 1' (H242601-19)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	144	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 20 @ 1.5' (H242601-20)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	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
Chloride	32.0	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 21 @ 1.5' (H242601-21)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	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	240	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 22 @ 1.5' (H242601-22)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	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	160	16.0	05/15/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 23 @ 1.5' (H242601-23)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/15/2024	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	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 24 @ 1' (H242601-24)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/15/2024	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	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 25 @ 1.5' (H242601-25)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/15/2024	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	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 98.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 26 @ 1.5' (H242601-26)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	05/15/2024	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	05/14/2024	ND	193	96.3	200	1.16	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	191	95.5	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 27 @ 1.5' (H242601-27)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.8 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 28 @ 1.5' (H242601-28)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.5 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 29 @ 1.5' (H242601-29)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 99.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.2 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 30 @ 1.5' (H242601-30)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.8 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 31 @ 1.5' (H242601-31)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 96.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.6 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 32 @ 1.5' (H242601-32)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.6 % 49.1-148

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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: FL 36 @ 1.5' (H242601-33)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	2.12	106	2.00	0.861	
Toluene*	<0.050	0.050	05/15/2024	ND	2.16	108	2.00	0.437	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	2.15	108	2.00	1.08	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	6.87	114	6.00	3.14	
Total BTEX	<0.300	0.300	05/15/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 96.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.6 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: WW 1 (H242601-34)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	1.95	97.3	2.00	10.2	
Toluene*	<0.050	0.050	05/15/2024	ND	1.90	95.1	2.00	9.52	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	1.88	94.1	2.00	8.07	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	5.49	91.4	6.00	8.16	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 80.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.9 % 49.1-148

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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: WW 2 (H242601-35)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	1.95	97.3	2.00	10.2	
Toluene*	<0.050	0.050	05/15/2024	ND	1.90	95.1	2.00	9.52	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	1.88	94.1	2.00	8.07	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	5.49	91.4	6.00	8.16	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 79.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.3 % 49.1-148

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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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: EW 1 (H242601-36)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	1.95	97.3	2.00	10.2	
Toluene*	<0.050	0.050	05/15/2024	ND	1.90	95.1	2.00	9.52	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	1.88	94.1	2.00	8.07	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	5.49	91.4	6.00	8.16	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 82.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.0 % 49.1-148

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:	05/13/2024	Sampling Date:	05/13/2024
Reported:	05/16/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: EW 2 (H242601-37)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/15/2024	ND	1.95	97.3	2.00	10.2	
Toluene*	<0.050	0.050	05/15/2024	ND	1.90	95.1	2.00	9.52	
Ethylbenzene*	<0.050	0.050	05/15/2024	ND	1.88	94.1	2.00	8.07	
Total Xylenes*	<0.150	0.150	05/15/2024	ND	5.49	91.4	6.00	8.16	
Total BTEX	<0.300	0.300	05/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 79.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/15/2024	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	05/14/2024	ND	191	95.4	200	0.393	
DRO >C10-C28*	<10.0	10.0	05/14/2024	ND	182	91.0	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	05/14/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.2 % 49.1-148

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

Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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







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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Company Name: Etech Environmental & Safety Solutions, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																		
Project Manager: Lance Crenshaw				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH (8015M)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX (8021B)</div> </div>																		
Address: 2617 West Marland				Company: Mewbourne																						
City: Hobbs State: NM Zip: 88240				Attn: Connor Walker																						
Phone #: (575) 264-9884 Fax #:				Address:																						
Project #: 20138 Project Owner: Mewbourne				City:																						
Project Name: Thundercloud Battery				State: NM Zip:																						
Project Location: 32.7231, -103.81222				Phone #:																						
Sampler Name: Aaron Rios				Fax #:																						
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											
	H242601																									
	21	FL 21 @ 1.5'	C	1			X				X			5/13/24		X	X	X								
	22	FL 22 @ 1.5'	C	1			X				X			5/13/24		X	X	X								
	23	FL 23 @ 1.5'	C	1			X				X			5/13/24		X	X	X								
	24	FL 24 @ 1'	C	1			X				X			5/13/24		X	X	X								
	25	FL 25 @ 1.5'	C	1			X				X			5/13/24		X	X	X								
	26	FL 26 @ 1.5'	C	1			X				X			5/13/24		X	X	X								
	27	FL 27 @ 1.5'	C	1			X				X			5/13/24		X	X	X								
	28	FL 28 @ 1.5'	C	1			X				X			5/13/24		X	X	X								
	29	FL 29 @ 1.5'	C	1			X				X			5/13/24		X	X	X								
	30	FL 30 @ 1.5'	C	1			X				X			5/13/24		X	X	X								

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Relinquished By:	Date: 5-13-24	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: 1510		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		Please email results and copy of CoC to pm@etechenv.com.	
Delivered By: (Circle One)	#140	Sample Condition	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:	5.9°C	Cool Intact		
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
		<input type="checkbox"/> Yes <input type="checkbox"/> No		





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

June 12, 2024

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: THUNDERCLOUD BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/14/24 15:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
---	--	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL 33 @ 2'	H242648-01	Soil	14-May-24 00:00	14-May-24 15:00
FL 34 @ 2'	H242648-02	Soil	14-May-24 00:00	14-May-24 15:00
FL 35 @ 2'	H242648-03	Soil	14-May-24 00:00	14-May-24 15:00
FL 37 @ 1.5'	H242648-04	Soil	14-May-24 00:00	14-May-24 15:00
FL 38 @ 1.5'	H242648-05	Soil	14-May-24 00:00	14-May-24 15:00
FL 39 @ 1.5'	H242648-06	Soil	14-May-24 00:00	14-May-24 15:00
FL 40 @ 1.5'	H242648-07	Soil	14-May-24 00:00	14-May-24 15:00
FL 41 @ 1.5'	H242648-08	Soil	14-May-24 00:00	14-May-24 15:00
FL 42 @ 1.5'	H242648-09	Soil	14-May-24 00:00	14-May-24 15:00
FL 43 @ 1.5'	H242648-10	Soil	14-May-24 00:00	14-May-24 15:00
FL 44 @ 1.5'	H242648-11	Soil	14-May-24 00:00	14-May-24 15:00
NW 2	H242648-12	Soil	14-May-24 00:00	14-May-24 15:00
EW 3	H242648-13	Soil	14-May-24 00:00	14-May-24 15:00
SW 1	H242648-14	Soil	14-May-24 00:00	14-May-24 15:00
WW 3	H242648-15	Soil	14-May-24 00:00	14-May-24 15:00
WW 4	H242648-16	Soil	14-May-24 00:00	14-May-24 15:00

06/12/24 - Client changed the sample ID on -14 (see COC). This is the revised report and will replace the one sent on 05/20/24.

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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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 33 @ 2'**  
**H242648-01 (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>336</b>		16.0	mg/kg	4	4051622	HM	16-May-24	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051529	MS	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051529	MS	16-May-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			95.4 %		71.5-134	4051529	MS	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	

Surrogate: 1-Chlorooctane			104 %		48.2-134	4051522	MS	16-May-24	8015B	
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Surrogate: 1-Chlorooctadecane			105 %		49.1-148	4051522	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 34 @ 2'**  
**H242648-02 (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>64.0</b>		16.0	mg/kg	4	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051529	MS	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051529	MS	16-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			95.2 %		71.5-134	4051529	MS	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			107 %		48.2-134	4051522	MS	16-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			105 %		49.1-148	4051522	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 35 @ 2'**  
**H242648-03 (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>160</b>		16.0	mg/kg	4	4051622	HM	16-May-24	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051529	MS	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051529	MS	16-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.7 %		71.5-134	4051529	MS	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			102 %		48.2-134	4051522	MS	16-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			104 %		49.1-148	4051522	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 37 @ 1.5'**  
**H242648-04 (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>48.0</b>		16.0	mg/kg	4	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051529	MS	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051529	MS	16-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.4 %		71.5-134	4051529	MS	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			102 %		48.2-134	4051522	MS	16-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			103 %		49.1-148	4051522	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 38 @ 1.5'**  
**H242648-05 (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>48.0</b>		16.0	mg/kg	4	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051529	MS	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051529	MS	16-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			95.0 %	71.5-134		4051529	MS	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			96.0 %	48.2-134		4051522	MS	16-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			97.6 %	49.1-148		4051522	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 39 @ 1.5'**  
**H242648-06 (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	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051529	MS	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051529	MS	16-May-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			94.9 %		71.5-134	4051529	MS	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	

Surrogate: 1-Chlorooctane			103 %		48.2-134	4051522	MS	16-May-24	8015B	
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Surrogate: 1-Chlorooctadecane			104 %		49.1-148	4051522	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 40 @ 1.5'**  
**H242648-07 (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>16.0</b>		16.0	mg/kg	4	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051529	MS	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051529	MS	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051529	MS	16-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.8 %	71.5-134		4051529	MS	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			103 %	48.2-134		4051522	MS	16-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			105 %	49.1-148		4051522	MS	16-May-24	8015B	
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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 41 @ 1.5'**  
**H242648-08 (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>48.0</b>		16.0	mg/kg	4	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051602	JH	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051602	JH	16-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		4051602	JH	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051522	MS	16-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			100 %	48.2-134		4051522	MS	16-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			102 %	49.1-148		4051522	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 42 @ 1.5'**  
**H242648-09 (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>32.0</b>		16.0	mg/kg	4	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051602	JH	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051602	JH	16-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %	71.5-134		4051602	JH	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051523	MS	15-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051523	MS	15-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051523	MS	15-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			111 %	48.2-134		4051523	MS	15-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			116 %	49.1-148		4051523	MS	15-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 43 @ 1.5'**  
**H242648-10 (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	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051602	JH	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051602	JH	16-May-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			106 %	71.5-134		4051602	JH	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051523	MS	15-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051523	MS	15-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051523	MS	15-May-24	8015B	

Surrogate: 1-Chlorooctane			109 %	48.2-134		4051523	MS	15-May-24	8015B	
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Surrogate: 1-Chlorooctadecane			110 %	49.1-148		4051523	MS	15-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**FL 44 @ 1.5'**  
**H242648-11 (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	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051602	JH	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051602	JH	16-May-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			106 %	71.5-134		4051602	JH	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	

Surrogate: 1-Chlorooctane			111 %	48.2-134		4051523	MS	16-May-24	8015B	
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Surrogate: 1-Chlorooctadecane			111 %	49.1-148		4051523	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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NW 2  
H242648-12 (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	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051602	JH	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051602	JH	16-May-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			107 %	71.5-134		4051602	JH	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	

Surrogate: 1-Chlorooctane			110 %	48.2-134		4051523	MS	16-May-24	8015B	
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Surrogate: 1-Chlorooctadecane			110 %	49.1-148		4051523	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**EW 3  
H242648-13 (Soil)**

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

**Inorganic Compounds**

Chloride	160		16.0	mg/kg	4	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051602	JH	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051602	JH	16-May-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			105 %	71.5-134		4051602	JH	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	

Surrogate: 1-Chlorooctane			112 %	48.2-134		4051523	MS	16-May-24	8015B	
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Surrogate: 1-Chlorooctadecane			110 %	49.1-148		4051523	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**SW 1  
H242648-14 (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	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051602	JH	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051602	JH	16-May-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			106 %	71.5-134		4051602	JH	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	

Surrogate: 1-Chlorooctane			114 %	48.2-134		4051523	MS	16-May-24	8015B	
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Surrogate: 1-Chlorooctadecane			113 %	49.1-148		4051523	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**WW 3  
H242648-15 (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	4051622	HM	16-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051602	JH	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051602	JH	16-May-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			107 %	71.5-134		4051602	JH	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	

Surrogate: 1-Chlorooctane			112 %	48.2-134		4051523	MS	16-May-24	8015B	
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Surrogate: 1-Chlorooctadecane			112 %	49.1-148		4051523	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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**WW 4  
H242648-16 (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>16.0</b>		16.0	mg/kg	4	4051617	CT	16-May-24	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051602	JH	16-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051602	JH	16-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051602	JH	16-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	71.5-134		4051602	JH	16-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051523	MS	16-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			110 %	48.2-134		4051523	MS	16-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			111 %	49.1-148		4051523	MS	16-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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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 4051617 - 1:4 DI Water</b>										
<b>Blank (4051617-BLK1)</b>				Prepared & Analyzed: 16-May-24						
Chloride	ND	16.0	mg/kg							
<b>LCS (4051617-BS1)</b>				Prepared & Analyzed: 16-May-24						
Chloride	400	16.0	mg/kg	400		100	80-120			
<b>LCS Dup (4051617-BSD1)</b>				Prepared & Analyzed: 16-May-24						
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	
<b>Batch 4051622 - 1:4 DI Water</b>										
<b>Blank (4051622-BLK1)</b>				Prepared & Analyzed: 16-May-24						
Chloride	ND	16.0	mg/kg							
<b>LCS (4051622-BS1)</b>				Prepared & Analyzed: 16-May-24						
Chloride	432	16.0	mg/kg	400		108	80-120			
<b>LCS Dup (4051622-BSD1)</b>				Prepared & Analyzed: 16-May-24						
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	

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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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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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 4051529 - Volatiles**

**Blank (4051529-BLK1)**

Prepared: 15-May-24 Analyzed: 16-May-24

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		96.0	71.5-134			

**LCS (4051529-BS1)**

Prepared: 15-May-24 Analyzed: 16-May-24

Benzene	1.97	0.050	mg/kg	2.00		98.6	82.8-130			
Toluene	1.92	0.050	mg/kg	2.00		96.1	86-128			
Ethylbenzene	1.96	0.050	mg/kg	2.00		97.8	85.9-128			
m,p-Xylene	3.76	0.100	mg/kg	4.00		94.1	89-129			
o-Xylene	1.84	0.050	mg/kg	2.00		92.1	86.1-125			
Total Xylenes	5.60	0.150	mg/kg	6.00		93.4	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0480		mg/kg	0.0500		96.0	71.5-134			

**LCS Dup (4051529-BSD1)**

Prepared: 15-May-24 Analyzed: 16-May-24

Benzene	1.95	0.050	mg/kg	2.00		97.6	82.8-130	1.10	15.8	
Toluene	1.91	0.050	mg/kg	2.00		95.3	86-128	0.818	15.9	
Ethylbenzene	1.95	0.050	mg/kg	2.00		97.4	85.9-128	0.383	16	
m,p-Xylene	3.74	0.100	mg/kg	4.00		93.5	89-129	0.648	16.2	
o-Xylene	1.84	0.050	mg/kg	2.00		92.0	86.1-125	0.124	16.7	
Total Xylenes	5.58	0.150	mg/kg	6.00		93.0	88.2-128	0.475	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0481		mg/kg	0.0500		96.2	71.5-134			

**Batch 4051602 - Volatiles**

**Blank (4051602-BLK1)**

Prepared & Analyzed: 16-May-24

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							

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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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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 4051602 - Volatiles**

**Blank (4051602-BLK1)**

Prepared & Analyzed: 16-May-24

Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0530		mg/kg	0.0500		106	71.5-134			

**LCS (4051602-BS1)**

Prepared & Analyzed: 16-May-24

Benzene	2.01	0.050	mg/kg	2.00		100	82.8-130			
Toluene	2.09	0.050	mg/kg	2.00		105	86-128			
Ethylbenzene	2.07	0.050	mg/kg	2.00		103	85.9-128			
m,p-Xylene	4.28	0.100	mg/kg	4.00		107	89-129			
o-Xylene	2.00	0.050	mg/kg	2.00		100	86.1-125			
Total Xylenes	6.28	0.150	mg/kg	6.00		105	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0509		mg/kg	0.0500		102	71.5-134			

**LCS Dup (4051602-BSD1)**

Prepared & Analyzed: 16-May-24

Benzene	1.93	0.050	mg/kg	2.00		96.5	82.8-130	4.04	15.8	
Toluene	2.01	0.050	mg/kg	2.00		100	86-128	4.18	15.9	
Ethylbenzene	1.98	0.050	mg/kg	2.00		99.1	85.9-128	4.17	16	
m,p-Xylene	4.15	0.100	mg/kg	4.00		104	89-129	2.94	16.2	
o-Xylene	1.93	0.050	mg/kg	2.00		96.4	86.1-125	3.62	16.7	
Total Xylenes	6.08	0.150	mg/kg	6.00		101	88.2-128	3.16	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0507		mg/kg	0.0500		101	71.5-134			

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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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 4051522 - General Prep - Organics**

<b>Blank (4051522-BLK1)</b>		Prepared & Analyzed: 15-May-24								
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	40.3		mg/kg	50.0		80.5	48.2-134			
Surrogate: 1-Chlorooctadecane	36.2		mg/kg	50.0		72.5	49.1-148			

<b>LCS (4051522-BS1)</b>		Prepared & Analyzed: 15-May-24								
GRO C6-C10	179	10.0	mg/kg	200		89.6	66.4-123			
DRO >C10-C28	172	10.0	mg/kg	200		86.2	66.5-118			
Total TPH C6-C28	352	10.0	mg/kg	400		87.9	77.6-123			
Surrogate: 1-Chlorooctane	41.7		mg/kg	50.0		83.4	48.2-134			
Surrogate: 1-Chlorooctadecane	41.5		mg/kg	50.0		82.9	49.1-148			

<b>LCS Dup (4051522-BSD1)</b>		Prepared & Analyzed: 15-May-24								
GRO C6-C10	182	10.0	mg/kg	200		91.1	66.4-123	1.74	17.7	
DRO >C10-C28	181	10.0	mg/kg	200		90.7	66.5-118	5.06	21	
Total TPH C6-C28	364	10.0	mg/kg	400		90.9	77.6-123	3.38	18.5	
Surrogate: 1-Chlorooctane	46.4		mg/kg	50.0		92.8	48.2-134			
Surrogate: 1-Chlorooctadecane	45.7		mg/kg	50.0		91.3	49.1-148			

**Batch 4051523 - General Prep - Organics**

<b>Blank (4051523-BLK1)</b>		Prepared & Analyzed: 15-May-24								
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	44.5		mg/kg	50.0		89.1	48.2-134			
Surrogate: 1-Chlorooctadecane	43.8		mg/kg	50.0		87.6	49.1-148			

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:13
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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 4051523 - General Prep - Organics**

**LCS (4051523-BS1)**

Prepared & Analyzed: 15-May-24

GRO C6-C10	178	10.0	mg/kg	200		89.0	66.4-123			
DRO >C10-C28	185	10.0	mg/kg	200		92.6	66.5-118			
Total TPH C6-C28	363	10.0	mg/kg	400		90.8	77.6-123			
Surrogate: 1-Chlorooctane	48.4		mg/kg	50.0		96.8	48.2-134			
Surrogate: 1-Chlorooctadecane	48.5		mg/kg	50.0		97.1	49.1-148			

**LCS Dup (4051523-BSD1)**

Prepared & Analyzed: 15-May-24

GRO C6-C10	180	10.0	mg/kg	200		89.9	66.4-123	1.02	17.7	
DRO >C10-C28	187	10.0	mg/kg	200		93.3	66.5-118	0.793	21	
Total TPH C6-C28	366	10.0	mg/kg	400		91.6	77.6-123	0.902	18.5	
Surrogate: 1-Chlorooctane	54.3		mg/kg	50.0		109	48.2-134			
Surrogate: 1-Chlorooctadecane	53.3		mg/kg	50.0		107	49.1-148			

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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

<b>Company Name:</b> Etech Environmental & Safety Solutions, Inc.	<b>BILL TO</b>	<b>ANALYSIS REQUEST</b>									
<b>Project Manager:</b> Lance Crenshaw	<b>P.O. #:</b>	Chloride	TPH (8015M)	BTEX (8021B)							
<b>Address:</b> 2617 West Marland	<b>Company:</b> Mewbourne										
<b>City:</b> Hobbs <b>State:</b> NM <b>Zip:</b> 88240	<b>Attn:</b> Connor Walker										
<b>Phone #:</b> (575) 264-9884 <b>Fax #:</b>	<b>Address:</b>										
<b>Project #:</b> 20138 <b>Project Owner:</b> Mewbourne	<b>City:</b>										
<b>Project Name:</b> Thundercloud Battery	<b>State:</b> NM <b>Zip:</b>										
<b>Project Location:</b> 32.7231, -103.81222	<b>Phone #:</b>										
<b>Sampler Name:</b> Aaron Rios	<b>Fax #:</b>										

FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.		SAMPLING		DATE	TIME						
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :									
	H242648																					
	11	FL 44 @ 1.5'	C	1			X				X			5/14/24			X	X	X			
	12	NW 2	C	1			X				X			5/14/24			X	X	X			
	13	EW 3	C	1			X				X			5/14/24			X	X	X			
	14	SW 2 SW 1 *	C	1			X				X			5/14/24			X	X	X			
	15	WW 3	C	1			X				X			5/14/24			X	X	X			
	16	WW 4	C	1			X				X			5/14/24			X	X	X			

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<b>Relinquished By:</b> <i>[Signature]</i>	<b>Date:</b> 5-14-24 <b>Time:</b> 7500	<b>Received By:</b> <i>[Signature]</i>	<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Add'l Phone #:</b>
<b>Relinquished By:</b>	<b>Date:</b>	<b>Received By:</b>	<b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Add'l Fax #:</b>
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other: #140 - 7.22	<b>Sample Condition:</b> Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>CHECKED BY:</b> (initials) <i>[Signature]</i>	<b>REMARKS:</b> *Client changed sample ID. Chg 6/12/24	
			Please email results and copy of CoC to pm@etechenv.com.	



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

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May 21, 2024

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: THUNDERCLOUD BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/15/24 15:01.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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:	05/15/2024	Sampling Date:	05/14/2024
Reported:	05/21/2024	Sampling Type:	Soil
Project Name:	THUNDERCLOUD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	20138	Sample Received By:	Alyssa Parras
Project Location:	MEWBOURNE 32.7231, -103.81222		

**Sample ID: BACKFILL (H242686-01)**

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	05/17/2024	ND	2.11	105	2.00	2.18	
Toluene*	<0.050	0.050	05/17/2024	ND	2.17	108	2.00	2.48	
Ethylbenzene*	<0.050	0.050	05/17/2024	ND	2.14	107	2.00	3.24	
Total Xylenes*	<0.150	0.150	05/17/2024	ND	6.58	110	6.00	2.72	
Total BTEX	<0.300	0.300	05/17/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/17/2024	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	05/16/2024	ND	176	87.9	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/16/2024	ND	172	86.0	200	1.34	
EXT DRO >C28-C36	<10.0	10.0	05/16/2024	ND					

Surrogate: 1-Chlorooctane 89.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.2 % 49.1-148

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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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Celey D. Keene, Lab Director/Quality Manager





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

June 12, 2024

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: THUNDERCLOUD BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/16/24 15:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL 45 @ 1.5'	H242727-01	Soil	15-May-24 00:00	16-May-24 15:37
FL 46 @ 1.5'	H242727-02	Soil	15-May-24 00:00	16-May-24 15:37
FL 47 @ 1.5'	H242727-03	Soil	15-May-24 00:00	16-May-24 15:37
FL 48 @ 1.5'	H242727-04	Soil	15-May-24 00:00	16-May-24 15:37
FL 49 @ 1.5'	H242727-05	Soil	15-May-24 00:00	16-May-24 15:37
FL 50 @ 7'	H242727-06	Soil	15-May-24 00:00	16-May-24 15:37
NW 1	H242727-07	Soil	15-May-24 00:00	16-May-24 15:37
EW 4	H242727-08	Soil	15-May-24 00:00	16-May-24 15:37
WW 5	H242727-09	Soil	15-May-24 00:00	16-May-24 15:37

06/12/24 - Client changed the sample ID on -07 (see COC). This is the revised report and will replace the one sent on 05/22/24.

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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**FL 45 @ 1.5'  
H242727-01 (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>256</b>		16.0	mg/kg	4	4052013	CT	20-May-24	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051718	MS	18-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051718	MS	18-May-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	71.5-134		4051718	MS	18-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	

Surrogate: 1-Chlorooctane			107 %	48.2-134		4051636	MS	17-May-24	8015B	
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Surrogate: 1-Chlorooctadecane			111 %	49.1-148		4051636	MS	17-May-24	8015B	
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\*=Accredited Analyte

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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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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**FL 46 @ 1.5'**  
**H242727-02 (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>32.0</b>		16.0	mg/kg	4	4052013	CT	20-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051718	MS	18-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051718	MS	18-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	71.5-134		4051718	MS	18-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			107 %	48.2-134		4051636	MS	17-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			111 %	49.1-148		4051636	MS	17-May-24	8015B	
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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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**FL 47 @ 1.5'**  
**H242727-03 (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>16.0</b>		16.0	mg/kg	4	4052013	CT	20-May-24	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051718	MS	18-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051718	MS	18-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		4051718	MS	18-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			111 %	48.2-134		4051636	MS	17-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			115 %	49.1-148		4051636	MS	17-May-24	8015B	
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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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**FL 48 @ 1.5'**  
**H242727-04 (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>16.0</b>		16.0	mg/kg	4	4052013	CT	20-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051718	MS	18-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051718	MS	18-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051718	MS	18-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		4051718	MS	18-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			108 %	48.2-134		4051636	MS	17-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			111 %	49.1-148		4051636	MS	17-May-24	8015B	
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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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**FL 49 @ 1.5'**  
**H242727-05 (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>272</b>		16.0	mg/kg	4	4052013	CT	20-May-24	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051719	MS	18-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051719	MS	18-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			91.8 %	71.5-134		4051719	MS	18-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			97.8 %	48.2-134		4051636	MS	17-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			101 %	49.1-148		4051636	MS	17-May-24	8015B	
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\*=Accredited Analyte

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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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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**FL 50 @ 7'  
H242727-06 (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>256</b>		16.0	mg/kg	4	4052013	CT	20-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051719	MS	18-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051719	MS	18-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			91.5 %		71.5-134	4051719	MS	18-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			111 %		48.2-134	4051636	MS	17-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			115 %		49.1-148	4051636	MS	17-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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**NW 1  
H242727-07 (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>32.0</b>		16.0	mg/kg	4	4052009	HM	20-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051719	MS	18-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051719	MS	18-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			90.9 %		71.5-134	4051719	MS	18-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			110 %		48.2-134	4051636	MS	17-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			114 %		49.1-148	4051636	MS	17-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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**EW 4**

**H242727-08 (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>32.0</b>		16.0	mg/kg	4	4052009	HM	20-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051719	MS	18-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051719	MS	18-May-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			91.6 %	71.5-134		4051719	MS	18-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			98.0 %	48.2-134		4051636	MS	17-May-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			103 %	49.1-148		4051636	MS	17-May-24	8015B	
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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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**WW 5  
H242727-09 (Soil)**

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

**Inorganic Compounds**

Chloride	304		16.0	mg/kg	4	4052009	HM	20-May-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4051719	MS	18-May-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4051719	MS	18-May-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4051719	MS	18-May-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			90.9 %		71.5-134	4051719	MS	18-May-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4051636	MS	17-May-24	8015B	

Surrogate: 1-Chlorooctane			105 %		48.2-134	4051636	MS	17-May-24	8015B	
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Surrogate: 1-Chlorooctadecane			109 %		49.1-148	4051636	MS	17-May-24	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: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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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 4052009 - 1:4 DI Water</b>										
<b>Blank (4052009-BLK1)</b>				Prepared & Analyzed: 20-May-24						
Chloride	ND	16.0	mg/kg							
<b>LCS (4052009-BS1)</b>				Prepared & Analyzed: 20-May-24						
Chloride	448	16.0	mg/kg	400		112	80-120			
<b>LCS Dup (4052009-BSD1)</b>				Prepared & Analyzed: 20-May-24						
Chloride	448	16.0	mg/kg	400		112	80-120	0.00	20	
<b>Batch 4052013 - 1:4 DI Water</b>										
<b>Blank (4052013-BLK1)</b>				Prepared & Analyzed: 20-May-24						
Chloride	ND	16.0	mg/kg							
<b>LCS (4052013-BS1)</b>				Prepared & Analyzed: 20-May-24						
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (4052013-BSD1)</b>				Prepared & Analyzed: 20-May-24						
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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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 4051718 - Volatiles**

**Blank (4051718-BLK1)**

Prepared & Analyzed: 17-May-24

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)	0.0516		mg/kg	0.0500		103	71.5-134			

**LCS (4051718-BS1)**

Prepared: 17-May-24 Analyzed: 18-May-24

Benzene	1.98	0.050	mg/kg	2.00		98.9	82.8-130			
Toluene	1.94	0.050	mg/kg	2.00		96.9	86-128			
Ethylbenzene	1.93	0.050	mg/kg	2.00		96.3	85.9-128			
m,p-Xylene	4.20	0.100	mg/kg	4.00		105	89-129			
o-Xylene	2.08	0.050	mg/kg	2.00		104	86.1-125			
Total Xylenes	6.29	0.150	mg/kg	6.00		105	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0479		mg/kg	0.0500		95.9	71.5-134			

**LCS Dup (4051718-BSD1)**

Prepared & Analyzed: 17-May-24

Benzene	2.03	0.050	mg/kg	2.00		101	82.8-130	2.50	15.8	
Toluene	2.02	0.050	mg/kg	2.00		101	86-128	4.34	15.9	
Ethylbenzene	1.96	0.050	mg/kg	2.00		98.0	85.9-128	1.73	16	
m,p-Xylene	4.28	0.100	mg/kg	4.00		107	89-129	1.74	16.2	
o-Xylene	2.11	0.050	mg/kg	2.00		106	86.1-125	1.29	16.7	
Total Xylenes	6.39	0.150	mg/kg	6.00		106	88.2-128	1.59	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0494		mg/kg	0.0500		98.8	71.5-134			

**Batch 4051719 - Volatiles**

**Blank (4051719-BLK1)**

Prepared: 17-May-24 Analyzed: 18-May-24

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							

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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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 4051719 - Volatiles**

**Blank (4051719-BLK1)**

Prepared: 17-May-24 Analyzed: 18-May-24

Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		90.8	71.5-134			

**LCS (4051719-BS1)**

Prepared: 17-May-24 Analyzed: 18-May-24

Benzene	2.12	0.050	mg/kg	2.00		106	82.8-130			
Toluene	2.03	0.050	mg/kg	2.00		102	86-128			
Ethylbenzene	2.05	0.050	mg/kg	2.00		102	85.9-128			
m,p-Xylene	3.93	0.100	mg/kg	4.00		98.2	89-129			
o-Xylene	1.92	0.050	mg/kg	2.00		95.8	86.1-125			
Total Xylenes	5.84	0.150	mg/kg	6.00		97.4	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0464		mg/kg	0.0500		92.7	71.5-134			

**LCS Dup (4051719-BSD1)**

Prepared: 17-May-24 Analyzed: 18-May-24

Benzene	2.08	0.050	mg/kg	2.00		104	82.8-130	1.92	15.8	
Toluene	1.99	0.050	mg/kg	2.00		99.6	86-128	2.09	15.9	
Ethylbenzene	2.00	0.050	mg/kg	2.00		100	85.9-128	2.18	16	
m,p-Xylene	3.85	0.100	mg/kg	4.00		96.1	89-129	2.10	16.2	
o-Xylene	1.87	0.050	mg/kg	2.00		93.5	86.1-125	2.49	16.7	
Total Xylenes	5.71	0.150	mg/kg	6.00		95.2	88.2-128	2.22	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0463		mg/kg	0.0500		92.7	71.5-134			

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: THUNDERCLOUD BATTERY Project Number: 20138 Project Manager: LANCE CRENSHAW Fax To:	Reported: 12-Jun-24 08:16
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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 4051636 - General Prep - Organics**

**Blank (4051636-BLK1)**

Prepared: 16-May-24 Analyzed: 17-May-24

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>	53.8		mg/kg	50.0		108	48.2-134			
<i>Surrogate: 1-Chlorooctadecane</i>	56.3		mg/kg	50.0		113	49.1-148			

**LCS (4051636-BS1)**

Prepared: 16-May-24 Analyzed: 17-May-24

GRO C6-C10	188	10.0	mg/kg	200		94.1	66.4-123			
DRO >C10-C28	203	10.0	mg/kg	200		102	66.5-118			
Total TPH C6-C28	391	10.0	mg/kg	400		97.8	77.6-123			
<i>Surrogate: 1-Chlorooctane</i>	57.3		mg/kg	50.0		115	48.2-134			
<i>Surrogate: 1-Chlorooctadecane</i>	57.5		mg/kg	50.0		115	49.1-148			

**LCS Dup (4051636-BSD1)**

Prepared: 16-May-24 Analyzed: 17-May-24

GRO C6-C10	185	10.0	mg/kg	200		92.6	66.4-123	1.63	17.7	
DRO >C10-C28	203	10.0	mg/kg	200		102	66.5-118	0.0320	21	
Total TPH C6-C28	388	10.0	mg/kg	400		97.1	77.6-123	0.765	18.5	
<i>Surrogate: 1-Chlorooctane</i>	60.3		mg/kg	50.0		121	48.2-134			
<i>Surrogate: 1-Chlorooctadecane</i>	60.9		mg/kg	50.0		122	49.1-148			

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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*

Celey D. Keene, Lab Director/Quality Manager



# **Appendix E**

## **Regulatory Correspondence**

**From:** [Connor Walker](#)  
**To:** [Lance Crenshaw](#); [Ben Arguijo](#)  
**Subject:** FW: [EXT] The Oil Conservation Division (OCD) has accepted the application, Application ID: 342669  
**Date:** Thursday, May 9, 2024 3:45:15 PM

---

**From:** OCDOnline@state.nm.us <OCDOnline@state.nm.us>  
**Sent:** Thursday, May 9, 2024 2:40 PM  
**To:** Connor Walker <cwalker@mewbourne.com>  
**Subject:** [EXT] The Oil Conservation Division (OCD) has accepted the application, Application ID: 342669

To whom it may concern (c/o Connor Walker for MEWBOURNE OIL CO),

The OCD has received the submitted *Notification for (Final) Sampling of a Release (C-141N)*, for incident ID (n#) nAPP2408651560.

The sampling event is expected to take place:

**When:** 05/13/2024 @ 08:00

**Where:** D-30-18S-32E 0 FNL 0 FEL (32.722926,-103.812344)

**Additional Information:** Sample Tech: Aaron Rios

Phone: 432-701-8602, [aaronr@etechnv.com](mailto:aaronr@etechnv.com)

**Additional Instructions:** From the intersection of Co Rd 126A and Dry Lake Rd (32.655528, -103.796414), head N on Co Rd 126A for 4.22 mi, then SW for 0.79 mi, then N for 0.18 mi, then W for 0.07 mi, then N for 0.70 mi to arrive at the Thundercloud Battery pad (32.722329, -103.812304).

Sampling will take place on 5/13, 5/14, 5/15, 5/16, 5/17, 5/20, 5/21, 5/22, and 5/23 due to the large number of samples.

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 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

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**Energy, Minerals and Natural Resources**  
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**Santa Fe, NM 87505**

QUESTIONS

Action 353507

**QUESTIONS**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 353507
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2408651560
Incident Name	NAPP2408651560 THUNDERCLOUD 30/29 BATTERY #1 @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received

**Location of Release Source**

Please answer all the questions in this group.

Site Name	THUNDERCLOUD 30/29 BATTERY #1
Date Release Discovered	03/15/2024
Surface Owner	Federal

**Incident Details**

Please answer all the questions in this group.

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

**Nature and Volume of Release**

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

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Lightning   Production Tank   Produced Water   Released: 113 BBL   Recovered: 60 BBL   Lost: 53 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.

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QUESTIONS, Page 2

Action 353507

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 353507
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>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	<b>True</b>
The impacted area has been secured to protect human health and the environment	<b>True</b>
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	<b>True</b>
All free liquids and recoverable materials have been removed and managed appropriately	<b>True</b>
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

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

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

I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 03/26/2024
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**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 353507
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**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	Direct Measurement
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	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 and 5 (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	Between 1 and 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 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
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.	
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)	544
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	30
GRO+DRO (EPA SW-846 Method 8015M)	20
BTEX (EPA SW-846 Method 8021B or 8260B)	0.3
Benzene (EPA SW-846 Method 8021B or 8260B)	0.1

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	05/09/2024
On what date will (or did) the final sampling or liner inspection occur	05/15/2024
On what date will (or was) the remediation complete(d)	05/28/2024
What is the estimated surface area (in square feet) that will be reclaimed	12056
What is the estimated volume (in cubic yards) that will be reclaimed	653
What is the estimated surface area (in square feet) that will be remediated	12056
What is the estimated volume (in cubic yards) that will be remediated	720

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.

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Action 353507

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 353507
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**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	LEA LAND LANDFILL [fEEM0112342028]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

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: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 06/12/2024
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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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Action 353507

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 353507
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Deferral Requests Only**

*Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.*

Requesting a deferral of the remediation closure due date with the approval of this submission	No
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Action 353507

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID:	14744
	Action Number:	353507
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>342669</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>05/13/2024</b>
What was the (estimated) number of samples that were to be gathered	<b>110</b>
What was the sampling surface area in square feet	<b>16000</b>

**Remediation Closure Request**

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

Requesting a remediation closure approval with this submission	<b>Yes</b>
Have the lateral and vertical extents of contamination been fully delineated	<b>Yes</b>
Was this release entirely contained within a lined containment area	<b>No</b>
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	<b>Yes</b>
What was the total surface area (in square feet) remediated	<b>12056</b>
What was the total volume (cubic yards) remediated	<b>720</b>
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	<b>Yes</b>
What was the total surface area (in square feet) reclaimed	<b>12056</b>
What was the total volume (in cubic yards) reclaimed	<b>720</b>
Summarize any additional remediation activities not included by answers (above)	<b>Please see attached closure report for complete remediation activities.</b>

*The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.*

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 06/12/2024
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Action 353507

**QUESTIONS (continued)**

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	Action Number: 353507
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

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

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CONDITIONS

Action 353507

**CONDITIONS**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 353507
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**CONDITIONS**

Created By	Condition	Condition Date
crystal.walker	Operator failed to provide proper Sampling Notification pursuant to 19.15.29.12.D.(1).(a) NMAC. Failure to provide proper sampling notice is a compliance issue and OCD may pursue compliance actions pursuant to 19.15.5 NMAC. Operator shall ensure future compliance with 19.15.29.12.D.(1).(a) NMAC	7/10/2024
crystal.walker	Closure Approved. Sampling Notifications need to be submitted for all confirmation sampling events. The two-day notification was submitted for samples taken on 5/13/2024, but not for samples taken on 5/14/2024 or 5/15/2024. The NMOCD does not have to accept confirmation samples without a sampling notification. Please be sure to submit sampling notifications for all confirmation sampling events in the future.	7/10/2024