State of New Mexico
Oil Conservation Division

Incident ID	nAPP2227233744
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?	180.5 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ 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)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ 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?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☑ 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
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2227233744
District RP	
Facility ID	
Application ID	

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 Czarnikow Title: Production Tech

Signature: Risa Czarnikow Date: 3-29-23

email: rczarnikow@helmsoil.com Telephone: (432) 688-3727

OCD Only

Received by: Jocelyn Harimon Date: 03/30/2023

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Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2227233744
District RP	
Facility ID	
Application ID	

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 Czarnikow Title: Production Tech

Signature: Risa Czarnikow Date: 3-29-23

email: rczarnikow@helmsoil.com Telephone: (432) 688-3727

OCD Only

Received by: Jocelyn Harimon Date: 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 Nobui Date: 05/04/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

Amended Remediation Summary and Soil Closure Request

H.L. Brown Operating, LLC
Federal H 001
Roosevelt County, New Mexico
Unit Letter A, Section 5, Township 8 South, Range 37 East
Latitude 33.647455 North, Longitude 103.170203 West
NMOCD Reference No. nAPP2227233744

Prepared By:

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

Zach Conder

Ben J .Arguijo

ETECH Environmental & Safety Solutions, Inc.

Midland • San Antonio • Lubbock • Hobbs • Lafayette

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of H.L. Brown Operating, LLC, has prepared this Remediation Summary and Soil Closure Request for the release site known as the Federal H 001 (henceforth, "Site"). Details of the release are summarized below:

Location of Release Source

Latitude: 33.647455 Longitude: -103.170203

Provided GPS are in WGS84 format.

Site Name:	Federal H 001	Site Type:	Well Head
Date Release Discovered:	9/7/2022	API # (if applicable):	30-041-20425

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

Surface Owner: [ ] State [ ] Federal [ ] Tribal [X] Private (Name KIZER MACK LIFE ESTATE)

Nature and Volume of Release

[X] Crude Oil	Volume Released (bbls) 5 bbls	Volume Recovered (bbls) 0 bbls
[ ] Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	[ ] Yes [ ] No [ ] N/A
[ ] Condensate	Volume Released (bbls)	Volume Recovered (bbls)
[ ] Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
[ ] Other (describe)	Volume/Weight Released	Volume/Weight Recovered

Cause of Release:
Historical release found during site inspection.

Initial Response

- [X] The source of the release has been stopped.
- [X] The impacted area has been secured to protect human health and the environment.
- [X] Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
- [X] 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?	180.5 Feet
Did the release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production or storage site?	☐ Yes ☒ 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*
180.5 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 3, 2022, remediation activities commenced at the Site. In accordance with the NMOCD, 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 eight (8) confirmation soil samples (FL 1 @ 1', FL 2 @ 1', FL 3 @ 1', FL 4 @ 1', NW 1, EW 1, SW 1 and WW 1). 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 four (4) horizontal delineation soil samples (NH 1 @ 1', EH 1 @ 1', SH 1 @ 1' and WH 1 @ 1') 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 TPH and chloride. Laboratory analytical results indicated TPH, and chloride concentrations were below the NMOCD Closure Criteria and NMOCD Reclamation Standards in all of the submitted soil samples.

A site and sample location map is provided as Figure 3. 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. A photographic log of remediation activities is provided as Appendix D.

The final dimensions of the excavated area were approximately thirty-seven (37) feet in length, and ranged from eleven (11) to nineteen (19) feet in width and one (1) foot in depth. During the course of remediation activities, approximately sixty (60) 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.

6.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with applicable NMOCD Regulations. Impacted soil affected above the NMOCD Closure Criteria 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.

Based on laboratory analytical results and field activities conducted to date, Etech recommends H.L. Brown Operating, LLC, provide copies of this Remediation Summary and Soil Closure Request to the appropriate agencies and request closure be granted to the Federal H 001 Site.

7.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this 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.

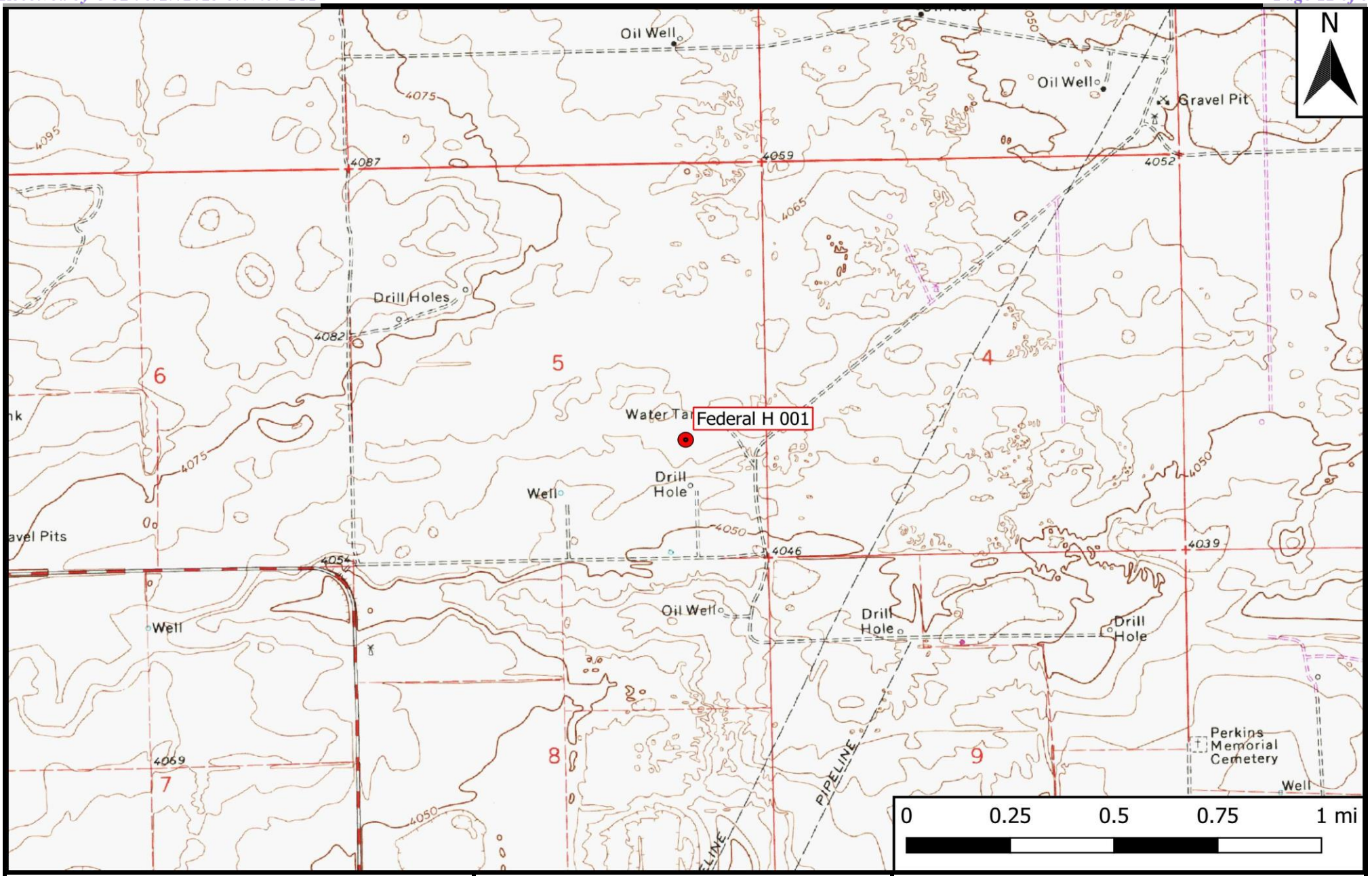
8.0 DISTRIBUTION

H.L. Brown Operating, LLC
300 West Louisiana
Midland, TX 79702-2237

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

(Electronic Submission)

Figure 1
Topographic Map



Legend

Site Location

Figure 1

Topographic Map

H. L. Brown Operating LLC

Federal H 001

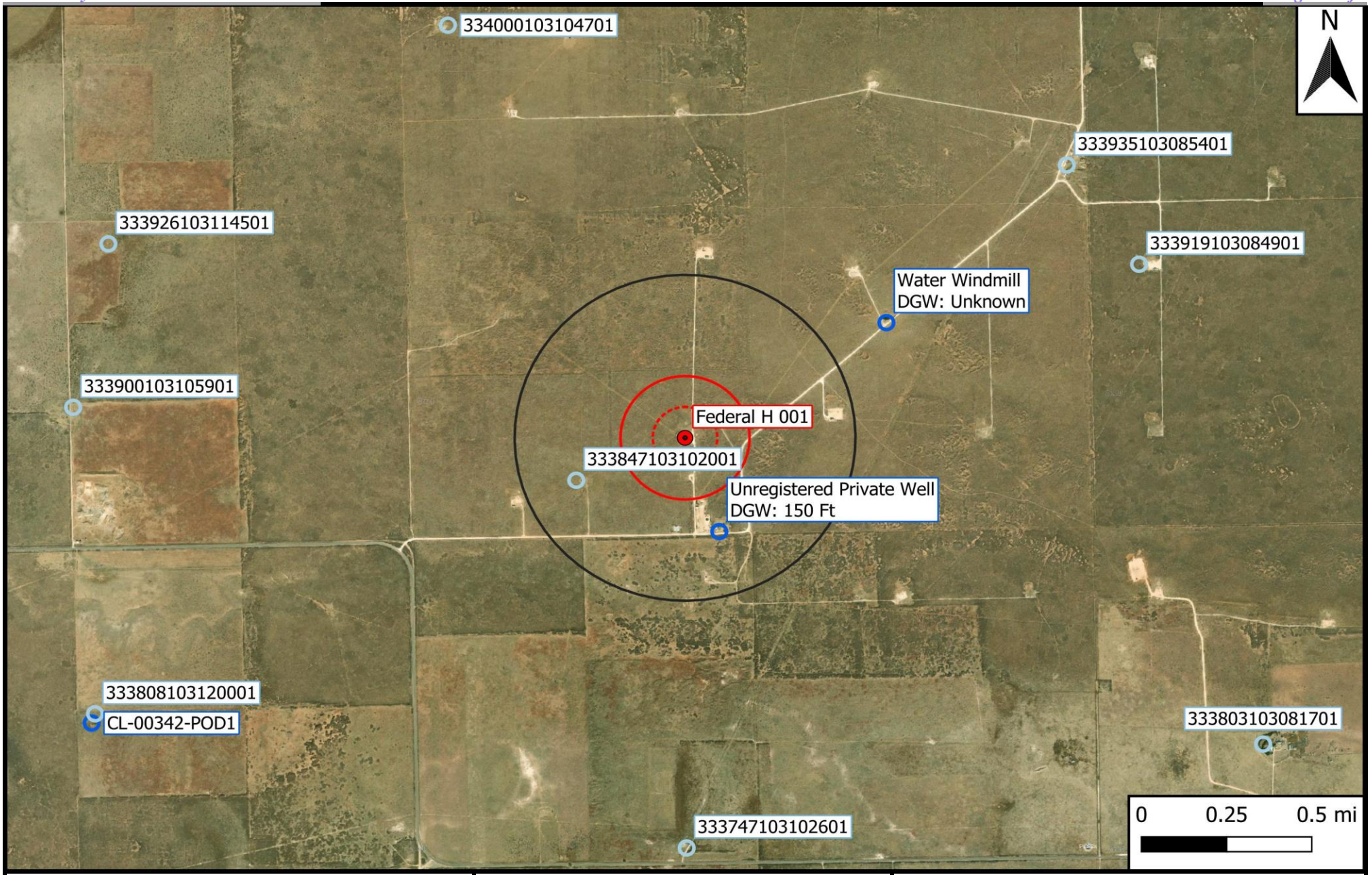
GPS: 33.647455, -103.170203

Roosevelt County

ETECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jk Date: 10/13/22

Figure 2
Aerial Proximity Map



Legend

- Site Location
- Well - NMOSE
- Well - USGS
- Potash Mine Workings
- Medium/High Karst
- 500 Ft Radius
- 1000 Ft Radius
- 0.5 Mi Radius
- 1% Annual Flood Chance
- Lake/Freshwater Pond
- Emergent/Forested Wetlands
- Riverine

Figure 2

Aerial Proximity Map

H.L. Brown Operating, LLC

Federal H 001

GPS: 33.647455, -103.170203

Roosevelt County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jk Date: 12/15/22

Figure 3
Site and Sample Location Map

Legend:

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

Figure 3

Site and Sample Location Map

H.L. Brown Operating, LLC

Federal H 001

GPS: 33.647455, -103.170203

Roosevelt County

eTECH Environmental & Safety Solutions, Inc.

Drafted: ZPC Checked: JWL Date: 12/16/22

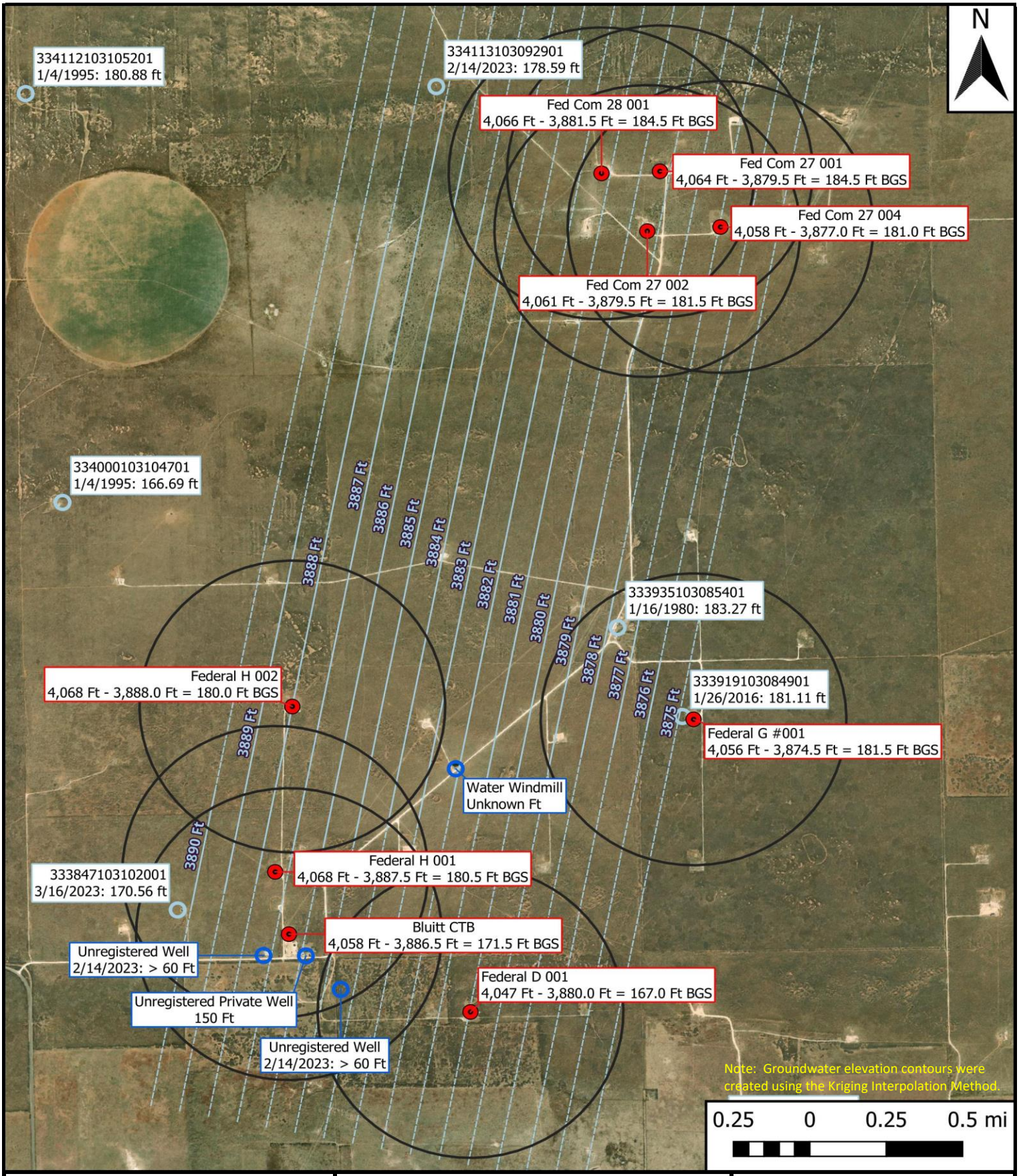
Table 1
Concentrations of BTEX, TPH, and Chloride in Soil

Table 1
Concentrations of BTEX, TPH, and Chloride in Soil
H.L. Brown Operating, LLC
Federal H 001
NMOCD Ref. #: nAPP2227233744

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_6-C_{10} (mg/kg)**	**DRO C_{10}-C_{28} (mg/kg)**	**GRO + DRO C_6-C_{28} (mg/kg)**	**ORO C_{28}-C_{36} (mg/kg)**	**TPH C_6-C_{36} (mg/kg)**	**Chloride (mg/kg)**
FL 1 @ 1'	11/3/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,400
FL 2 @ 1'	11/3/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	7,680
FL 3 @ 1'	11/3/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
FL 4 @ 1'	11/3/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,170
NW 1	11/3/2022	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,840
EW 1	11/3/2022	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,000
SW 1	11/3/2022	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,900
WW 1	11/3/2022	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,800
NH 1 @ 1'	12/12/2022	1	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	304
EH 1 @ 1'	12/12/2022	1	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SH 1 @ 1'	12/12/2022	1	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	352
WH 1 @ 1'	12/12/2022	1	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	128

Dash (-): Sample not analyzed for that constituent.
Bold: NMOCD Closure Criteria exceedance.
Red: NMOCD Reclamation Standard exceedance.

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

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag

Checked: jwl Date: 3/17/23

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eTECH Environmental & Safety Solutions, Inc.

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[a] (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): Stove Pipe

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

Gauging Data

Static Water Level[b] (ft bmp) >60 Time _____ Measure Point Description Top of Casing, .75 ft agg

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

Well Purge Data

Volume Factors[c]					
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

Time	Cumulative Gallons Purged	Water Level (ft bmp)	Temp (°C)	pH (SU)	Specific Cond. (mS/cm)	TDS (g/l)	DO (mg/l)	ORP (mV)

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 _____

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

Comments

Stability Criteria:
- pH: ±0.1
- SC: ±5%, for SC ≤ 100 µS/cm; ±3%, for SC > 100 µS/cm
- DO: ±10% or 0.3 mg/L (whichever is greater)
- Temp: ± 0.2°C (USGS for thermistor)

Sample tubing left in well? Y N
(circle yes or no)
If so, **length** (ft)? _____

*Volume factors and stability criteria from USGS-NFM, 2006-Wilde et al., 1998, Driscoll, 1986, and EPA-Puls and Barcelona, 1996. Last form revision: 02.06.14.

Received by OCD: 3/29/2023 8:07:59 PM

Released to Imaging: 5/4/2023 1:07:48 PM

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eTECH Environmental & Safety Solutions, Inc.

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 Total Depth[a] (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[b] (ft bmp) >60 ft Time _____ Measure Point Description Top of Casing, 1.5 ft agg

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

Well Purge Data

Volume Factors[c]					
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

Time	Cumulative Gallons Purged	Water Level (ft bmp)	Temp (°C)	pH (SU)	Specific Cond. (mS/cm)	TDS (g/l)	DO (mg/l)	ORP (mV)

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 _____

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

Comments

_____

_____

_____

_____

Stability Criteria:
- pH: ±0.1
- SC: ±5%, for SC ≤ 100 µS/cm; ±3%, for SC > 100 µS/cm
- DO: ±10% or 0.3 mg/L (whichever is greater)
- Temp: ± 0.2°C (USGS for thermistor)

Sample tubing left in well? Y N
(circle yes or no)
If so, **length** (ft)? _____

*Volume factors and stability criteria from USGS-NFM, 2006-Wilde et al., 1998, Driscoll, 1986, and EPA-Puls and Barcelona, 1996. Last form revision: 02.06.14.

Received by OCD: 3/29/2023 8:07:59 PM

Released to Imaging: 5/4/2023 1:07:48 PM

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eTECH Environmental & Safety Solutions, Inc.

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[a] (ft bmp): NA

Type of Well: Monitor Recovery Potable Irrigation Other _____

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[b] (ft bmp) 7.60 Time _____ Measure Point Description _____

Comments: Did not go deeper, fear of equipment damage

Well Purge Data

Volume Factors[c]					
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

Time	Cumulative Gallons Purged	Water Level (ft bmp)	Temp (°C)	pH (SU)	Specific Cond. (mS/cm)	TDS (g/l)	DO (mg/l)	ORP (mV)

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 _____

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

Comments

_____

_____

_____

_____

Stability Criteria:
- pH: ±0.1
- SC: ±5%, for SC ≤ 100 µS/cm; ±3%, for SC > 100 µS/cm
- DO: ±10% or 0.3 mg/L (whichever is greater)
- Temp: ± 0.2°C (USGS for thermistor)

Sample tubing left in well? Y N
(circle yes or no)
If so, **length** (ft)? _____

*Volume factors and stability criteria from USGS-NFM, 2006-Wilde et al., 1998, Driscoll, 1986, and EPA-Puls and Barcelona, 1996. Last form revision: 02.06.14.

Received by OCD: 3/29/2023 8:07:59 PM

Released to Imaging: 5/4/2023 1:07:48 PM

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eTECH Environmental & Safety Solutions, Inc.

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 Comm Total Depth[a] (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[b] (ft bmp) 178.59 Time _____ Measure Point Description Top of Casing

Comments: _____

Well Purge Data

Volume Factors[c]					
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

Time	Cumulative Gallons Purged	Water Level (ft bmp)	Temp (°C)	pH (SU)	Specific Cond. (mS/cm)	TDS (g/l)	DO (mg/l)	ORP (mV)

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 _____

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

Comments

_____

_____

_____

_____

Stability Criteria:
- pH: ±0.1
- SC: ±5%, for SC ≤ 100 µS/cm; ±3%, for SC > 100 µS/cm
- DO: ±10% or 0.3 mg/L (whichever is greater)
- Temp: ± 0.2°C (USGS for thermistor)

Sample tubing left in well? Y N
(circle yes or no)
If so, **length** (ft)? _____

*Volume factors and stability criteria from USGS-NFM, 2006-Wilde et al., 1998, Driscoll, 1986, and EPA-Puls and Barcelona, 1996. Last form revision: 02.06.14.

Received by OCD: 3/29/2023 8:07:59 PM

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eTECH Environmental & Safety Solutions, Inc.

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[a] (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): Stove Pipe

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

Gauging Data

Static Water Level[b] (ft bmp) 176.56 Time _____ Measure Point Description Top of Casing ~2ft sgs

Comments: _____

Well Purge Data

Volume Factors[c]					
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

Time	Cumulative Gallons Purged	Water Level (ft bmp)	Temp (°C)	pH (SU)	Specific Cond. (mS/cm)	TDS (g/l)	DO (mg/l)	ORP (mV)

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 _____

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

Comments

_____

_____

_____

_____

Stability Criteria:
- pH: ±0.1
- SC: ±5%, for SC ≤ 100 µS/cm; ±3%, for SC > 100 µS/cm
- DO: ±10% or 0.3 mg/L (whichever is greater)
- Temp: ± 0.2°C (USGS for thermistor)

Sample tubing left in well? Y N
(circle yes or no)
If so, **length** (ft)? _____

*Volume factors and stability criteria from USGS-NFM, 2006-Wilde et al., 1998, Driscoll, 1986, and EPA-Puls and Barcelona, 1996. Last form revision: 02.06.14.

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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	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CL 00342 POD1		CL	RO	1	1	3	07	08S	37E	666880	3723166	3134	101		

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

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 669683.88 **Northing (Y):** 3724569.2 **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.

10/13/22 9:52 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

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)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
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 Rcv 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:	Top	Bottom	Description
	85	96	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	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.

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): CL 00342 POD1	OSE FILE NUMBER(S): CL 00342
WELL OWNER NAME(S): Steve R. Teston	PHONE (OPTIONAL):
WELL OWNER MAILING ADDRESS: 4098 S Roosevelt Rd L	CITY: Milsand STATE: NM ZIP: 88125

WELL LOCATION (FROM GPS): LATITUDE 33° 38. 115 N; LONGITUDE 103° 12. 0412 W; DEGREES / MINUTES / SECONDS; * ACCURACY REQUIRED: ONE TENTH OF A SECOND; * DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NW NW SW 1/2 SEC 7 Township 8 S Range 37 E

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1145	Dub Gilliam	Gilco Drilling Co.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
9-15-17	9-18-17	101	101	Unknown

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): Unknown

DRILLING FLUID: ☐ AIR ☒ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☒ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	20	14	Plastic	Glue	5	160#	
20	101	8 3/4	Plastic	Glue	5	160#	.035"

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	20	14	Cement	20	Wheel Barrel
20	101	8 3/4	Gravel Pack 00 gravel	81	Shovel

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 10/29/15)

FILE NUMBER	CL-342	POD NUMBER	1	TRN NUMBER	605580
LOCATION	SFK	85.37E.7.311			PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	2	2	Top soil	Y (N)	
2	37	35	Caliche, clay + sand (some rock ledges)	Y (N)	
37	78	41	Sand + soft sandstone (some sandy clay)	Y (N)	
78	83	5	Sand + gravel	Y (N)	
83	85	2	Brown clay	Y (N)	
85	96	11	Sand + sandy clay	(Y) N	1
96	101	5	Yellow + light blue clay	Y (N)	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:
☑ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 1 / 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

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

None

6. SIGNATURE

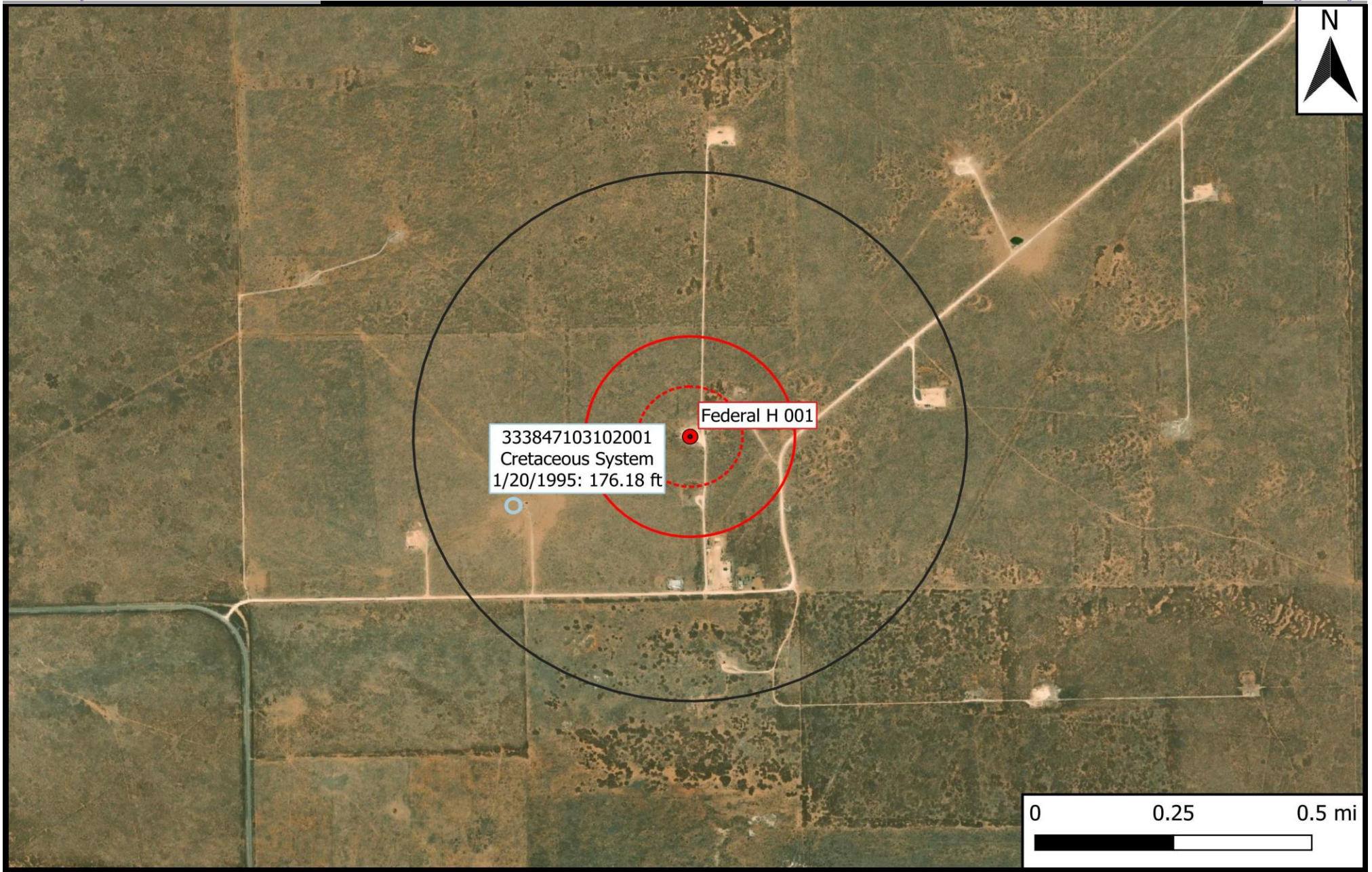
THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Dub Gilliam Dub Gilliam — 9-19-17

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 10/29/2015)

FILE NUMBER	CL-342	POD NUMBER	1	TRN NUMBER	605580
LOCATION	SHK	18S.37E.7.311			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 001
GPS: 33.647455, -103.170203
Roosevelt County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jk Date: 10/13/22

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click forNews 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

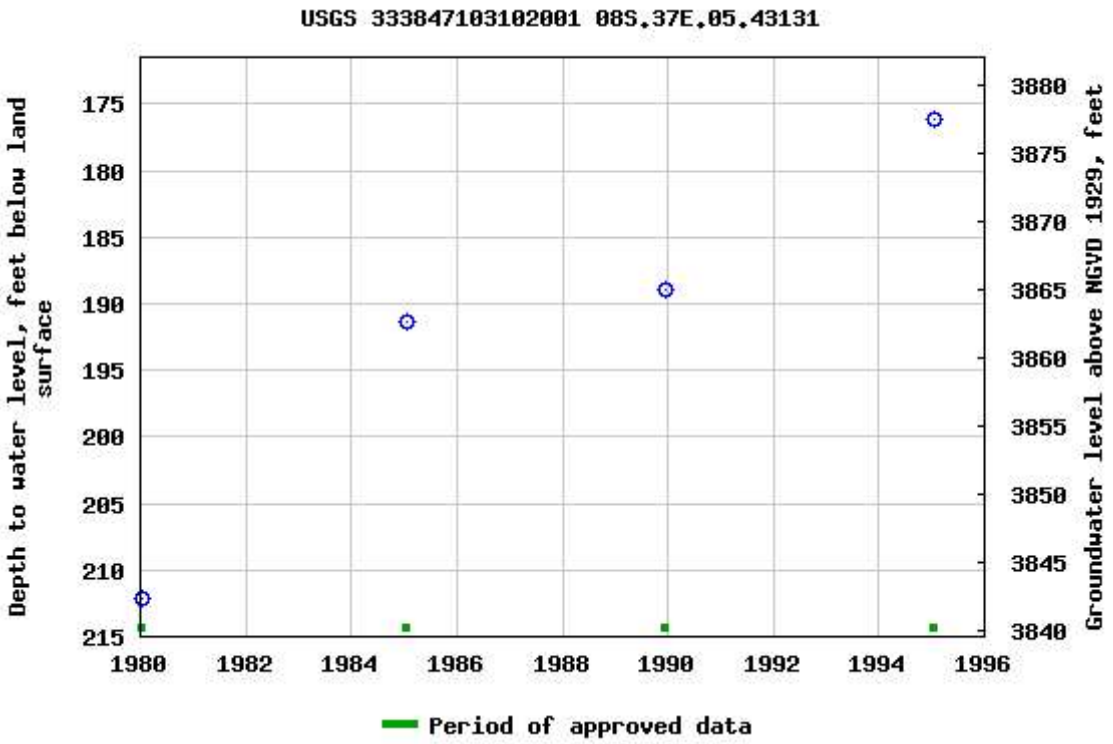
USGS 333847103102001 08S.37E.05.43131

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

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility FOIA Privacy Policies and Notices

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

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date: 11-3-22

Project: Federal H 001

Project Number: 16855 Latitude: 33.647455 Longitude: -103.170203

Sample ID	PID/Odor	grid Chloride Conc. Total x4	GPS
FL 1 1 FOOT	—	4.0 H.S. 2,628	
FL 2 1 FOOT	—	6.4 H.S. 6,884	
FL 3 1 FOOT	—	3.0 380	
FL 4 1 FOOT	—	5.0 952	
NW 1		8.0 11.5 12,952	
EW 1		5.8 12,272	
SW 1		7.0 8,672	
WW 1	—	8.0 HS 12,952	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

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

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

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

Received by OCD: 3/29/2023 8:07:59 PM

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eTECH Environmental & Safety Solutions, Inc.

Soil Profile

Date: 11-3-2022

Project: Federal H 001

Project Number: 16855 Latitude: 33.647455 Longitude: -103.170203

Depth (ft. bgs)	Description
1	6" Caliche / Pad Material
2	Red Sand
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
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Received by OCD: 3/29/2023 8:07:59 PM

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Appendix C
Laboratory Analytical Reports

CARDINAL Laboratories

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

December 13, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FEDERAL H001

Enclosed are the results of analyses for samples received by the laboratory on 12/12/22 16:11.

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.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/12/2022	Sampling Date:	12/12/2022
Reported:	12/13/2022	Sampling Type:	Soil
Project Name:	FEDERAL H001	Sampling Condition:	Cool & Intact
Project Number:	16855	Sample Received By:	Shalyn Rodriguez
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

Sample ID: NH 1 @ 1' (H225853-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	12/13/2022	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	12/13/2022	ND	215	108	200	4.51	
DRO >C10-C28*	<10.0	10.0	12/13/2022	ND	196	97.9	200	3.93	
EXT DRO >C28-C36	<10.0	10.0	12/13/2022	ND					

Surrogate: 1-Chlorooctane	*75.8 %*	*45.3-161*
Surrogate: 1-Chlorooctadecane	*81.8 %*	*46.3-178*

Sample ID: EH 1 @ 1' (H225853-02)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	12/13/2022	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	12/13/2022	ND	215	108	200	4.51	
DRO >C10-C28*	<10.0	10.0	12/13/2022	ND	196	97.9	200	3.93	
EXT DRO >C28-C36	<10.0	10.0	12/13/2022	ND					

Surrogate: 1-Chlorooctane	*83.2 %*	*45.3-161*
Surrogate: 1-Chlorooctadecane	*92.2 %*	*46.3-178*

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/12/2022	Sampling Date:	12/12/2022
Reported:	12/13/2022	Sampling Type:	Soil
Project Name:	FEDERAL H001	Sampling Condition:	Cool & Intact
Project Number:	16855	Sample Received By:	Shalyn Rodriguez
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

Sample ID: SH 1 @ 1' (H225853-03)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**352**	16.0	12/13/2022	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	12/13/2022	ND	215	108	200	4.51	
DRO >C10-C28*	<10.0	10.0	12/13/2022	ND	196	97.9	200	3.93	
EXT DRO >C28-C36	<10.0	10.0	12/13/2022	ND					

Surrogate: 1-Chlorooctane	*106 %*	*45.3-161*
Surrogate: 1-Chlorooctadecane	*115 %*	*46.3-178*

Sample ID: WH 1 @ 1' (H225853-04)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	12/13/2022	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	12/13/2022	ND	215	108	200	4.51	
DRO >C10-C28*	<10.0	10.0	12/13/2022	ND	196	97.9	200	3.93	
EXT DRO >C28-C36	<10.0	10.0	12/13/2022	ND					

Surrogate: 1-Chlorooctane	*62.6 %*	*45.3-161*
Surrogate: 1-Chlorooctadecane	*72.0 %*	*46.3-178*

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Cardinal Laboratories *=Accredited Analyte

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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

Company Name:	Etech Environmental & Safety Solutions, Inc.
Project Manager:	Joel Lowry
Address:	2617 W Marland
City:	Hobbs
State:	NM
Zip:	88240
Phone #:	(575) 264-9884
Fax #:	—
Project #:	168 55
Project Owner:	H.L. Brown
Project Name:	Federal H #001
Project Location:	Rural Roosevelt Co., NM
Sampler Name:	Miguel Ramirez

BILL TO

P.O. #:	
Company	H.L. Brown
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H325853-1	NH1@1'	G	1			X					X		12/12/22		X	X	X
-2	EH1@1'																
-3	SH1@1'																
-4	WH1@1'																

ANALYSIS REQUEST

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Relinquished By:	Date: 12/12/22	Received By:	
	Time: 1611		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 5.4i/C-0.6i 4.8i #113

Sample Condition: Cool ☑ Yes ☐ No; Intact ☐ Yes ☐ No

CHECKED BY: (Initials)

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS: Rush please

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

Received by OCD: 3/29/2023 8:07:59 PM

Released to Imaging: 5/4/2023 1:07:48 PM

CARDINAL Laboratories

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

November 10, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FEDERAL H001

Enclosed are the results of analyses for samples received by the laboratory on 11/03/22 16:05.

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.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	11/03/2022	Sampling Date:	11/03/2022
Reported:	11/10/2022	Sampling Type:	Soil
Project Name:	FEDERAL H001	Sampling Condition:	Cool & Intact
Project Number:	16855	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

Sample ID: FL 1 @ 1' (H225207-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/10/2022	ND	1.93	96.5	2.00	0.371	
Toluene*	<0.050	0.050	11/10/2022	ND	2.04	102	2.00	0.0217	
Ethylbenzene*	<0.050	0.050	11/10/2022	ND	1.99	99.4	2.00	0.204	
Total Xylenes*	<0.150	0.150	11/10/2022	ND	6.09	102	6.00	0.217	
Total BTEX	<0.300	0.300	11/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *84.2 %* *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	**3400**	16.0	11/04/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2022	ND	179	89.7	200	9.13	
DRO >C10-C28*	<10.0	10.0	11/08/2022	ND	203	101	200	6.31	
EXT DRO >C28-C36	<10.0	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane *115 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *124 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	11/03/2022	Sampling Date:	11/03/2022
Reported:	11/10/2022	Sampling Type:	Soil
Project Name:	FEDERAL H001	Sampling Condition:	Cool & Intact
Project Number:	16855	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

Sample ID: FL 2 @ 1' (H225207-02)

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	11/10/2022	ND	1.93	96.5	2.00	0.371	
Toluene*	<0.050	0.050	11/10/2022	ND	2.04	102	2.00	0.0217	
Ethylbenzene*	<0.050	0.050	11/10/2022	ND	1.99	99.4	2.00	0.204	
Total Xylenes*	<0.150	0.150	11/10/2022	ND	6.09	102	6.00	0.217	
Total BTEX	<0.300	0.300	11/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.6 %* *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	**7680**	16.0	11/07/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2022	ND	179	89.7	200	9.13	
DRO >C10-C28*	<10.0	10.0	11/08/2022	ND	203	101	200	6.31	
EXT DRO >C28-C36	<10.0	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane *110 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *119 %* *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:	11/03/2022	Sampling Date:	11/03/2022
Reported:	11/10/2022	Sampling Type:	Soil
Project Name:	FEDERAL H001	Sampling Condition:	Cool & Intact
Project Number:	16855	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

Sample ID: FL 3 @ 1' (H225207-03)

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	11/10/2022	ND	1.85	92.7	2.00	3.47	
Toluene*	<0.050	0.050	11/10/2022	ND	1.92	96.0	2.00	4.31	
Ethylbenzene*	<0.050	0.050	11/10/2022	ND	1.94	97.1	2.00	3.57	
Total Xylenes*	<0.150	0.150	11/10/2022	ND	5.98	99.7	6.00	3.33	
Total BTEX	<0.300	0.300	11/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *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	**64.0**	16.0	11/07/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2022	ND	179	89.7	200	9.13	
DRO >C10-C28*	<10.0	10.0	11/08/2022	ND	203	101	200	6.31	
EXT DRO >C28-C36	<10.0	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane *112 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *121 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	11/03/2022	Sampling Date:	11/03/2022
Reported:	11/10/2022	Sampling Type:	Soil
Project Name:	FEDERAL H001	Sampling Condition:	Cool & Intact
Project Number:	16855	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

Sample ID: FL 4 @ 1' (H225207-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/10/2022	ND	1.85	92.7	2.00	3.47	
Toluene*	<0.050	0.050	11/10/2022	ND	1.92	96.0	2.00	4.31	
Ethylbenzene*	<0.050	0.050	11/10/2022	ND	1.94	97.1	2.00	3.57	
Total Xylenes*	<0.150	0.150	11/10/2022	ND	5.98	99.7	6.00	3.33	
Total BTEX	<0.300	0.300	11/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *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	**1170**	16.0	11/07/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2022	ND	179	89.7	200	9.13	
DRO >C10-C28*	<10.0	10.0	11/08/2022	ND	203	101	200	6.31	
EXT DRO >C28-C36	<10.0	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane *115 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *124 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	11/03/2022	Sampling Date:	11/03/2022
Reported:	11/10/2022	Sampling Type:	Soil
Project Name:	FEDERAL H001	Sampling Condition:	Cool & Intact
Project Number:	16855	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

Sample ID: NW 1 (H225207-05)

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	11/10/2022	ND	1.85	92.7	2.00	3.47	
Toluene*	<0.050	0.050	11/10/2022	ND	1.92	96.0	2.00	4.31	
Ethylbenzene*	<0.050	0.050	11/10/2022	ND	1.94	97.1	2.00	3.57	
Total Xylenes*	<0.150	0.150	11/10/2022	ND	5.98	99.7	6.00	3.33	
Total BTEX	<0.300	0.300	11/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *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	**2840**	16.0	11/07/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2022	ND	179	89.7	200	9.13	
DRO >C10-C28*	<10.0	10.0	11/08/2022	ND	203	101	200	6.31	
EXT DRO >C28-C36	<10.0	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane *106 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *115 %* *46.3-178*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	11/03/2022	Sampling Date:	11/03/2022
Reported:	11/10/2022	Sampling Type:	Soil
Project Name:	FEDERAL H001	Sampling Condition:	Cool & Intact
Project Number:	16855	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

Sample ID: EW 1 (H225207-06)

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	11/10/2022	ND	1.85	92.7	2.00	3.47	
Toluene*	<0.050	0.050	11/10/2022	ND	1.92	96.0	2.00	4.31	
Ethylbenzene*	<0.050	0.050	11/10/2022	ND	1.94	97.1	2.00	3.57	
Total Xylenes*	<0.150	0.150	11/10/2022	ND	5.98	99.7	6.00	3.33	
Total BTEX	<0.300	0.300	11/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *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	**2000**	16.0	11/07/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2022	ND	179	89.7	200	9.13	
DRO >C10-C28*	<10.0	10.0	11/08/2022	ND	203	101	200	6.31	
EXT DRO >C28-C36	<10.0	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane *119 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *128 %* *46.3-178*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	11/03/2022	Sampling Date:	11/03/2022
Reported:	11/10/2022	Sampling Type:	Soil
Project Name:	FEDERAL H001	Sampling Condition:	Cool & Intact
Project Number:	16855	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

Sample ID: SW 1 (H225207-07)

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	11/10/2022	ND	1.85	92.7	2.00	3.47	
Toluene*	<0.050	0.050	11/10/2022	ND	1.92	96.0	2.00	4.31	
Ethylbenzene*	<0.050	0.050	11/10/2022	ND	1.94	97.1	2.00	3.57	
Total Xylenes*	<0.150	0.150	11/10/2022	ND	5.98	99.7	6.00	3.33	
Total BTEX	<0.300	0.300	11/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *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	**1900**	16.0	11/07/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2022	ND	179	89.7	200	9.13	
DRO >C10-C28*	<10.0	10.0	11/08/2022	ND	203	101	200	6.31	
EXT DRO >C28-C36	<10.0	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane *108 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *116 %* *46.3-178*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	11/03/2022	Sampling Date:	11/03/2022
Reported:	11/10/2022	Sampling Type:	Soil
Project Name:	FEDERAL H001	Sampling Condition:	Cool & Intact
Project Number:	16855	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

Sample ID: WW 1 (H225207-08)

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	11/10/2022	ND	1.85	92.7	2.00	3.47	
Toluene*	<0.050	0.050	11/10/2022	ND	1.92	96.0	2.00	4.31	
Ethylbenzene*	<0.050	0.050	11/10/2022	ND	1.94	97.1	2.00	3.57	
Total Xylenes*	<0.150	0.150	11/10/2022	ND	5.98	99.7	6.00	3.33	
Total BTEX	<0.300	0.300	11/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *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	**2800**	16.0	11/07/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2022	ND	179	89.7	200	9.13	
DRO >C10-C28*	<10.0	10.0	11/08/2022	ND	203	101	200	6.31	
EXT DRO >C28-C36	<10.0	10.0	11/08/2022	ND					

Surrogate: 1-Chlorooctane *79.9 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *83.5 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

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Notes and Definitions

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

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CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1/1

Company Name: ETech Environmental		BILL TO	
Project Manager: Joel Lowry		P.O. #:	
Address: 2617 W. Marland		Company: H.L. Brown	
City: Hobbs	State: NM Zip: 88240	Attn:	
Phone #: —	Fax #: —	Address:	
Project #: 16855	Project Owner: H.L. Brown	City:	
Project Name: Federal HDD1		State: Zip:	
Project Location: Rural Roosevelt Co., NM		Phone #:	
Sampler Name: Quentin Keema		Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	BTEX	TPH
H225207																	
1	FL1 @ 1'	C				X					X		11/3/22				
2	FL2 @ 1'																
3	FL3 @ 1'																
4	FL4 @ 1'																
5	NW 1																
6	EW 1																
7	SW 1																
8	WW 1																

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Relinquished By:	Date: 11-3-22	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1605		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	REMARKS: PM@etechenv.com
	Time:		

Delivered By: (Circle One)	Observed Temp. °C 4.8	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☑ Rush ☐	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C 4.2	☐ Yes ☑ Yes ☐ No ☐ No		Thermometer ID #113 Correction Factor -0.6°C	☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

FORM-006 R 3.3 07/18/22

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

Received by OCD: 3/29/2023 8:07:59 PM

Released to Imaging: 5/4/2023 1:07:48 PM

Appendix D
Photographic Log

Photographic Log

Photo Number: #1 **Photo Direction:** Northeast **Photo Description:** Initial release area.	

Photo Number: #2 **Photo Direction:** East **Photo Description:** Open remediation excavation.	

Photographic Log

Photo Number: #3 **Photo Direction:** Northeast **Photo Description:** Open remediation excavation.	
Photo Number: #4 **Photo Direction:** Northwest **Photo Description:** After completion of remediation activities.	

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

Operator: H L BROWN OPERATING, LLC P.O. Box 2237 Midland, TX 79702	OGRID: 213179
	Action Number: 202107
	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