

Incident ID	NAPP227234168
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>180.0</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Form C-141

State of New Mexico

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Oil Conservation Division

Incident ID	nAPP2227234168
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Risa CzarnikowTitle: Production TechSignature: Risa CzarnikowDate: 3-29-23email: rczarnikow@helmsoil.comTelephone: (432) 688-3727**OCD Only**Received by: Jocelyn HarimonDate: 03/30/2023

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## Closure

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

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Risa CzarnikowTitle: Production TechSignature: Risa CzarnikowDate: 3-29-23email: rczarnikow@helmsol.comTelephone: (432) 688-3727

### OCD Only

Received by: Jocelyn HarimonDate: 03/30/2023

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

Closure Approved by: Jennifer NobuiDate: 05/04/2023Printed Name: Jennifer NobuiTitle: Environmental Specialist A



## Amended Remediation Summary and Soil Closure Request

### **H.L. Brown Operating, LLC Federal H 002**

Roosevelt County, New Mexico  
Unit Letter A, Section 5, Township 8 South, Range 37 East  
Latitude 33.655631 North, Longitude 103.169055 West  
**NMOCD Reference No. nAPP2227234168**

Prepared By:

**Etech Environmental & Safety Solutions, Inc.**  
2617 W. Marland  
Hobbs, New Mexico 88240



Zach Conder



Ben J .Arguijo



*Midland • San Antonio • Lubbock • Hobbs • Lafayette*



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## 1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of H.L. Brown Operating, LLC, has prepared this Amended Remediation Summary and Soil Closure Request for the release site known as the Federal H 002 (henceforth, "Site"). Details of the release are summarized below:

### Location of Release Source

Latitude: 33.655631 Longitude: -103.169055

Provided GPS are in WGS84 format.

Site Name:	Federal H 002	Site Type:	Well Head
Date Release Discovered:	9/7/2022	API # (if applicable):	30-041-20934

Unit Letter	Section	Township	Range	County
A	5	8S	37E	Roosevelt

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name KIZER MACK LIFE ESTATE)

### Nature and Volume of Release

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) <u>5 bbls</u>	Volume Recovered (bbls) <u>0 bbls</u>
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released	Volume/Weight Recovered
Cause of Release: Unknown. Historical release found during site inspection.		

### Initial Response

<input checked="" type="checkbox"/> The source of the release has been stopped.
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.
<input checked="" type="checkbox"/> Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

## 2.0 SITE CHARACTERIZATION

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

What is the shallowest depth to groundwater beneath the area affected by the release?	180 Feet	
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production or storage site?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figures 1, 2, 4, and 5.

## 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 Standard for the Site are as follows:

Probable Depth to Groundwater	Constituent	Method	Closure Criteria	Reclamation Standard*
180 Feet	Chloride	EPA 300.0 or SM4500 Cl B	20,000 mg/kg	600 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2,500 mg/kg	100 mg/kg
	DRO + GRO	EPA SW-846 Method 8015M	1,000 mg/kg	-
	BTEX	EPA SW-846 Methods 8021b or 8260b	50 mg/kg	50 mg/kg
	Benzene	EPA SW-846 Methods 8021b or 8260b	10 mg/kg	10 mg/kg

\* The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas.



## **4.0 REMEDIATION ACTIVITIES SUMMARY**

On November 7, 2022, remediation activities commenced at the Site. In accordance with NMOCD regulations, impacted soil affected above the NMOCD Closure Criteria was excavated and stockpiled on-site, pending transfer to an NMOCD-approved surface waste facility for disposal. The floor and sidewalls of the excavation were advanced until field observations and test results suggested BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria.

Upon excavating impacted soil affected above the NMOCD Closure Criteria, Etech collected eighteen (18) confirmation soil samples. The collected soil samples were submitted to a certified, commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria in all of the submitted soil samples.

In addition, Etech collected eight (8) horizontal delineation soil samples representative of each cardinal direction in an effort to further characterize the horizontal extent of the release. The collected soil samples were submitted to a certified, commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria and NMOCD Reclamation standard in all of the submitted soil samples.

Site and sample location maps are provided as Figure 3A and Figure 3B. A soil chemistry table is provided as Table 1. Field data and soil profile logs are provided as Appendix B. Laboratory analytical reports are provided as Appendix C.

The final dimensions of the excavated areas ranged from ten (10) to thirty (30) feet in length, four (4) to twenty (20) feet in width and two (2) to four (4) feet in depth. During the course of remediation activities, approximately one hundred and forty (140) cubic yards of impacted soil were transported to an NMOCD-approved surface waste facility for disposal.

## **5.0 RESTORATION, RECLAMATION, AND RE-VEGETATION PLAN**

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area was compacted and contoured to achieve erosion control, stability, and preservation of surface water flow, to the extent practicable. Re-vegetation at the site will not be necessary due to the fact all affected areas were on the production pad.

## **6.0 SOIL CLOSURE REQUEST**

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

Based on laboratory analytical results and field activities conducted to date, Etech recommends H.L. Brown Operating, LLC, provide copies of this Amended Remediation Summary and Soil Closure Request to the appropriate agencies and request closure be granted to the Federal H 002 Site.

## **7.0 LIMITATIONS**

Etech Environmental & Safety Solutions, Inc., has prepared this Amended Remediation Summary and 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 H.L. Brown Operating, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or H.L. Brown Operating, LLC.

## **8.0 DISTRIBUTION**

***H.L. Brown Operating, LLC***

*300 West Louisiana*

*Midland, TX 79702-2237*

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

*Oil Conservation Division, District 2*

*811 S. First Street*

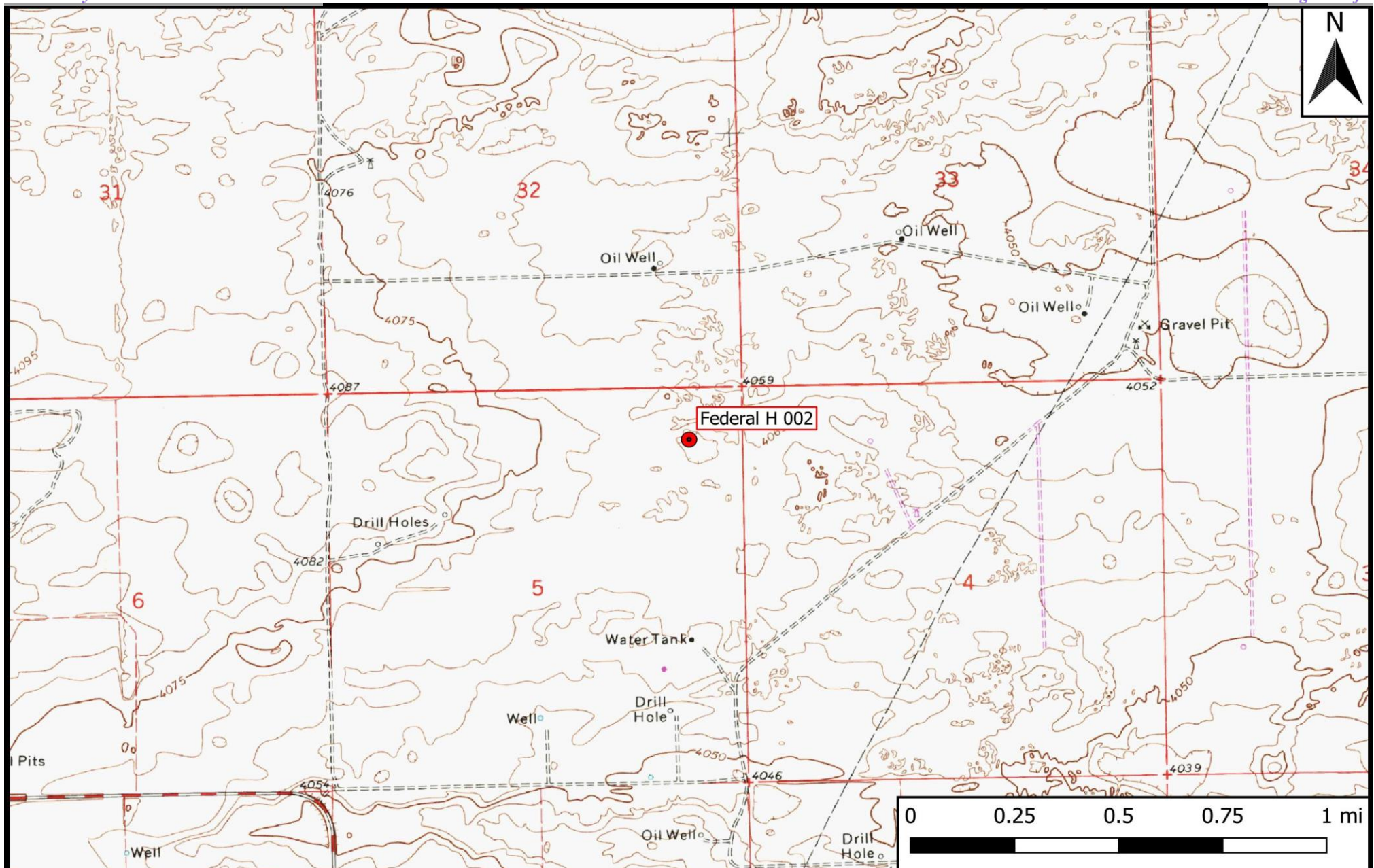
*Artesia, NM 88210*

*(Electronic Submission)*



# **Figure 1**

## **Topographic Map**



## Legend

- Site Location

Figure 1

Topographic Map  
H.L. Brown Operating, LLC  
Federal H 002  
GPS: 33.655631, -103.169055  
Roosevelt County



Drafted: mag

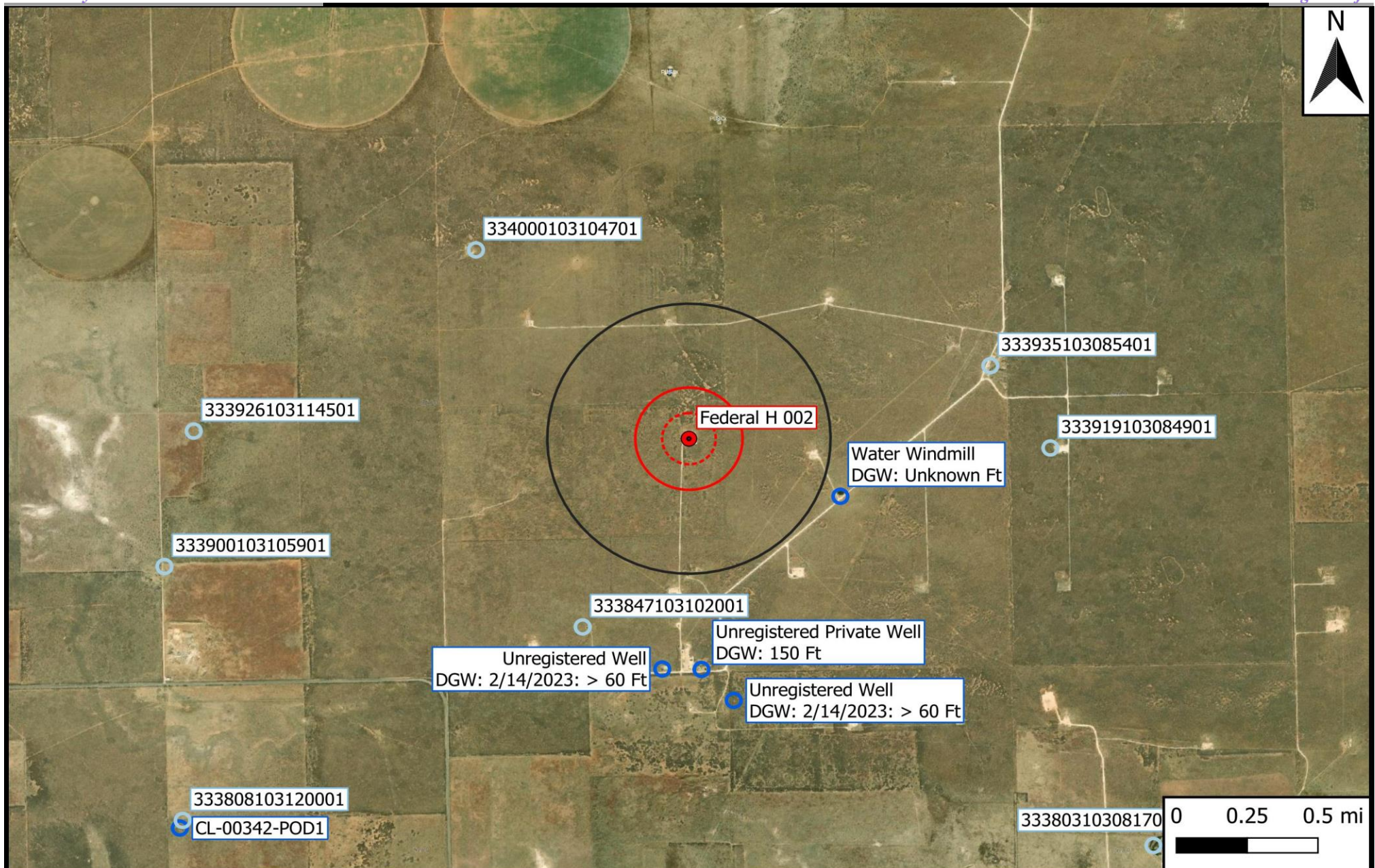
Checked: jk

Date: 3/17/23

## **Figure 2**

### **Aerial Proximity Map**





Legend	
<span style="color: red;">●</span> Site Location	<span style="border: 1px dashed red; padding: 2px;"> </span> 500 Ft Radius
<span style="border: 1px solid blue; border-radius: 50%; padding: 2px;"> </span> Well - NMOSE	<span style="border: 1px solid red; padding: 2px;"> </span> 1000 Ft Radius
<span style="border: 1px solid lightblue; border-radius: 50%; padding: 2px;"> </span> Well - USGS	<span style="border: 1px solid black; padding: 2px;"> </span> 0.5 Mi Radius
<span style="border-bottom: 1px solid orange; display: inline-block; width: 20px;"></span> Potash Mine Workings	<span style="background-color: lightblue; width: 10px; height: 10px; display: inline-block;"></span> 1% Annual Flood Chance
<span style="background-color: lightpink; width: 10px; height: 10px; display: inline-block;"></span> Medium/High Karst	<span style="background-color: blue; width: 10px; height: 10px; display: inline-block;"></span> Lake/Freshwater Pond
	<span style="background-color: green; width: 10px; height: 10px; display: inline-block;"></span> Emergent/Forested Wetlands
	<span style="background-color: cyan; width: 10px; height: 10px; display: inline-block;"></span> Riverine

**Figure 2**  
Aerial Proximity Map  
H.L. Brown Operating, LLC  
Federal H 002  
GPS: 33.655631, -103.169055  
Roosevelt County

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

Drafted: mag

Checked: jk

Date: 3/17/23

## **Figure 3A and Figure 3B Site and Sample Location Map**





## Legend:

- Confirmation Sample Location
- Horizontal Delineation Sample Point
- Excavated Area

## Figure 3A

Site and Sample Location Map - Tank Battery  
 H.L. Brown Operating, LLC  
 Federal H 002  
 GPS: 33.647478, -103.170198  
 Roosevelt County



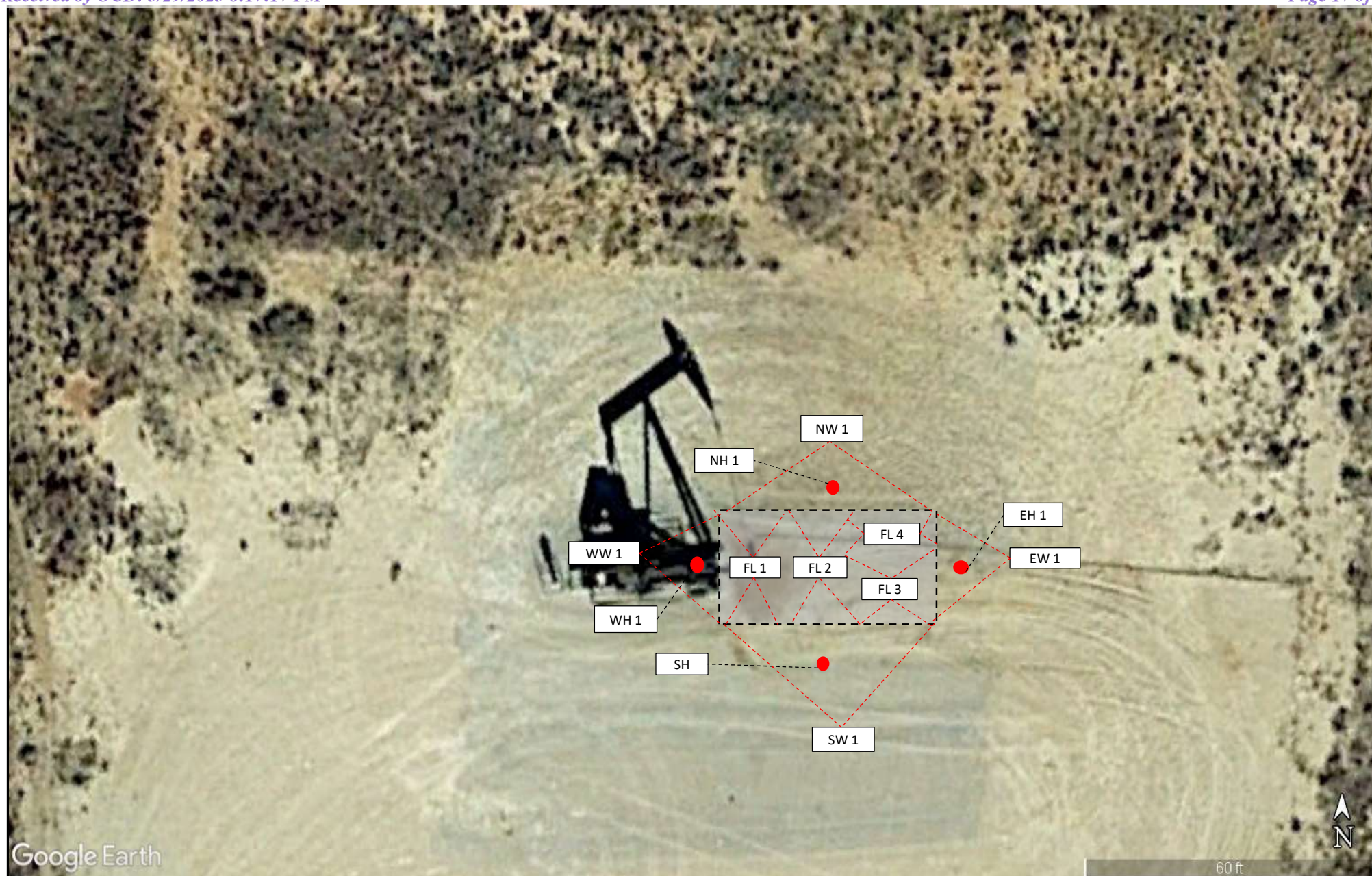
Drafted:




Checked: jwl

Date:

1/17/23



**Legend:**

-  Confirmation Sample Location
-  Horizontal Delineation Sample Point
-  Excavated Area

**Figure 3B**

Site and Sample Location Map - Wellhead  
 H.L. Brown Operating, LLC  
 Federal H 002  
 GPS: 33.647478, -103.170198  
 Roosevelt County



Drafted:

Checked: jwl

Date:

1/17/23

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

**Table 1**  
**Concentrations of BTEX, TPH, and Chloride in Soil**  
**H.L. Brown Operating, LLC**  
**Federal H 002**  
**NMOCD Ref. #: nAPP2227234168**

NMOCD Closure Criteria				10	50	-	-	1,000	-	2,500	20,000
NMOCD Reclamation Standard				10	50	-	-	-	-	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)
EH 1 @ 1'	12/20/2022	1	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
EH 2 @ 1'	12/20/2022	1	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
NH 1 @ 1'	12/20/2022	1	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
NH 2 @ 1'	12/20/2022	1	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	112
SH 1 @ 1'	12/20/2022	1	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SH 2 @ 1'	12/20/2022	1	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
WH 1 @ 1'	12/20/2022	1	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
WH 2 @ 1'	12/20/2022	1	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 1 @ 2'	11/7/2022	2	Excavated	<0.050	0.765	36.8	1,210	<b>1,250</b>	94.5	1,340	592
FL 1 @ 4'	11/22/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	-
FL 2 @ 3'	11/7/2022	3	Excavated	<0.050	1.85	108	3,340	<b>3,450</b>	427	<b>3,880</b>	768
FL 2 @ 4'	11/22/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	-
FL 3 @ 2'	11/7/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	288
FL 4 @ 2'	11/7/2022	2	Excavated	0.205	34.8	614	1,370	<b>1,980</b>	86.6	2,070	64.0
FL 4 @ 4'	11/22/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	-
FL 5 @ 2'	11/7/2022	2	In-Situ	<0.050	8.11	125	728	853	81.3	934	32.0
FL 6 @ 3'	11/22/2022	3	In-Situ	<0.050	<0.300	<10.0	31.5	31.5	<10.0	31.5	-
EW 1	11/7/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	768
EW 2	11/7/2022	0-	Excavated	0.449	46.6	1,020	15,900	<b>16,900</b>	1,930	<b>18,900</b>	80.0
EW 2 B	11/22/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	-
EW 3	11/7/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
NW 1	11/7/2022	0-	Excavated	<0.200	33.0	1,910	7,440	<b>9,350</b>	346	<b>9,700</b>	400
NW 1 B	11/22/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	-
NW 2	11/7/2022	0-	In-Situ	<0.050	<0.300	<10.0	201	201	36.7	238	160
NW 3	11/7/2022	0-	In-Situ	<0.050	<0.300	<10.0	12.6	12.6	<10.0	12.6	80.0
SW 1	11/7/2022	0-	Excavated	<0.500	<b>87.6</b>	1,360	6,300	<b>7,660</b>	655	<b>8,320</b>	592
SW 1 B	11/22/2022	0-	Excavated	<0.200	24.7	1,010	5,270	<b>6,280</b>	481	<b>6,760</b>	-
SW 1 C	12/7/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	-
SW 2	11/7/2022	0-	Excavated	2.55	<b>101</b>	1,650	5,540	<b>7,190</b>	544	<b>7,730</b>	32.0
SW 2 B	11/22/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	-
SW 3	11/7/2022	0-	Excavated	1.17	<b>162</b>	2,370	5,950	<b>8,320</b>	436	<b>8,760</b>	<16.0
SW 3 B	11/22/2022	0-	In-Situ	<0.050	21.6	61.2	223	284	13.1	297	-
WW 1	11/7/2022	0-	Excavated	<0.050	<0.300	<50.0	1,330	<b>1,330</b>	298	1,630	672
WW 1 B	11/22/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	-
WW 2	11/7/2022	0-	In-Situ	<0.050	0.321	<10.0	73.2	73.2	<10.0	73.2	112
WW 3	11/7/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0

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

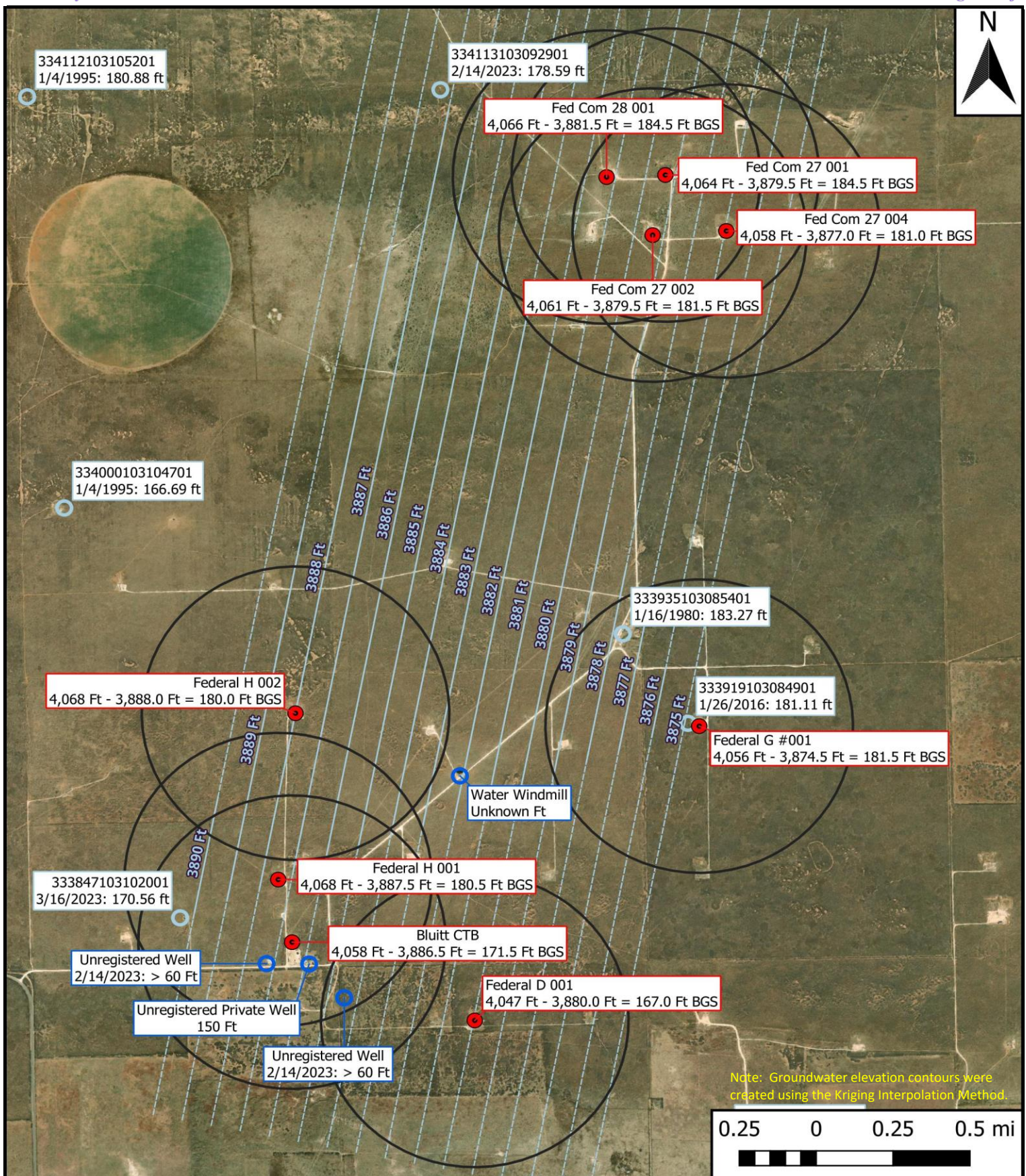
Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

## **Appendix A**

### **Depth to Groundwater Information**





- Site Location
- Half Mile Radius
- Well - USGS
- Well - Other
- Groundwater Contours (Ft MSL)
- Extended Groundwater Contours

**HL Brown Sites**  
 Inferred Depth to Groundwater Map  
 H.L. Brown Operating, LLC  
 Map GPS: 33.66350422, -103.15426221  
 Roosevelt County, NM



Drafted: mag  
 Checked: jwl  
 Date: 3/17/23





## Ground Water Sampling Log

Well ID: Unregistered Well

Date: 2/14/2023

### Site Description/Construction Detail

Project: HL Browns Personnel:

Well Description/Location: Abandoned well SE of House Total Depth<sup>a</sup> (ft bmp): N/A

Type of Well:    Monitor    Recovery    Potable    Irrigation    Other

Casing Material: PVC (Steel) Other \_\_\_\_\_ Diameter: 2" 4" 6" Other 10" Screen (ft bmp): Stow Pipe

Condition of Seal: Good Poor Needs Repair Other Well Locked? Y N

## Gauging Data

Static Water Level<sup>b</sup> (ft bmp) 760 Time \_\_\_\_\_ Measure Point Description Top of casing .75 ft ass

Comments: Open @ 60 ft, did not go deeper, fear of equipment damage

### Well Purge Data

Volume Factors <sup>c</sup>					
Dia (in.)	2"	3"	4"	5"	6"
Gal/ft	0.163	0.367	0.653	1.020	1.469

Well Volume ((a-b) x c) = gal

Purging Volume (3 x Well Vol) = \_\_\_\_\_ gal

Well Purging Method: submersible peristaltic bailer other \_\_\_\_\_ Depth pump set (ft bmp) \_\_\_\_\_

### Water Quality Indicator Parameters

[illegible]

**Recording Interval:** Traditional volume purge - every ½ well volume; Low flow - every 3-5 min, drawdown should not exceed 0.33ft during purging.

Total Gallons Purged

Approximate Discharge Rate (gpm): \_\_\_\_\_

### Sample Data

Sample Collection Method:   submersible   peristaltic   bailer   other\_\_\_\_\_ Sample Time \_\_\_\_\_

**Comments** \*Project name for sample labels (if abbr): \_\_\_\_\_ Duplicate Collected? Y N

Stability • pH:  $\pm 0.1$

Criteria:

- SC:  $\pm 5\%$ , for SC  $\leq 100 \mu\text{S/cm}$ ;  $\pm 3\%$ , for SC  $> 100 \mu\text{S/cm}$
- DO:  $\pm 10\%$  or 0.3 mg/L (whichever is greater)
- Temp:  $\pm 0.2^\circ\text{C}$  (USGS for thermistor)

Sample tubing left in well?    Y    N  
(circle yes or no)

If so, length (ft)?





## Ground Water Sampling Log

Well ID: C1nregistered well

Date: 2/14/2023

### Site Description/Construction Detail

Project: HL Browns Personnel: \_\_\_\_\_

Well Description/Location: Abandoned well Total Depth<sup>a</sup> (ft bmp): N/A

Type of Well: Monitor Recovery Potable Irrigation Other Abandoned Livestock

Casing Material: PVC Steel Other \_\_\_\_\_ Diameter: 2" 4" 6" Other \_\_\_\_\_ Screen (ft bmp): Stove Pipe

Condition of Seal: Good Poor Needs Repair Other \_\_\_\_\_ Well Locked? Y N

## Gauging Data

Static Water Level<sup>b</sup> (ft bmp) 760 ft Time \_\_\_\_\_ Measure Point Description Top of Casine 1.5 ft ass

Comments: Open @ 60 ft, did not go deeper, fear of losing equipment / damage

### Well Purge Data

Volume Factors <sup>c</sup>					
Dia (in.)	2"	3"	4"	5"	6"
Gal/ft	0.163	0.367	0.653	1.020	1.469

Well Volume ((a-b) x c) = gal

Purging Volume (3 x Well Vol) = \_\_\_\_\_ gal

Well Purging Method: submersible peristaltic bailer other \_\_\_\_\_ Depth pump set (ft bmp) \_\_\_\_\_

## Water Quality Indicator Parameters

[illegible]

**Recording Interval:** Traditional volume purge - every ½ well volume; Low flow - every 3-5 min, drawdown should not exceed 0.33ft during purging.

Total Gallons Purged

Approximate Discharge Rate (gpm): \_\_\_\_\_

### Sample Data

Sample Collection Method: submersible peristaltic bailer other\_\_\_\_\_ Sample Time\_\_\_\_\_

**Comments** \*Project name for sample labels (if abbr): \_\_\_\_\_ Duplicate Collected? Y N

Stability • pH:  $\pm 0.1$

Criteria:

- SC:  $\pm 5\%$ , for SC  $\leq 100 \mu\text{S/cm}$ ;  $\pm 3\%$ , for SC  $> 100 \mu\text{S/cm}$
- DO:  $\pm 10\%$  or  $0.3 \text{ mg/L}$  (whichever is greater)
- Temp:  $\pm 0.2^\circ\text{C}$  (USGS for thermistor)

Sample tubing left in well?    Y    N  
(circle yes or no)

If so, **length** (ft)?



## Ground Water Sampling Log

Well ID: 333647103102001

Date: 2/14/2016

### Site Description/Construction Detail

Project: HL Browns Personnel: \_\_\_\_\_

Well Description/Location: Abandoned well Total Depth<sup>a</sup> (ft bmp): NA

Type of Well: Monitor Recovery Potable Irrigation Other

Casing Material: PVC Steel Other \_\_\_\_\_ Diameter: 2" 4" 6" Other \_\_\_\_\_ Screen (ft bmp): Stone Pipe

Condition of Seal:    Good    Poor    Needs Repair    Other                      Well Locked? Y    N

## Gauging Data

Static Water Level<sup>b</sup> (ft bmp) 760 Time            Measure Point Description           

Comments: Did not go deeper, fear of equipment damage

## Well Purge Data

Volume Factors <sup>c</sup>					
Dia (in.)	2"	3"	4"	5"	6"
Gal/ft	0.163	0.367	0.653	1.020	1.469

Well Volume ((a-b) x c) = \_\_\_\_\_ gal

Purging Volume (3 x Well Vol) = \_\_\_\_\_ gal

Well Purging Method: ☒ submersible ☐ peristaltic ☐ bailer ☐ other \_\_\_\_\_ Depth pump set (ft bmp) \_\_\_\_\_

### Water Quality Indicator Parameters

[illegible]

**Recording Interval:** Traditional volume purge - every ½ well volume; Low flow - every 3-5 min, drawdown should not exceed 0.33ft during purging.

Total Gallons Purged

Approximate Discharge Rate (gpm): \_\_\_\_\_

### Sample Data

Sample Collection Method:    submersible    peristaltic    bailer    other\_\_\_\_\_    Sample Time\_\_\_\_\_

**Comments** \*Project name for sample labels (if abbr): \_\_\_\_\_ Duplicate Collected? Y N

Stability • pH:  $\pm 0.1$

Criteria:

- SC:  $\pm 5\%$ , for SC  $\leq 100 \mu\text{S/cm}$ ;  $\pm 3\%$ , for SC  $> 100 \mu\text{S/cm}$
- DO:  $\pm 10\%$  or  $0.3 \text{ mg/L}$  (whichever is greater)
- Temp:  $\pm 0.2^\circ\text{C}$  (USGS for thermistor)

Sample tubing left in well?    Y    N  
(circle yes or no)

If so, **length** (ft)? \_\_\_\_\_



## Ground Water Sampling Log

Well ID: 334113103092901

Date: 2/14/2023

### Site Description/Construction Detail

Project: HL Browns Personnel: \_\_\_\_\_

Well Description/Location: NW of Fed Corner Total Depth<sup>a</sup> (ft bmp): N/A

Type of Well: Monitor ☒ Recovery ☐ Potable ☐ Irrigation ☐ Other Abandoned / Livestock

Casing Material: PVC Steel Other \_\_\_\_\_ Diameter: 2" 4" 6" Other \_\_\_\_\_ Screen (ft bmp): \_\_\_\_\_

Condition of Seal:	Good	Poor	Needs Repair	Other	Well Locked?	Y	N
--------------------	------	------	--------------	-------	--------------	---	---

## Gauging Data

Static Water Level<sup>b</sup> (ft bmp) 178.59 Time \_\_\_\_\_ Measure Point Description Top of Casine

Comments:

### Well Purge Data

Volume Factors <sup>c</sup>					
Dia (in.)	2"	3"	4"	5"	6"
Gal/ft	0.163	0.367	0.653	1.020	1.469

Well Volume ((a-b) x c) = \_\_\_\_\_ gal

Purging Volume (3 x Well Vol) = \_\_\_\_\_ gal

Well Purging Method: ☒ submersible ☐ peristaltic ☐ bailer ☐ other \_\_\_\_\_ Depth pump set (ft bmp) \_\_\_\_\_

## Water Quality Indicator Parameters

[illegible]

**Recording Interval:** Traditional volume purge - every ½ well volume; Low flow - every 3-5 min, drawdown should not exceed 0.33ft during purging.

Total Gallons Purged \_\_\_\_\_

Approximate Discharge Rate (gpm): \_\_\_\_\_

### Sample Data

Sample Collection Method: submersible peristaltic bailer other \_\_\_\_\_ Sample Time \_\_\_\_\_

**Comments** \*Project name for sample labels (if abbr): \_\_\_\_\_ Duplicate Collected? Y N

- |           |   |
|-----------|---|
| Stability | • pH: $\pm 0.1$   |
| Criteria: | <ul style="list-style-type: none"> <li>• SC: <math>\pm 5\%</math>, for SC <math>\leq 100 \mu\text{S/cm}</math>; <math>\pm 3\%</math>, for SC <math>&gt; 100 \mu\text{S/cm}</math></li> <li>• DO: <math>\pm 10\%</math> or <math>0.3 \text{ mg/L}</math> (whichever is greater)</li> <li>• Temp: <math>\pm 0.2^\circ\text{C}</math> (USGS for thermistor)</li> </ul> |

Sample tubing left in well?    Y    N  
(circle yes or no)

If so, **length** (ft)?





## Ground Water Sampling Log

Well ID: 333847103102001

Date: 3/16/2023

### Site Description/Construction Detail

Project: HL Browns Personnel: \_\_\_\_\_

Well Description/Location: Abandoned Well Total Depth<sup>a</sup> (ft bmp): N/A

Type of Well: Monitor ☐ Recovery ☐ Potable ☐ Irrigation ☐ Other ☒ Abandoned Well, Livestock

Casing Material: PVC Steel Other \_\_\_\_\_ Diameter: 2" 4" 6" Other \_\_\_\_\_ Screen (ft bmp): Stone Pipe

Condition of Seal: Good Poor Needs Repair Other N/A Well Locked? Y (N)

## Gauging Data

Static Water Level<sup>b</sup> (ft bmp) 176.56 Time \_\_\_\_\_ Measure Point Description Top of Casing ~ 2 ft sgs

Comments:

## Well Purge Data

Volume Factors <sup>c</sup>					
Dia (in.)	2"	3"	4"	5"	6"
Gal/ft	0.163	0.367	0.653	1.020	1.469

Well Volume ((a-b) x c) = gal

Purging Volume (3 x Well Vol) = \_\_\_\_\_ gal

Well Purging Method: ☒ submersible ☐ peristaltic ☐ bailer ☐ other \_\_\_\_\_ Depth pump set (ft bmp) \_\_\_\_\_

### Water Quality Indicator Parameters

[illegible]

**Recording Interval:** Traditional volume purge - every ½ well volume; Low flow - every 3-5 min, drawdown should not exceed 0.33ft during purging.

Total Gallons Purged

Approximate Discharge Rate (gpm):

### Sample Data

Sample Collection Method:    submersible    peristaltic    bailer    other \_\_\_\_\_    Sample Time \_\_\_\_\_

**Comments** \*Project name for sample labels (if abbr): \_\_\_\_\_ Duplicate Collected? Y N

Stability • pH:  $\pm 0.1$ 

Criteria:

- SC:  $\pm 5\%$ , for SC  $\leq 100 \mu\text{S/cm}$ ;  $\pm 3\%$ , for SC  $> 100 \mu\text{S/cm}$
- DO:  $\pm 10\%$  or  $0.3 \text{ mg/L}$  (whichever is greater)
- Temp:  $\pm 0.2^\circ\text{C}$  (USGS for thermistor)

Sample tubing left in well?    Y    N  
(circle yes or no)

If so, length (ft)?



# 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 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">CL 00342 POD1</a>		CL	RO	1	1	3	07	08S	37E	666880	3723166	3136	101		
Average Depth to Water:														--	
Minimum Depth:														--	
Maximum Depth:														--	

Record Count: 1

UTMNAD83 Radius Search (in meters):


Easting (X): 669684.3      Northing (Y): 3724571.76      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.



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tw</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
NA	CL 00342 POD1	1	1	3	07	08S	37E	666880	3723166 

---

**Driller License:** 1145      **Driller Company:** GILCO DRILLING COMPANY

**Driller Name:** GILLIAM, DUB ALLEN

**Drill Start Date:** 09/15/2017      **Drill Finish Date:** 09/18/2017      **Plug Date:**

**Log File Date:** 10/02/2017      **PCW Rev Date:**      **Source:** Shallow

**Pump Type:**      **Pipe Discharge Size:**      **Estimated Yield:** 1 GPM

**Casing Size:** 5.00      **Depth Well:** 101 feet      **Depth Water:**

---

**Water Bearing Stratifications:**

<b>Top</b>	<b>Bottom</b>	<b>Description</b>
85	96	Sandstone/Gravel/Conglomerate

---

**Casing Perforations:**

<b>Top</b>	<b>Bottom</b>
20	101

---

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

10/13/22 9:53 AM

POINT OF DIVERSION SUMMARY





# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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

1. GENERAL AND WELL LOCATION	OSE POD NUMBER (WELL NUMBER) <b>CL 00342 PDD1</b>				OSE FILE NUMBER(S) <b>CL 00342</b>			
	WELL OWNER NAME(S) <b>Steve R. Teston</b>				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS <b>4098 S Roosevelt Rd L</b>				CITY <b>Milford</b>		STATE <b>NM</b>	
					ZIP <b>88125</b>			
WELL LOCATION (FROM GPS)	DEGREES		MINUTES		SECONDS		ACCURACY REQUIRED: ONE TENTH OF A SECOND	
	LATITUDE		33°		38.115		* DATUM REQUIRED: WGS 84	
LONGITUDE		103°		12.041				
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE <b>NW NW SW 1/2 SEC 7 Township 8 S Range 37 E</b>								
2. DRILLING & CASING INFORMATION	LICENSE NUMBER <b>1145</b>		NAME OF LICENSED DRILLER <b>Dub Gilliam</b>			NAME OF WELL DRILLING COMPANY <b>Gileo Drilling Co.</b>		
	DRILLING STARTED <b>9-15-17</b>		DRILLING ENDED <b>9-18-17</b>		DEPTH OF COMPLETED WELL (FT) <b>101</b>		BORE HOLE DEPTH (FT) <b>101</b>	
					DEPTH WATER FIRST ENCOUNTERED (FT) <b>Unknown</b>			
	COMPLETED WELL IS:		<input type="checkbox"/> ARTESIAN		<input type="checkbox"/> DRY HOLE		<input checked="" type="checkbox"/> SHALLOW (UNCONFINED)	
	DRILLING FLUID:		<input type="checkbox"/> AIR		<input checked="" type="checkbox"/> MUD		ADDITIVES - SPECIFY:	
	DRILLING METHOD:		<input checked="" type="checkbox"/> ROTARY		<input type="checkbox"/> HAMMER		<input type="checkbox"/> CABLE TOOL	
							OTHER - SPECIFY:	
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)		CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)		CASING CONNECTION TYPE	
	FROM	TO						
	0	20	14	Plastic	Glue	5	160"	
20	101	8 3/4	Plastic	Glue	5	160"	0.35"	
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)		LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL		AMOUNT (cubic feet)	
	FROM	TO						
	0	20	14	Cement	20	Wheel Barrel		
	20	101	8 3/4	Gravel Pack oo gravel	81	Shovel		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 10/29/15)

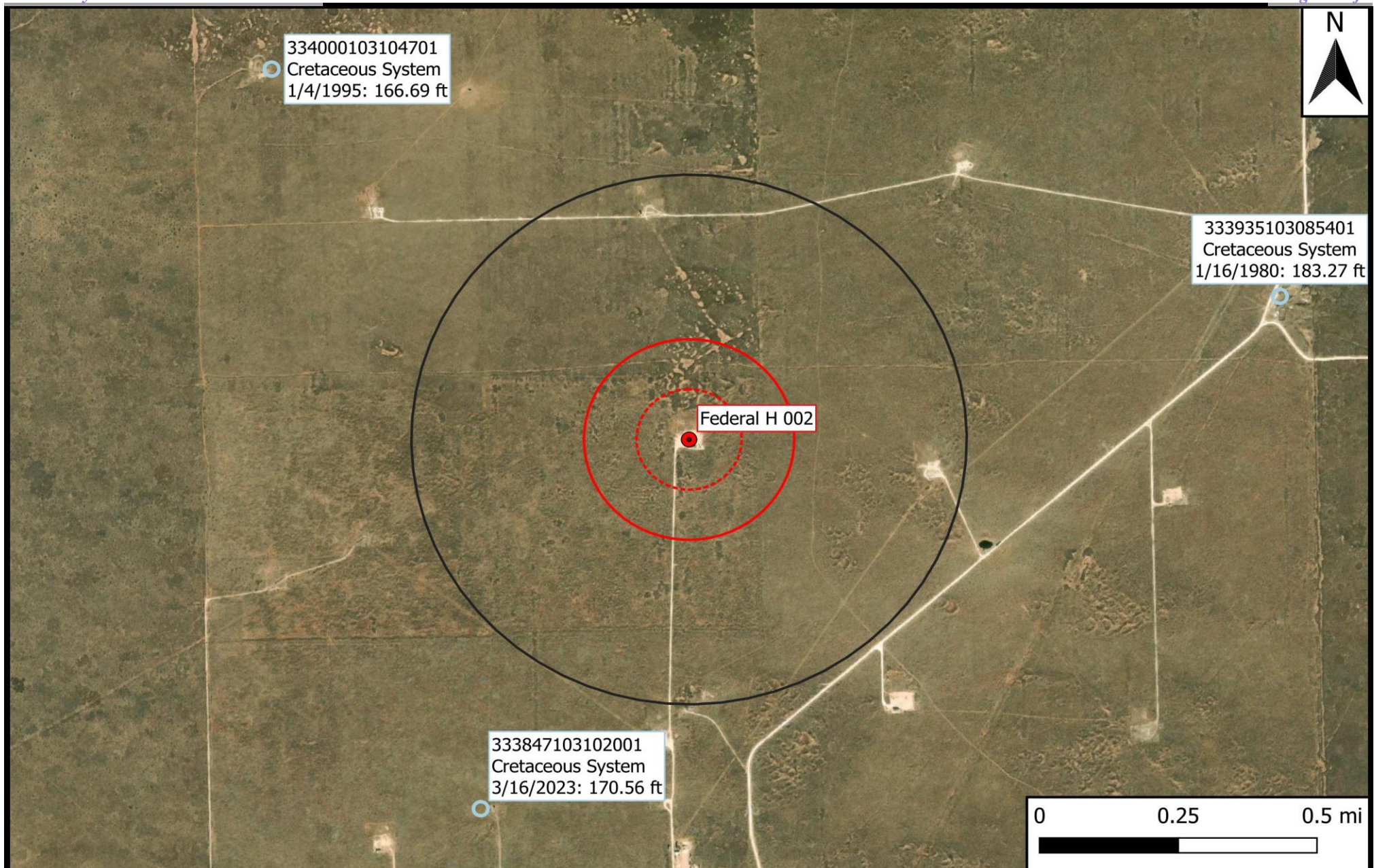
FILE NUMBER <b>CL-342</b>	POD NUMBER <b>1</b>	TRN NUMBER <b>605580</b>
LOCATION <b>STR</b>	<b>85.37E.7.311</b>	

PAGE 1 OF 2

STATE DEPT OFFICE  
ROSBETH, N.J. MEXICO  
707 OCT -2 1941: 12

PAGE 2 OF 2



**Legend**

- Site Location
- Well - USGS
- 500 Ft Radius
- 1000 Ft Radius
- 0.5 Mi Radius

**Figure 4**

USGS Well Proximity Map  
H.L. Brown Operating, LLC  
Federal H 002  
GPS: 33.655631, -103.169055  
Roosevelt County



Drafted: mag

Checked: jk

Date: 3/17/23



[USGS Home](#)  
[Contact USGS](#)  
[Search USGS](#)

## National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

[Click for News Bulletins](#)

[Groundwater levels for the Nation](#)



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

### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 333847103102001

Minimum number of levels = 1

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

### USGS 333847103102001 08S.37E.05.43131

Available data for this site

Groundwater: Field measurements

GO

Roosevelt County, New Mexico

Hydrologic Unit Code 12080001

Latitude 33°38'44", Longitude 103°10'31" NAD27

Land-surface elevation 4,054.00 feet above NGVD29

The depth of the well is 219 feet below land surface.

This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

This well is completed in the Cretaceous System (210CRCS) local aquifer.

#### Output formats

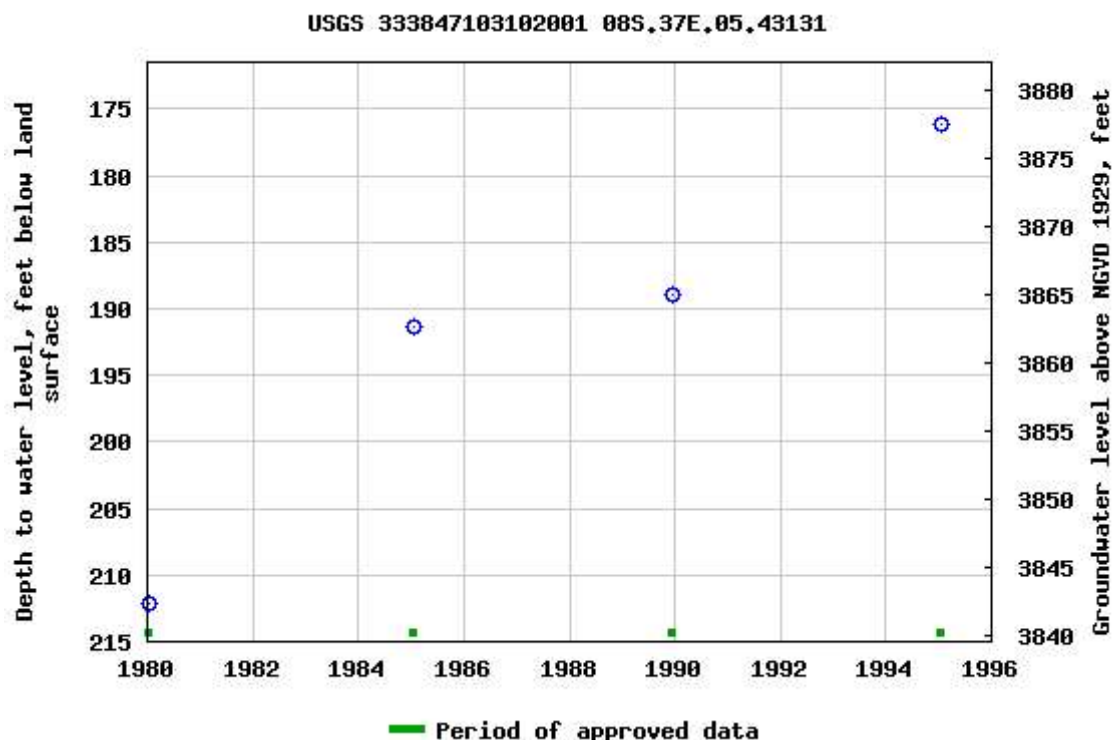
[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)





Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

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

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

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

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

Page Last Modified: 2022-10-13 11:50:56 EDT

0.56 0.51 nadww01





## **Appendix B**

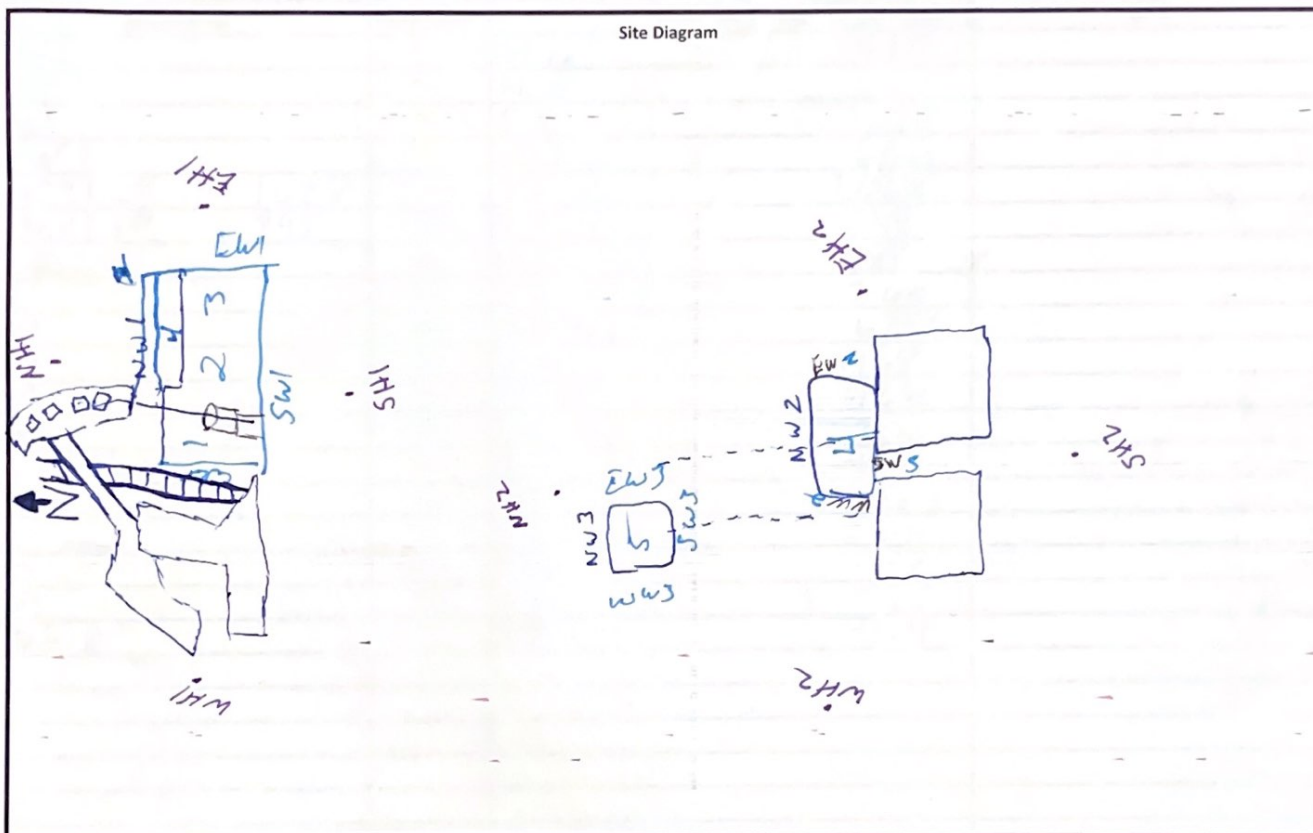
### **Field Data and Soil Profile Logs**



Date: 11/7/20

Longitude: -103.170198

### Site Diagram



Notes:

~Depth:

Yes

No

☒☐☒☐☒☐☒

□



Project Number: 16856      Latitude: 33.647478      Longitude: -103.170198

GPS Sample Points, Center of Comp Areas





## Soil Profile

Date: 11/7/22

Project: Federal H 002

Project Number: 16856 Latitude: 33.647478 Longitude: -103.170198

Depth (ft. bgs) 6"

1  
2  
3  
4  
5  
6  
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8  
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36  
37  
38  
39  
40

Caliche / Pad Material

Description

Red Sand

Red Sand

Red Sand

Red Sand



## **Appendix C**

### **Laboratory Analytical Reports**



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

---

December 27, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FEDERAL H002

Enclosed are the results of analyses for samples received by the laboratory on 12/22/22 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/22/2022	Sampling Date:	12/20/2022
Reported:	12/27/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NH 1 @ 1' (H226052-01)**

BTEX 8260B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	12/22/2022	ND	2.25	112	2.00	2.63	
Toluene*	<0.025	0.025	12/22/2022	ND	2.35	118	2.00	4.80	
Ethylbenzene*	<0.025	0.025	12/22/2022	ND	2.39	120	2.00	3.95	
Total Xylenes*	<0.075	0.075	12/22/2022	ND	7.48	125	6.00	3.27	
Total BTEX	<0.150	0.150	12/22/2022	ND					

Surrogate: Dibromofluoromethane 92.5 % 86.7-111

Surrogate: Toluene-d8 97.9 % 89.3-110

Surrogate: 4-Bromofluorobenzene 99.9 % 88.2-108

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/22/2022	ND	400	100	400	3.92	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2022	ND	191	95.7	200	0.176	
DRO >C10-C28*	<10.0	10.0	12/23/2022	ND	172	86.1	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	12/23/2022	ND					

Surrogate: 1-Chlorooctane 109 % 45.3-161

Surrogate: 1-Chlorooctadecane 121 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/22/2022	Sampling Date:	12/20/2022
Reported:	12/27/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NH 2 @ 1' (H226052-02)**

BTEx 8260B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	12/22/2022	ND	2.25	112	2.00	2.63		
Toluene*	<0.025	0.025	12/22/2022	ND	2.35	118	2.00	4.80		
Ethylbenzene*	<0.025	0.025	12/22/2022	ND	2.39	120	2.00	3.95		
Total Xylenes*	<0.075	0.075	12/22/2022	ND	7.48	125	6.00	3.27		
Total BTEX	<0.150	0.150	12/22/2022	ND						

Surrogate: Dibromofluoromethane 94.5 % 86.7-111  
 Surrogate: Toluene-d8 98.7 % 89.3-110  
 Surrogate: 4-Bromofluorobenzene 100 % 88.2-108

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	12/22/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2022	ND	191	95.7	200	0.176	
DRO >C10-C28*	<10.0	10.0	12/23/2022	ND	172	86.1	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	12/23/2022	ND					

Surrogate: 1-Chlorooctane 92.0 % 45.3-161  
 Surrogate: 1-Chlorooctadecane 103 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/22/2022	Sampling Date:	12/20/2022
Reported:	12/27/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: EH 1 @ 1' (H226052-03)**

BTX 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	12/22/2022	ND	2.25	112	2.00	2.63	
Toluene*	<0.025	0.025	12/22/2022	ND	2.35	118	2.00	4.80	
Ethylbenzene*	<0.025	0.025	12/22/2022	ND	2.39	120	2.00	3.95	
Total Xylenes*	<0.075	0.075	12/22/2022	ND	7.48	125	6.00	3.27	
Total BTX	<0.150	0.150	12/22/2022	ND					

Surrogate: Dibromofluoromethane 97.3 % 86.7-111

Surrogate: Toluene-d8 101 % 89.3-110

Surrogate: 4-Bromofluorobenzene 102 % 88.2-108

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/22/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2022	ND	191	95.7	200	0.176	
DRO >C10-C28*	<10.0	10.0	12/23/2022	ND	172	86.1	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	12/23/2022	ND					

Surrogate: 1-Chlorooctane 93.8 % 45.3-161

Surrogate: 1-Chlorooctadecane 104 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/22/2022	Sampling Date:	12/20/2022
Reported:	12/27/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: EH 2 @ 1' (H226052-04)**

BTEx 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	12/22/2022	ND	2.25	112	2.00	2.63	
Toluene*	<0.025	0.025	12/22/2022	ND	2.35	118	2.00	4.80	
Ethylbenzene*	<0.025	0.025	12/22/2022	ND	2.39	120	2.00	3.95	
Total Xylenes*	<0.075	0.075	12/22/2022	ND	7.48	125	6.00	3.27	
Total BTEX	<0.150	0.150	12/22/2022	ND					

Surrogate: Dibromofluoromethane 91.7 % 86.7-111  
 Surrogate: Toluene-d8 99.0 % 89.3-110  
 Surrogate: 4-Bromofluorobenzene 101 % 88.2-108

Chloride, SM4500Cl-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	12/22/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2022	ND	191	95.7	200	0.176	
DRO >C10-C28*	<10.0	10.0	12/23/2022	ND	172	86.1	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	12/23/2022	ND					

Surrogate: 1-Chlorooctane 117 % 45.3-161  
 Surrogate: 1-Chlorooctadecane 128 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/22/2022	Sampling Date:	12/20/2022
Reported:	12/27/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SH 1 @ 1' (H226052-05)**

BTX 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	12/22/2022	ND	2.25	112	2.00	2.63	
Toluene*	<0.025	0.025	12/22/2022	ND	2.35	118	2.00	4.80	
Ethylbenzene*	<0.025	0.025	12/22/2022	ND	2.39	120	2.00	3.95	
Total Xylenes*	<0.075	0.075	12/22/2022	ND	7.48	125	6.00	3.27	
Total BTX	<0.150	0.150	12/22/2022	ND					

Surrogate: Dibromofluoromethane 94.0 % 86.7-111  
 Surrogate: Toluene-d8 99.1 % 89.3-110  
 Surrogate: 4-Bromofluorobenzene 101 % 88.2-108

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/22/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2022	ND	191	95.7	200	0.176	
DRO >C10-C28*	<10.0	10.0	12/23/2022	ND	172	86.1	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	12/23/2022	ND					

Surrogate: 1-Chlorooctane 90.4 % 45.3-161  
 Surrogate: 1-Chlorooctadecane 101 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/22/2022	Sampling Date:	12/20/2022
Reported:	12/27/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SH 2 @ 1' (H226052-06)**

BTEx 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	12/22/2022	ND	2.25	112	2.00	2.63	
Toluene*	<0.025	0.025	12/22/2022	ND	2.35	118	2.00	4.80	
Ethylbenzene*	<0.025	0.025	12/22/2022	ND	2.39	120	2.00	3.95	
Total Xylenes*	<0.075	0.075	12/22/2022	ND	7.48	125	6.00	3.27	
Total BTEx	<0.150	0.150	12/22/2022	ND					

Surrogate: Dibromofluoromethane 96.3 % 86.7-111  
 Surrogate: Toluene-d8 99.6 % 89.3-110  
 Surrogate: 4-Bromofluorobenzene 101 % 88.2-108

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/22/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2022	ND	191	95.7	200	0.176	
DRO >C10-C28*	<10.0	10.0	12/23/2022	ND	172	86.1	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	12/23/2022	ND					

Surrogate: 1-Chlorooctane 87.1 % 45.3-161  
 Surrogate: 1-Chlorooctadecane 97.0 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/22/2022	Sampling Date:	12/20/2022
Reported:	12/27/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WH 1 @ 1' (H226052-07)**

BTX 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	12/22/2022	ND	2.25	112	2.00	2.63	
Toluene*	<0.025	0.025	12/22/2022	ND	2.35	118	2.00	4.80	
Ethylbenzene*	<0.025	0.025	12/22/2022	ND	2.39	120	2.00	3.95	
Total Xylenes*	<0.075	0.075	12/22/2022	ND	7.48	125	6.00	3.27	
Total BTX	<0.150	0.150	12/22/2022	ND					

Surrogate: Dibromofluoromethane 92.6 % 86.7-111  
 Surrogate: Toluene-d8 98.2 % 89.3-110  
 Surrogate: 4-Bromofluorobenzene 100 % 88.2-108

Chloride, SM4500Cl-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	12/22/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2022	ND	191	95.7	200	0.176	
DRO >C10-C28*	<10.0	10.0	12/23/2022	ND	172	86.1	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	12/23/2022	ND					

Surrogate: 1-Chlorooctane 120 % 45.3-161  
 Surrogate: 1-Chlorooctadecane 133 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/22/2022	Sampling Date:	12/20/2022
Reported:	12/27/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WH 2 @ 1' (H226052-08)**

BTX 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	12/22/2022	ND	2.25	112	2.00	2.63	
Toluene*	<0.025	0.025	12/22/2022	ND	2.35	118	2.00	4.80	
Ethylbenzene*	<0.025	0.025	12/22/2022	ND	2.39	120	2.00	3.95	
Total Xylenes*	<0.075	0.075	12/22/2022	ND	7.48	125	6.00	3.27	
Total BTX	<0.150	0.150	12/22/2022	ND					

Surrogate: Dibromofluoromethane 92.5 % 86.7-111  
 Surrogate: Toluene-d8 96.4 % 89.3-110  
 Surrogate: 4-Bromofluorobenzene 100 % 88.2-108

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/22/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/23/2022	ND	191	95.7	200	0.176	
DRO >C10-C28*	<10.0	10.0	12/23/2022	ND	172	86.1	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	12/23/2022	ND					

Surrogate: 1-Chlorooctane 87.0 % 45.3-161  
 Surrogate: 1-Chlorooctadecane 94.8 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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

---

Celey D. Keene, Lab Director/Quality Manager

**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>Project Manager:</b> Joel Lowry <b>Address:</b> 2617 W Marland <b>City:</b> Hobbs <b>State:</b> NM <b>Zip:</b> 88240 <b>Phone #:</b> (575) 264-9884 <b>Fax #:</b> <b>Project #:</b> 16856 <b>Project Owner:</b> H.L. Brown <b>Project Name:</b> Federal H 002 <b>Project Location:</b> Rural Roswell Co., NM <b>Sampler Name:</b> Miguel Ramirez <b>FOR LAB USE ONLY</b>				<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> H.L. Brown <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>				<b>ANALYSIS REQUEST</b>			
<b>Lab I.D.</b> H221052		<b>Sample I.D.</b>		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE TIME		MATRIX PRESERV SAMPLING		Chloride TPH (8015M) BTEX (8021B)			
1	NH101'	1									
2	NH201'	1									
3	EH101'	1									
4	EH201'	1									
5	SH101'	1									
6	SH201'	1									
7	WH101'	1									
8	WH201'	1									

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

<b>Relinquished By:</b> [Signature] Date: 3-22-23 Time: 1:45	<b>Received By:</b> [Signature] Date: 3-22-23 Time: 1:45	<b>REMARKS:</b> Rush Please
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Relinquished By: [Signature] Date: 3-22-23 Time: 1:45 Received By: [Signature] Date: 3-22-23 Time: 1:45

Delivered By: (Circle One) ☒ UPS ☐ Bus ☐ Other: -8:42/-9:02

Sample Condition: ☒ Cool ☐ Intact ☐ Yes ☐ No ☐ Yes ☐ No

CHECKED BY: [Signature] (Initials)

Please email results and copy of CoC to pm@etechenv.com.

FORM-006  
Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476



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

---

December 14, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FEDERAL H002

Enclosed are the results of analyses for samples received by the laboratory on 12/07/22 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/07/2022	Sampling Date:	12/07/2022
Reported:	12/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 1 C (H225766-01)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2022	ND	2.14	107	2.00	9.26	
Toluene*	<0.050	0.050	12/11/2022	ND	2.17	108	2.00	8.52	
Ethylbenzene*	<0.050	0.050	12/11/2022	ND	2.16	108	2.00	9.67	
Total Xylenes*	<0.150	0.150	12/11/2022	ND	6.75	112	6.00	11.4	
Total BTX	<0.300	0.300	12/11/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2022	ND	166	82.8	200	2.86	
DRO >C10-C28*	<10.0	10.0	12/09/2022	ND	165	82.7	200	6.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2022	ND					

Surrogate: 1-Chlorooctane 92.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 95.1 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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---

**Notes and Definitions**

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

---

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\*=Accredited Analyte

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

---

Celey D. Keene, Lab Director/Quality Manager



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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4



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

---

December 07, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FEDERAL H002

Enclosed are the results of analyses for samples received by the laboratory on 11/30/22 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/30/2022	Sampling Date:	11/22/2022
Reported:	12/07/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 2 B (H225612-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2022	ND	2.01	101	2.00	11.2	
Toluene*	<0.050	0.050	12/03/2022	ND	2.10	105	2.00	10.8	
Ethylbenzene*	<0.050	0.050	12/03/2022	ND	2.04	102	2.00	10.9	
Total Xylenes*	<0.150	0.150	12/03/2022	ND	6.25	104	6.00	11.1	
Total BTX	<0.300	0.300	12/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2022	ND	202	101	200	3.25	
DRO >C10-C28*	<10.0	10.0	12/02/2022	ND	222	111	200	3.73	
EXT DRO >C28-C36	<10.0	10.0	12/02/2022	ND					

Surrogate: 1-Chlorooctane 92.8 % 45.3-161

Surrogate: 1-Chlorooctadecane 93.9 % 46.3-178

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\*=Accredited Analyte

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



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/30/2022	Sampling Date:	11/22/2022
Reported:	12/07/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NW 1 B (H225612-02)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2022	ND	2.01	101	2.00	11.2	
Toluene*	<0.050	0.050	12/03/2022	ND	2.10	105	2.00	10.8	
Ethylbenzene*	<0.050	0.050	12/03/2022	ND	2.04	102	2.00	10.9	
Total Xylenes*	<0.150	0.150	12/03/2022	ND	6.25	104	6.00	11.1	
Total BTEX	<0.300	0.300	12/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2022	ND	202	101	200	3.25	
DRO >C10-C28*	<10.0	10.0	12/03/2022	ND	222	111	200	3.73	
EXT DRO >C28-C36	<10.0	10.0	12/03/2022	ND					

Surrogate: 1-Chlorooctane 105 % 45.3-161

Surrogate: 1-Chlorooctadecane 107 % 46.3-178

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\*=Accredited Analyte

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



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/30/2022	Sampling Date:	11/22/2022
Reported:	12/07/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 2 @ 4' (H225612-03)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2022	ND	2.01	101	2.00	11.2	
Toluene*	<0.050	0.050	12/03/2022	ND	2.10	105	2.00	10.8	
Ethylbenzene*	<0.050	0.050	12/03/2022	ND	2.04	102	2.00	10.9	
Total Xylenes*	<0.150	0.150	12/03/2022	ND	6.25	104	6.00	11.1	
Total BTEX	<0.300	0.300	12/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2022	ND	202	101	200	3.25	
DRO >C10-C28*	<10.0	10.0	12/03/2022	ND	222	111	200	3.73	
EXT DRO >C28-C36	<10.0	10.0	12/03/2022	ND					

Surrogate: 1-Chlorooctane 113 % 45.3-161

Surrogate: 1-Chlorooctadecane 113 % 46.3-178

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\*=Accredited Analyte

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



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/30/2022	Sampling Date:	11/22/2022
Reported:	12/07/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 1 B (H225612-04)**

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	12/03/2022	ND	2.01	101	2.00	11.2	
<b>Toluene*</b>	<b>0.690</b>	0.200	12/03/2022	ND	2.10	105	2.00	10.8	GC-NC1
<b>Ethylbenzene*</b>	<b>1.90</b>	0.200	12/03/2022	ND	2.04	102	2.00	10.9	
<b>Total Xylenes*</b>	<b>22.1</b>	0.600	12/03/2022	ND	6.25	104	6.00	11.1	
<b>Total BTX</b>	<b>24.7</b>	1.20	12/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 291 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>1010</b>	10.0	12/03/2022	ND	202	101	200	3.25	
<b>DRO &gt;C10-C28*</b>	<b>5270</b>	10.0	12/03/2022	ND	222	111	200	3.73	
<b>EXT DRO &gt;C28-C36</b>	<b>481</b>	10.0	12/03/2022	ND					

Surrogate: 1-Chlorooctane 201 % 45.3-161

Surrogate: 1-Chlorooctadecane 204 % 46.3-178

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\*=Accredited Analyte

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





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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/30/2022	Sampling Date:	11/22/2022
Reported:	12/07/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 1 @ 4' (H225612-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2022	ND	2.01	101	2.00	11.2	
Toluene*	<0.050	0.050	12/03/2022	ND	2.10	105	2.00	10.8	
Ethylbenzene*	<0.050	0.050	12/03/2022	ND	2.04	102	2.00	10.9	
Total Xylenes*	<0.150	0.150	12/03/2022	ND	6.25	104	6.00	11.1	
Total BTEX	<0.300	0.300	12/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2022	ND	202	101	200	3.25	
DRO >C10-C28*	<10.0	10.0	12/03/2022	ND	222	111	200	3.73	
EXT DRO >C28-C36	<10.0	10.0	12/03/2022	ND					

Surrogate: 1-Chlorooctane 102 % 45.3-161

Surrogate: 1-Chlorooctadecane 102 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/30/2022	Sampling Date:	11/22/2022
Reported:	12/07/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 4 @ 4' (H225612-06)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2022	ND	2.01	101	2.00	11.2	
Toluene*	<0.050	0.050	12/03/2022	ND	2.10	105	2.00	10.8	
Ethylbenzene*	<0.050	0.050	12/03/2022	ND	2.04	102	2.00	10.9	
Total Xylenes*	<0.150	0.150	12/03/2022	ND	6.25	104	6.00	11.1	
Total BTEX	<0.300	0.300	12/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2022	ND	202	101	200	3.25	
DRO >C10-C28*	<10.0	10.0	12/03/2022	ND	222	111	200	3.73	
EXT DRO >C28-C36	<10.0	10.0	12/03/2022	ND					

Surrogate: 1-Chlorooctane 108 % 45.3-161

Surrogate: 1-Chlorooctadecane 107 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/30/2022	Sampling Date:	11/22/2022
Reported:	12/07/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 6 @ 3' (H225612-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/03/2022	ND	2.01	101	2.00	11.2		
Toluene*	<0.050	0.050	12/03/2022	ND	2.10	105	2.00	10.8		
Ethylbenzene*	<0.050	0.050	12/03/2022	ND	2.04	102	2.00	10.9		
Total Xylenes*	<0.150	0.150	12/03/2022	ND	6.25	104	6.00	11.1		
Total BTEX	<0.300	0.300	12/03/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2022	ND	202	101	200	3.25	
<b>DRO &gt;C10-C28*</b>	<b>31.5</b>	10.0	12/03/2022	ND	222	111	200	3.73	
EXT DRO >C28-C36	<10.0	10.0	12/03/2022	ND					

Surrogate: 1-Chlorooctane 99.9 % 45.3-161

Surrogate: 1-Chlorooctadecane 101 % 46.3-178

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



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/30/2022	Sampling Date:	11/22/2022
Reported:	12/07/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: EW 2 B (H225612-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/03/2022	ND	2.01	101	2.00	11.2		
Toluene*	<0.050	0.050	12/03/2022	ND	2.10	105	2.00	10.8		
Ethylbenzene*	<0.050	0.050	12/03/2022	ND	2.04	102	2.00	10.9		
Total Xylenes*	<0.150	0.150	12/03/2022	ND	6.25	104	6.00	11.1		
Total BTEX	<0.300	0.300	12/03/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2022	ND	202	101	200	3.25	
DRO >C10-C28*	<10.0	10.0	12/03/2022	ND	222	111	200	3.73	
EXT DRO >C28-C36	<10.0	10.0	12/03/2022	ND					

Surrogate: 1-Chlorooctane 107 % 45.3-161

Surrogate: 1-Chlorooctadecane 107 % 46.3-178

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





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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/30/2022	Sampling Date:	11/22/2022
Reported:	12/07/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 3 B (H225612-09)**

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2022	ND	2.01	101	2.00	11.2	
Toluene*	<b>1.55</b>	0.050	12/03/2022	ND	2.10	105	2.00	10.8	GC-NC1
Ethylbenzene*	<b>2.37</b>	0.050	12/03/2022	ND	2.04	102	2.00	10.9	
Total Xylenes*	<b>17.6</b>	0.150	12/03/2022	ND	6.25	104	6.00	11.1	
Total BTX	<b>21.6</b>	0.300	12/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 288 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>61.2</b>	10.0	12/03/2022	ND	202	101	200	3.25	
DRO >C10-C28*	<b>223</b>	10.0	12/03/2022	ND	222	111	200	3.73	
EXT DRO >C28-C36	<b>13.1</b>	10.0	12/03/2022	ND					

Surrogate: 1-Chlorooctane 105 % 45.3-161

Surrogate: 1-Chlorooctadecane 107 % 46.3-178

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



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/30/2022	Sampling Date:	11/22/2022
Reported:	12/07/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	Cool & Intact
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WW 1 B (H225612-10)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2022	ND	2.01	101	2.00	11.2	
Toluene*	<0.050	0.050	12/03/2022	ND	2.10	105	2.00	10.8	
Ethylbenzene*	<0.050	0.050	12/03/2022	ND	2.04	102	2.00	10.9	
Total Xylenes*	<0.150	0.150	12/03/2022	ND	6.25	104	6.00	11.1	
Total BTEX	<0.300	0.300	12/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2022	ND	202	101	200	3.25	
DRO >C10-C28*	<10.0	10.0	12/03/2022	ND	222	111	200	3.73	
EXT DRO >C28-C36	<10.0	10.0	12/03/2022	ND					

Surrogate: 1-Chlorooctane 73.5 % 45.3-161

Surrogate: 1-Chlorooctadecane 73.8 % 46.3-178

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



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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

---

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



# 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>Project Manager:</b> Joel Leary <b>Address:</b> 2617 W Marland <b>City:</b> Hobbs <b>State:</b> NM <b>Zip:</b> 88240 <b>Phone #:</b> (575) 264-9884 <b>Fax #:</b> <b>Project #:</b> 16851 <b>Project Owner:</b> H.L. Brown <b>Project Name:</b> Federal H 002 <b>Project Location:</b> Rura 1 Reserve Lt Co, NM <b>Sample Name:</b> Rura 1 Reserve Lt Co, NM <b>FOR LAB USE ONLY</b>		<b>BILL TO</b> <b>P.O. #:</b> 1 <b>Company:</b> H.L. Brown <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>	
<b>Lab I.D.</b> <b>Sample I.D.</b>		<b>ANALYSIS REQUEST</b>	
<b>PLEASE NOTE:</b> Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable services. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		<b>Chloride</b> <b>TPH (8015M)</b> <b>BTEX (8021B)</b>	
<b>Relinquished By:</b> <i>Alena</i> <b>Date:</b> 11-30-22 <b>Time:</b> 1:25 <b>Received By:</b> <i>Monica Delaney</i> <b>Date:</b> 11-30-22 <b>Time:</b>		<b>REMARKS:</b> Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: Please email results and copy of CoC to pm@etechenv.com.	
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other: 4.8e/4.2e #113 FORM-006 Revision 1.0		<b>Sample Condition</b> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Checked By: <i>VB</i>	

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476



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

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November 14, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FEDERAL H002

Enclosed are the results of analyses for samples received by the laboratory on 11/07/22 15:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 1 @ 2' (H225249-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/11/2022	ND	1.90	94.9	2.00	4.23	
Toluene*	<0.050	0.050	11/11/2022	ND	2.04	102	2.00	3.77	
Ethylbenzene*	<b>0.120</b>	0.050	11/11/2022	ND	1.99	99.6	2.00	3.73	
Total Xylenes*	<b>0.645</b>	0.150	11/11/2022	ND	6.06	101	6.00	3.65	
Total BTX	<b>0.765</b>	0.300	11/11/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>592</b>	16.0	11/08/2022	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>36.8</b>	10.0	11/08/2022	ND	202	101	200	3.79	
DRO >C10-C28*	<b>1210</b>	10.0	11/08/2022	ND	195	97.5	200	2.83	QM-07
EXT DRO >C28-C36	<b>94.5</b>	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane 89.3 % 45.3-161

Surrogate: 1-Chlorooctadecane 131 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 2 @ 3' (H225249-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/11/2022	ND	1.90	94.9	2.00	4.23		
Toluene*	<0.050	0.050	11/11/2022	ND	2.04	102	2.00	3.77		
Ethylbenzene*	0.165	0.050	11/11/2022	ND	1.99	99.6	2.00	3.73		
Total Xylenes*	1.69	0.150	11/11/2022	ND	6.06	101	6.00	3.65		
Total BTEx	1.85	0.300	11/11/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 137 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	768	16.0	11/08/2022	ND	384	96.0	400	4.08		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	108	50.0	11/09/2022	ND	202	101	200	3.79	
DRO >C10-C28*	3340	50.0	11/09/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	427	50.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 119 % 45.3-161

Surrogate: 1-Chlorooctadecane 212 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 3 @ 2' (H225249-03)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/11/2022	ND	1.90	94.9	2.00	4.23		
Toluene*	<0.050	0.050	11/11/2022	ND	2.04	102	2.00	3.77		
Ethylbenzene*	<0.050	0.050	11/11/2022	ND	1.99	99.6	2.00	3.73		
Total Xylenes*	<0.150	0.150	11/11/2022	ND	6.06	101	6.00	3.65		
Total BTX	<0.300	0.300	11/11/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 87.9 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	11/08/2022	ND	384	96.0	400	4.08		

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	11/08/2022	ND	202	101	200	3.79	
DRO >C10-C28*	<10.0	10.0	11/08/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane 111 % 45.3-161

Surrogate: 1-Chlorooctadecane 121 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 4 @ 2' (H225249-04)**

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.205</b>	0.050	11/11/2022	ND	1.90	94.9	2.00	4.23	
<b>Toluene*</b>	<b>5.17</b>	0.050	11/11/2022	ND	2.04	102	2.00	3.77	
<b>Ethylbenzene*</b>	<b>4.58</b>	0.050	11/11/2022	ND	1.99	99.6	2.00	3.73	
<b>Total Xylenes*</b>	<b>24.9</b>	0.150	11/11/2022	ND	6.06	101	6.00	3.65	
<b>Total BTX</b>	<b>34.8</b>	0.300	11/11/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 289 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	11/08/2022	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>614</b>	10.0	11/08/2022	ND	202	101	200	3.79	
<b>DRO &gt;C10-C28*</b>	<b>1370</b>	10.0	11/08/2022	ND	195	97.5	200	2.83	
<b>EXT DRO &gt;C28-C36</b>	<b>86.6</b>	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane 190 % 45.3-161

Surrogate: 1-Chlorooctadecane 136 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NW 1 (H225249-05)**

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	11/12/2022	ND	1.90	94.9	2.00	4.23	
<b>Toluene*</b>	<b>2.48</b>	0.200	11/12/2022	ND	2.04	102	2.00	3.77	
Ethylbenzene*	<0.200	0.200	11/12/2022	ND	1.99	99.6	2.00	3.73	
<b>Total Xylenes*</b>	<b>30.5</b>	0.600	11/12/2022	ND	6.06	101	6.00	3.65	GC-NC1
<b>Total BTX</b>	<b>33.0</b>	1.20	11/12/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 272 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>400</b>	16.0	11/08/2022	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>1910</b>	50.0	11/09/2022	ND	202	101	200	3.79	
<b>DRO &gt;C10-C28*</b>	<b>7440</b>	50.0	11/09/2022	ND	195	97.5	200	2.83	
<b>EXT DRO &gt;C28-C36</b>	<b>346</b>	50.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 371 % 45.3-161

Surrogate: 1-Chlorooctadecane 162 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: EW 1 (H225249-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/11/2022	ND	1.90	94.9	2.00	4.23		
Toluene*	<0.050	0.050	11/11/2022	ND	2.04	102	2.00	3.77		
Ethylbenzene*	<0.050	0.050	11/11/2022	ND	1.99	99.6	2.00	3.73		
<b>Total Xylenes*</b>	<b>0.179</b>	0.150	11/11/2022	ND	6.06	101	6.00	3.65		
Total BTEx	<0.300	0.300	11/11/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	768	16.0	11/08/2022	ND	384	96.0	400	4.08		

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	11/08/2022	ND	202	101	200	3.79	
DRO >C10-C28*	<10.0	10.0	11/08/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane 101 % 45.3-161

Surrogate: 1-Chlorooctadecane 111 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 1 (H225249-07)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	11/12/2022	ND	1.90	94.9	2.00	4.23	
Toluene*	<b>4.30</b>	0.500	11/12/2022	ND	2.04	102	2.00	3.77	
Ethylbenzene*	<b>10.7</b>	0.500	11/12/2022	ND	1.99	99.6	2.00	3.73	
Total Xylenes*	<b>72.6</b>	1.50	11/12/2022	ND	6.06	101	6.00	3.65	
Total BTEX	<b>87.6</b>	3.00	11/12/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 168 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>592</b>	16.0	11/08/2022	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>1360</b>	10.0	11/08/2022	ND	202	101	200	3.79	
DRO >C10-C28*	<b>6300</b>	10.0	11/08/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	<b>655</b>	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane 164 % 45.3-161

Surrogate: 1-Chlorooctadecane 171 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WW 1 (H225249-08)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/11/2022	ND	1.90	94.9	2.00	4.23		
Toluene*	<0.050	0.050	11/11/2022	ND	2.04	102	2.00	3.77		
Ethylbenzene*	<0.050	0.050	11/11/2022	ND	1.99	99.6	2.00	3.73		
Total Xylenes*	<0.150	0.150	11/11/2022	ND	6.06	101	6.00	3.65		
Total BTEx	<0.300	0.300	11/11/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	11/08/2022	ND	384	96.0	400	4.08		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	11/09/2022	ND	202	101	200	3.79	
DRO >C10-C28*	1330	50.0	11/09/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	298	50.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 91.9 % 45.3-161

Surrogate: 1-Chlorooctadecane 142 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 5 @ 2' (H225249-09)**

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/11/2022	ND	1.90	94.9	2.00	4.23	
Toluene*	0.260	0.050	11/11/2022	ND	2.04	102	2.00	3.77	
Ethylbenzene*	0.667	0.050	11/11/2022	ND	1.99	99.6	2.00	3.73	
Total Xylenes*	7.19	0.150	11/11/2022	ND	6.06	101	6.00	3.65	
Total BTX	8.11	0.300	11/11/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 210 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/08/2022	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	125	10.0	11/09/2022	ND	202	101	200	3.79	
DRO >C10-C28*	728	10.0	11/09/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	81.3	10.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 133 % 45.3-161

Surrogate: 1-Chlorooctadecane 133 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NW 2 (H225249-10)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/11/2022	ND	1.90	94.9	2.00	4.23		
Toluene*	<0.050	0.050	11/11/2022	ND	2.04	102	2.00	3.77		
Ethylbenzene*	<0.050	0.050	11/11/2022	ND	1.99	99.6	2.00	3.73		
Total Xylenes*	<0.150	0.150	11/11/2022	ND	6.06	101	6.00	3.65		
Total BTEx	<0.300	0.300	11/11/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.0 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	11/08/2022	ND	384	96.0	400	4.08		

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	11/09/2022	ND	202	101	200	3.79	
DRO >C10-C28*	201	10.0	11/09/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	36.7	10.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 92.0 % 45.3-161

Surrogate: 1-Chlorooctadecane 107 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: EW 2 (H225249-11)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.449</b>	0.200	11/12/2022	ND	1.90	94.9	2.00	4.23	
<b>Toluene*</b>	<b>6.23</b>	0.200	11/12/2022	ND	2.04	102	2.00	3.77	
<b>Ethylbenzene*</b>	<b>6.01</b>	0.200	11/12/2022	ND	1.99	99.6	2.00	3.73	
<b>Total Xylenes*</b>	<b>33.9</b>	0.600	11/12/2022	ND	6.06	101	6.00	3.65	
<b>Total BTEx</b>	<b>46.6</b>	1.20	11/12/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 182 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	11/08/2022	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>1020</b>	50.0	11/09/2022	ND	202	101	200	3.79	
<b>DRO &gt;C10-C28*</b>	<b>15900</b>	50.0	11/09/2022	ND	195	97.5	200	2.83	
<b>EXT DRO &gt;C28-C36</b>	<b>1930</b>	50.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 162 % 45.3-161

Surrogate: 1-Chlorooctadecane 358 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 2 (H225249-12)**

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>2.55</b>	0.200	11/12/2022	ND	1.90	94.9	2.00	4.23	
<b>Toluene*</b>	<b>18.2</b>	0.200	11/12/2022	ND	2.04	102	2.00	3.77	
<b>Ethylbenzene*</b>	<b>12.9</b>	0.200	11/12/2022	ND	1.99	99.6	2.00	3.73	
<b>Total Xylenes*</b>	<b>67.5</b>	0.600	11/12/2022	ND	6.06	101	6.00	3.65	
<b>Total BTX</b>	<b>101</b>	1.20	11/12/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 212 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	11/08/2022	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>1650</b>	50.0	11/09/2022	ND	202	101	200	3.79	
<b>DRO &gt;C10-C28*</b>	<b>5540</b>	50.0	11/09/2022	ND	195	97.5	200	2.83	
<b>EXT DRO &gt;C28-C36</b>	<b>544</b>	50.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 310 % 45.3-161

Surrogate: 1-Chlorooctadecane 386 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WW 2 (H225249-13)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2022	ND	1.94	96.9	2.00	5.61	
Toluene*	<0.050	0.050	11/08/2022	ND	2.09	105	2.00	6.43	
Ethylbenzene*	0.059	0.050	11/08/2022	ND	2.05	102	2.00	7.40	
Total Xylenes*	0.263	0.150	11/08/2022	ND	6.23	104	6.00	7.42	
Total BTEX	0.321	0.300	11/08/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	11/08/2022	ND	384	96.0	400	4.08		

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	11/09/2022	ND	202	101	200	3.79	
DRO >C10-C28*	73.2	10.0	11/09/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 83.3 % 45.3-161

Surrogate: 1-Chlorooctadecane 90.7 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NW 3 (H225249-14)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/08/2022	ND	1.94	96.9	2.00	5.61		
Toluene*	<0.050	0.050	11/08/2022	ND	2.09	105	2.00	6.43		
Ethylbenzene*	<0.050	0.050	11/08/2022	ND	2.05	102	2.00	7.40		
Total Xylenes*	<0.150	0.150	11/08/2022	ND	6.23	104	6.00	7.42		
Total BTEx	<0.300	0.300	11/08/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.6 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	11/08/2022	ND	384	96.0	400	4.08		

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	11/09/2022	ND	202	101	200	3.79	
DRO >C10-C28*	12.6	10.0	11/09/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 84.4 % 45.3-161

Surrogate: 1-Chlorooctadecane 92.9 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: EW 3 (H225249-15)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/08/2022	ND	1.94	96.9	2.00	5.61		
Toluene*	<0.050	0.050	11/08/2022	ND	2.09	105	2.00	6.43		
Ethylbenzene*	<0.050	0.050	11/08/2022	ND	2.05	102	2.00	7.40		
Total Xylenes*	<0.150	0.150	11/08/2022	ND	6.23	104	6.00	7.42		
Total BTEx	<0.300	0.300	11/08/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 88.9 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	11/08/2022	ND	384	96.0	400	4.08		

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	11/09/2022	ND	202	101	200	3.79	
DRO >C10-C28*	<10.0	10.0	11/09/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 95.1 % 45.3-161

Surrogate: 1-Chlorooctadecane 106 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 3 (H225249-16)**

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>1.17</b>	0.500	11/08/2022	ND	1.94	96.9	2.00	5.61	
<b>Toluene*</b>	<b>22.0</b>	0.500	11/08/2022	ND	2.09	105	2.00	6.43	
<b>Ethylbenzene*</b>	<b>18.8</b>	0.500	11/08/2022	ND	2.05	102	2.00	7.40	
<b>Total Xylenes*</b>	<b>120</b>	1.50	11/08/2022	ND	6.23	104	6.00	7.42	
<b>Total BTX</b>	<b>162</b>	3.00	11/08/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 168 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/08/2022	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>2370</b>	10.0	11/09/2022	ND	202	101	200	3.79	
<b>DRO &gt;C10-C28*</b>	<b>5950</b>	10.0	11/09/2022	ND	195	97.5	200	2.83	
<b>EXT DRO &gt;C28-C36</b>	<b>436</b>	10.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 472 % 45.3-161

Surrogate: 1-Chlorooctadecane 331 % 46.3-178

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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  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/07/2022	Sampling Date:	11/07/2022
Reported:	11/14/2022	Sampling Type:	Soil
Project Name:	FEDERAL H002	Sampling Condition:	** (See Notes)
Project Number:	16856	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WW 3 (H225249-17)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/08/2022	ND	1.94	96.9	2.00	5.61		
Toluene*	<0.050	0.050	11/08/2022	ND	2.09	105	2.00	6.43		
Ethylbenzene*	<0.050	0.050	11/08/2022	ND	2.05	102	2.00	7.40		
Total Xylenes*	<0.150	0.150	11/08/2022	ND	6.23	104	6.00	7.42		
Total BTEx	<0.300	0.300	11/08/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.4 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	11/08/2022	ND	416	104	400	3.92		

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	11/09/2022	ND	202	101	200	3.79	
DRO >C10-C28*	<10.0	10.0	11/09/2022	ND	195	97.5	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	11/09/2022	ND					

Surrogate: 1-Chlorooctane 103 % 45.3-161

Surrogate: 1-Chlorooctadecane 113 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



1/2

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)





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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2/2

## BILL TO

## ANALYSIS REQUEST

Company Name: Etech Environmental & Safety Solutions

Project Manager: Jed Lowry

Address: 2617 W. Marland

City: Hobbs

State: NM Zip: 88240

Phone #:

Fax #:

Project #:

Project Owner: H.L. Brown

Project Name: Federal 4602

Project Location: Pural Roosevelt Co, NM

Sampler Name:

P.O. #:

Company: H.L. Brown

Attn:

Address:

City:

State:

Zip:

Phone #:

Fax #:

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H225249

11

SW2

12

SW2

13

SW2

14

SW2

15

SW2

16

SW2

17

SW2

18

SW2

19

SW2

20

SW2

21

SW2

22

SW2

23

SW2

24

SW2

25

SW2

26

SW2

27

SW2



## **Appendix D**

### **Photographic Log**

## Photographic Log

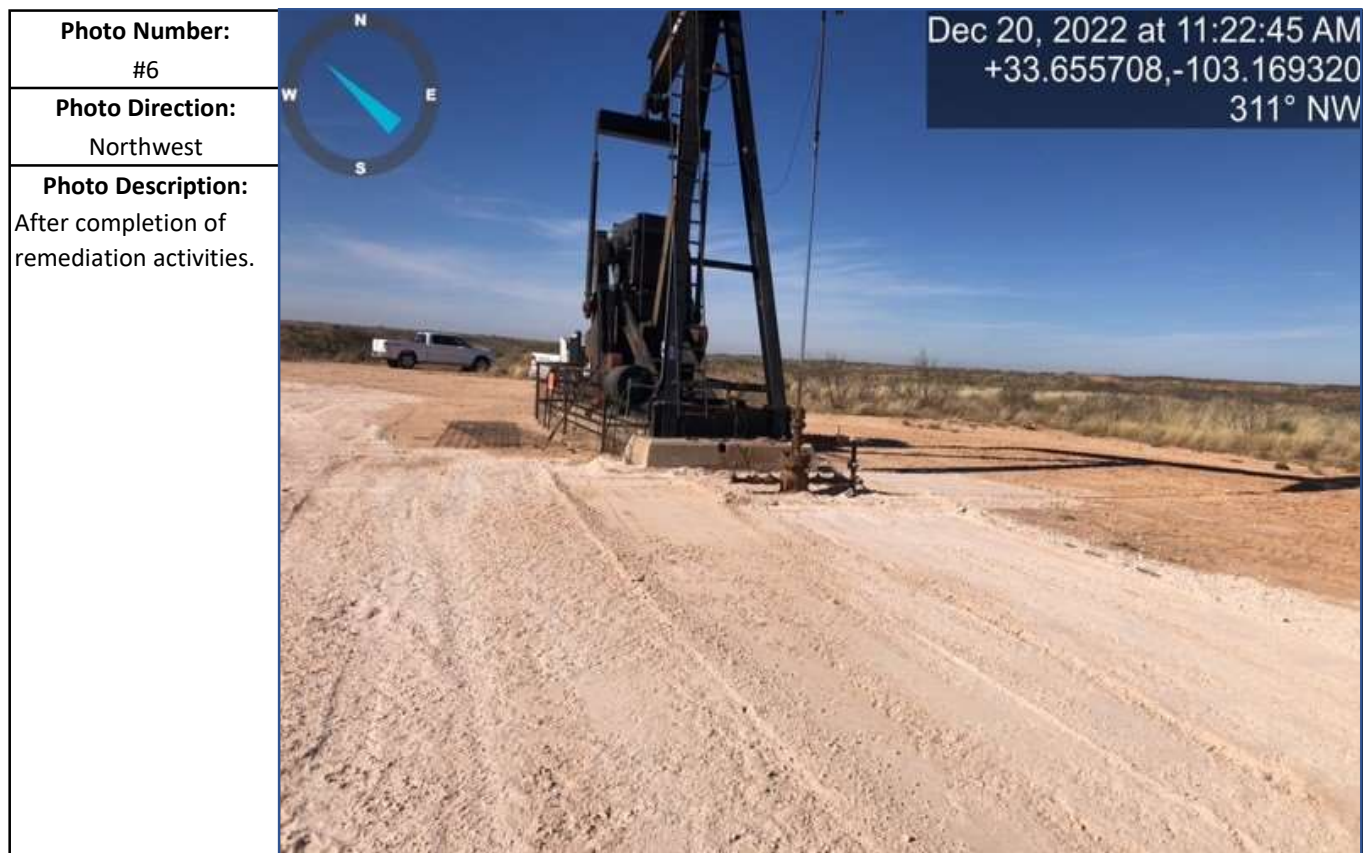


## Photographic Log





## Photographic Log



**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 202108

CONDITIONS

Operator: H L BROWN OPERATING, LLC P.O. Box 2237 Midland, TX 79702	OGRID: 213179
	Action Number: 202108
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Please implement 19.15.29.13 NMAC when completing P&A.	5/4/2023