

Incident ID	nAPP2102530060
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>125</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.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	nAPP2102530060
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: Jacqui Harris \_\_\_\_\_ Title: Environmental Coordinator \_\_\_\_\_

Signature:  \_\_\_\_\_ Date: 6/22/2021 \_\_\_\_\_

email: jacqui.harris@conocophillips.com \_\_\_\_\_ Telephone: (575)745-1807 \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nAPP2102530060
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## Remediation Plan

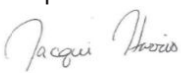
**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Jacqui Harris \_\_\_\_\_ Title: Environmental Coordinator \_\_\_\_\_  
Signature:  \_\_\_\_\_ Date: 6/22/2021 \_\_\_\_\_  
email: jacqui.harris@conocophillips.com \_\_\_\_\_ Telephone: (575)745-1807 \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

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

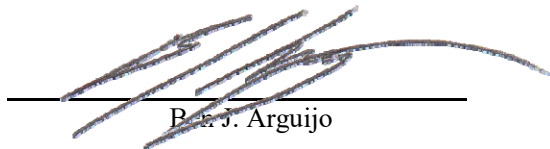
# Site Assessment Report, Proposed Remediation Plan & Deferral Request

## COG Operating, LLC Save DA Federal 1 Tank Battery


Eddy County, New Mexico  
Unit Letter "D", Section 21, Township 25 South, Range 29 East  
Latitude 32.12085 North, Longitude 103.99555 West  
NMOCD Reference No. nAPP2102530060

Prepared By:

**Etech Environmental & Safety Solutions, Inc.**  
3100 Plains Highway  
Lovington, New Mexico 88260



Ben J. Arguijo



Joel W. Lowry



Midland • San Antonio • Lubbock • Lovington • Lafayette

## TABLE OF CONTENTS

	<i>Section</i>
PROJECT INFORMATION.....	<b>1.0</b>
SITE CHARACTERIZATION.....	<b>2.0</b>
CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE.....	<b>3.0</b>
INITIAL SITE ASSESSMENT.....	<b>4.0</b>
PROPOSED REMEDIATION PLAN.....	<b>5.0</b>
SAMPLING PLAN.....	<b>6.0</b>
TIMELINE & ESTIMATED VOLUME OF SOIL TO BE REMEDIATED.....	<b>7.0</b>
RESTORATION, RECLAMATION & RE-VEGETATION PLAN.....	<b>8.0</b>
LIMITATIONS.....	<b>9.0</b>
DISTRIBUTION.....	<b>10.0</b>

### FIGURES

- Figure 1 - Topographic Map
- Figure 2 - Aerial Proximity Map
- Figure 3 - Site & Sample Location Map

### TABLES

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

### APPENDICES

- Appendix A - Depth to Groundwater Information
- Appendix B - Field Data & Soil Profile Logs
- Appendix C - Laboratory Analytical Reports
- Appendix D - Photographic Log



## 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?	125'	
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
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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) and Fish and Wildlife Services (FWS) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted in 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 proposed NMOCD Closure Criteria and NMOCD Reclamation Standards for the Site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
125'	Chloride (Cl <sup>-</sup> )	EPA 300.0 or SM4500 Cl B	600	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	100	100
	Gas Range Organics + Diesel Range Organics (GRO + DRO)	EPA SW-846 Method 8015M	-	-
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

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

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

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

## 4.0 INITIAL SITE ASSESSMENT

On June 3, 2021, Etech conducted an initial site assessment. During the initial site assessment, a series of hand-augered soil bores were advanced within the release margins in an effort to determine the vertical extent of impacted soil. In addition, hand-augered soil bores were advanced at the inferred edges of the affected area in an effort to determine the horizontal extent of impacted soil. During the advancement of the hand-augered soil bores, soil samples were collected and field-screened for the presence of Volatile Organic Compounds (VOCs) utilizing olfactory/visual senses and/or concentrations of chloride utilizing a Hach Quantab® chloride test kit.

Based on field observations and field test data, a total of 14 delineation soil samples (NHS @ 0-6", NHS @ 1', EHS @ 0-6", EHS @ 1', SHS @ 0-6", SHS @ 1', WHS @ 0-6", WHS @ 1', SP 1 @ 0-6", SP 1 @ 1', SP 2 @ 0-6", SP 2 @ 1', SP 3 @ 0-6", and SP 3 @ 1') were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and chloride. Based on laboratory analytical results, the horizontal extent of impacted soil was adequately defined. However, additional vertical delineation was required in the areas characterized by sample points SP 1, SP 2, and SP 3.

On June 8, 2021, Etech revisited the Site. During the site visit, a series of test trenches were advanced in the areas characterized by sample points SP 1, SP 2, and SP 3 to further investigate the vertical extent of impacted soil. During the advancement of the test trenches, three (3) soil samples (SP 1 @ 2', SP 2 @ 2', and SP 3 @ 2') were collected and submitted to the laboratory for analysis of BTEX, TPH, and chloride. Based on laboratory analytical results, the vertical extent of impacted soil was adequately defined, and soil was not affected above the proposed NMOCD Closure Criteria beyond two (2) feet below ground surface (bgs) in the areas characterized by sample points SP 1, SP 2, and SP 3.

The locations of the hand-augered soil bores and test trenches are depicted in Figure 3, "Site & Sample Location Map". Soil chemistry data is summarized in Table 1. Field data and soil profile logs are provided in Appendix B. Laboratory analytical reports are provided in Appendix C. General photographs of the Site are provided in Appendix D.

## 5.0 PROPOSED REMEDIATION PLAN

Based on laboratory analytical results, site characteristics, and field observations made during the initial site assessment, COG Operating, LLC, proposes the following remediation activities designed to advance the Site toward an approved closure:

- Utilizing mechanical equipment and/or hand tools, excavate impacted soil affected above the NMOCD Closure Criteria in the areas characterized by sample points SP 1, SP 2, and SP 3 to an estimated depth of two (2) feet bgs.
- The sidewalls and floor of the excavated area will be advanced until laboratory analytical results indicate BTEX, TPH, and chloride concentrations are below the NMOCD Closure Criteria, or to the maximum extent practicable.
- Impacted soil affected above the NMOCD Closure Criteria remaining in-situ adjacent to the above ground storage tanks and associated equipment will be remediated upon abandoning and decommissioning the facility.
- Excavated soil will be transported to an NMOCD-permitted surface waste facility for disposal.
- Upon receiving laboratory analytical results from excavation confirmation soil samples, the excavated area will be backfilled with locally sourced, non-impacted, "like" material.
- Upon completion of remediation activities, a *Remediation Summary & Deferral Request* will be prepared, detailing field activities, laboratory analytical results from confirmation soil samples, and a determination of the volume of impacted soil to remain in-situ.

## 6.0 SAMPLING PLAN

Upon completion of excavation activities, representative five-point composite confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than 50 linear feet. A minimum of one (1) representative five-point composite confirmation sample will be collected from the base of the excavated area representing every 200 square feet. Additional, discrete samples will be collected from wet or visibly stained areas inferred to have been affected by the release, as necessary.

## **7.0 TIMELINE & ESTIMATED VOLUME OF SOIL TO BE REMEDIATED**

Remediation activities are expected to be completed within 90 days of receiving necessary approval(s) of the *Site Assessment Report, Proposed Remediation Plan & Deferral Request*. Based on laboratory analytical results, site characteristics, and field observations made during the initial site assessment, it is estimated that approximately 85 cubic yards of impacted soil is in need of removal.

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

The release was confined to the containment area of an active tank battery facility on a production pad. Upon receiving laboratory analytical results from confirmation soil samples, excavated areas will be backfilled with locally sourced, non-impacted, "like" material placed at or near original relative positions and compacted/contoured to fit the needs of the facility. Final reclamation and re-vegetation will be conducted upon decommission and abandonment of the facility.

## **9.0 LIMITATIONS**

Etech Environmental & Safety Solutions, Inc., has prepared this *Site Assessment Report, Proposed Remediation Plan & Deferral Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference 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 COG Operating, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or COG Operating, LLC.

## **10.0 DISTRIBUTION**

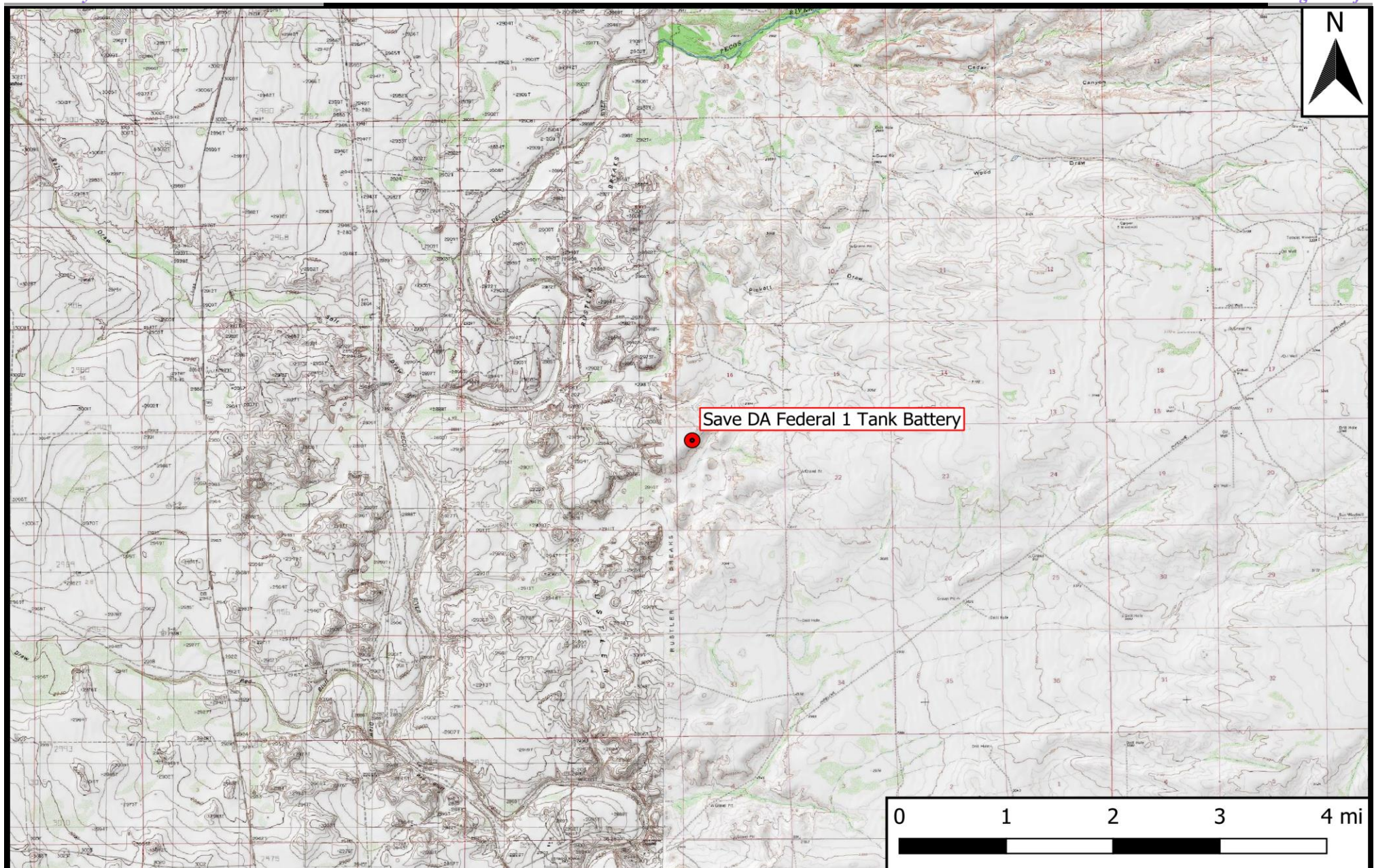
***COG Operating, LLC***  
*600 West Illinois Avenue*  
*Midland, TX 79701*

***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  
COG Operating, LLC  
Save DA Federal 1 Tank Battery  
GPS: 32.12085, -103.99555  
Eddy County

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

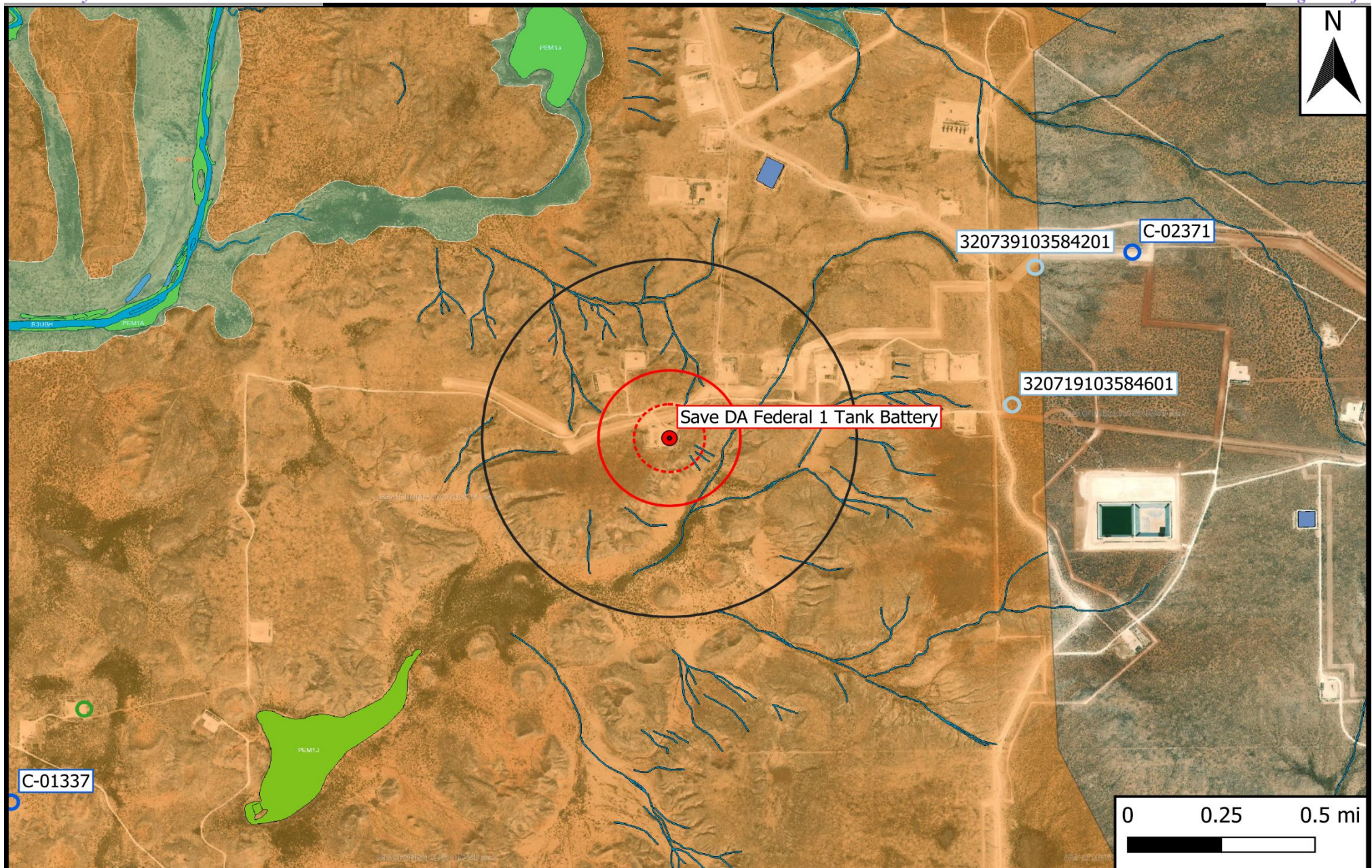
Drafted: mag

Checked: jwl

Date: 6/3/21

## **Figure 2**

### **Aerial Proximity Map**



## Legend

- |                                |                            |                   |
|--------------------------------|----------------------------|-------------------|
| ● Site Location                | 1% Annual Flood Chance     | ⋯ 500-Ft Radius   |
| ● Well - NMOSE                 | Emergent/Forested Wetlands | ⋯ 1,000-Ft Radius |
| ● Well - USGS                  | Freshwater Pond/Lake       | ○ 0.5-Mi Radius   |
| ● Well - Investigative/Monitor | Medium/High Karst          |                   |
| — Potash Mine Workings         | Riverine                   |                   |

**Figure 2**  
 Aerial Proximity Map  
 COG Operating, LLC  
 Save DA Federal 1 Tank Battery  
 GPS: 32.12085, -103.99555  
 Eddy County

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

Drafted: bja

Checked: jwl

Date: 6/11/21

## **Figure 3**

### **Site & Sample Location Map**



## Legend

- Proposed Excavation (2' bgs)
- Auger Hole
- Delineation Trench

## Figure 3

Site & Sample Location Map  
 COG Operating, LLC  
 Save DA Federal 1 Tank Battery  
 GPS: 32.12085, -103.99555  
 Eddy County

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

Drafted: bja

Checked: jwl

Date: 6/11/21

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

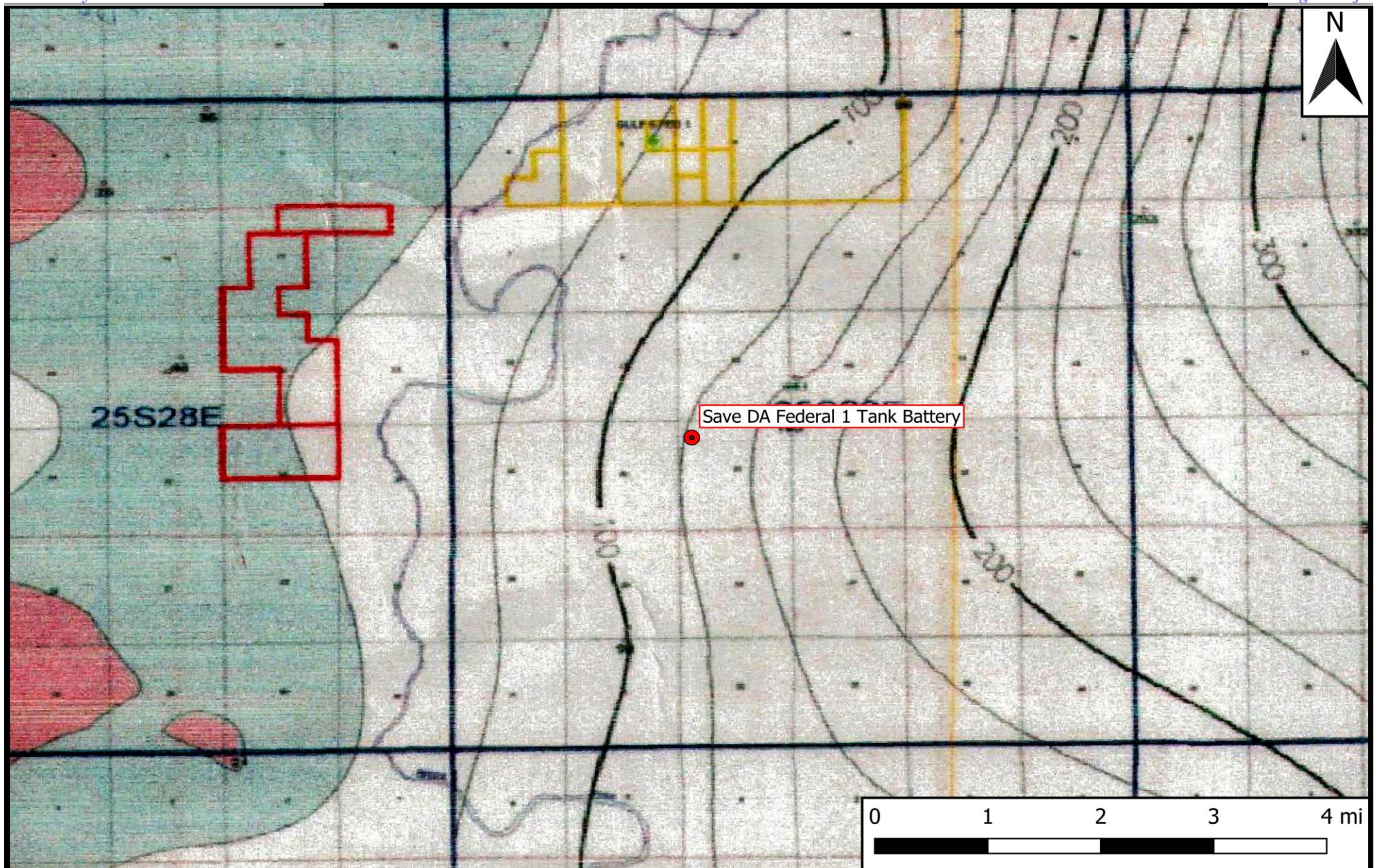
<b>Table 1</b> <b>Concentrations of BTEX, TPH &amp; Chloride in Soil</b> <b>COG Operating, LLC</b> <b>Save DA Federal 1 Tank Battery</b> <b>NMOCD Ref. #: NAPP2102530060</b>											
NMOCD Closure Criteria				10	50	-	-	-	-	100	600
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth (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)
NHS @ 0-6"	6/3/2021	0 - 0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	304
NHS @ 1'	6/3/2021	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
EHS @ 0-6"	6/3/2021	0 - 0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	224
EHS @ 1'	6/3/2021	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SHS @ 0-6"	6/3/2021	0 - 0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256
SHS @ 1'	6/3/2021	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
WHS @ 0-6"	6/3/2021	0 - 0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	288
WHS @ 1'	6/3/2021	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SP 1 @ 0-6"	6/3/2021	0 - 0.5	In-Situ	<0.050	<0.300	24.3	3,040	3,060	514	<b>3,580</b>	<b>8,800</b>
SP 1 @ 1'	6/3/2021	1	In-Situ	<0.050	<0.300	<10.0	217	217	42.2	<b>259</b>	<b>1,800</b>
SP 1 @ 2'	6/8/2021	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	368
SP 2 @ 0-6"	6/3/2021	0 - 0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>2,600</b>
SP 2 @ 1'	6/3/2021	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>2,680</b>
SP 2 @ 2'	6/8/2021	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	176
SP 3 @ 0-6"	6/3/2021	0 - 0.5	In-Situ	<0.050	<0.300	<10.0	186	186	13.0	<b>199</b>	<b>4,400</b>
SP 3 @ 1'	6/3/2021	1	In-Situ	<0.050	<0.300	<10.0	11.2	11.2	<10.0	11.2	<b>1,140</b>
SP 3 @ 2'	6/8/2021	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	320

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

**Bold:** NMOCD Closure Criteria exceedance.**Red:** NMOCD Reclamation Standard exceedance.

## **Appendix A**

### **Depth to Groundwater Information**



## Legend

- Site Location

**Figure 4**

Inferred Depth to Groundwater Trend Map  
COG Operating, LLC  
Save DA Federal 1 Tank Battery  
GPS: 32.12085, -103.99555  
Eddy County



Drafted: mag

Checked: jwl

Date: 6/3/21



# 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="#">C 04503 POD1</a>		CUB	ED	4	3	3	09	25S	29E	594884	3556142	1874			
<a href="#">C 02371</a>		C	ED	2	3	15	25S	29E	596741	3555106*		2155	200	60	140
<a href="#">C 02680</a>		CUB	ED	2	3	15	25S	29E	596741	3555106*		2155	200		
<a href="#">C 02518</a>		C	ED	3	4	08	25S	29E	593895	3556300*		2201	462		

Average Depth to Water: **60 feet**

Minimum Depth: **60 feet**

Maximum Depth: **60 feet**

**Record Count:** 4

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

**Easting (X):** 594753.14

**Northing (Y):** 3554272.77

**Radius:** 3220

\*UTM location was derived from PLSS - see Help

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.

6/3/21 8:48 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	Tws	Rng	X	Y
	C 02371	2	3	15	25S	29E	596741	3555106*	

x

**Driller License:** 1259 **Driller Company:** CAMPBELL DRILLING

**Driller Name:** CAMPBELL, MICHAEL R.

<b>Drill Start Date:</b> 01/12/1995	<b>Drill Finish Date:</b> 01/24/1995	<b>Plug Date:</b>
<b>Log File Date:</b> 02/01/1995	<b>PCW Rcv Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b> 20 GPM
<b>Casing Size:</b> 7.00	<b>Depth Well:</b> 200 feet	<b>Depth Water:</b> 60 feet

x

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	162	200	Sandstone/Gravel/Conglomerate

x

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	140	200

x

\*UTM location was derived from PLSS - see Help

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.

6/3/21 8:49 AM


POINT OF DIVERSION SUMMARY



# 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	Tws	Rng	X	Y
C	02518	3	4	08	25S	29E	593895	3556300*	

x

**Driller License:** 421 **Driller Company:** GLENN'S WATER WELL SERVICE

**Driller Name:** GLENN, CLARK A."CORKY" (LD)

**Drill Start Date:** 06/02/1997 **Drill Finish Date:** 06/02/1997 **Plug Date:**

**Log File Date:** 06/10/1997 **PCW Rcv Date:** **Source:**

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

**Casing Size:** **Depth Well:** 462 feet **Depth Water:**

x

\*UTM location was derived from PLSS - see Help

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.


6/3/21 8:49 AM

POINT OF DIVERSION SUMMARY



# 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>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
C	02680		2	3	15	25S	29E	596741	3555106* 

x

**Driller License:****Driller Company:****Driller Name:****Drill Start Date:****Drill Finish Date:** 04/30/1964**Plug Date:****Log File Date:****PCW Rcv Date:****Source:****Pump Type:****Pipe Discharge Size:****Estimated Yield:****Casing Size:** 6.00**Depth Well:** 200 feet**Depth Water:**

x

\*UTM location was derived from PLSS - see Help

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.

6/3/21 8:49 AM

POINT OF DIVERSION SUMMARY




# 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	Tws	Rng	X	Y
NA	C 04503 POD1	4	3	3	09	25S	29E	594884	3556142 

x

**Driller License:** 1249 **Driller Company:** ATKINS ENGINEERING ASSOC. INC.

**Driller Name:** ATKINS, JACKIE D.UELENER

**Drill Start Date:** 04/19/2021 **Drill Finish Date:** 04/19/2021 **Plug Date:** 04/27/2021

**Log File Date:** 05/05/2021 **PCW Rcv Date:** **Source:**

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

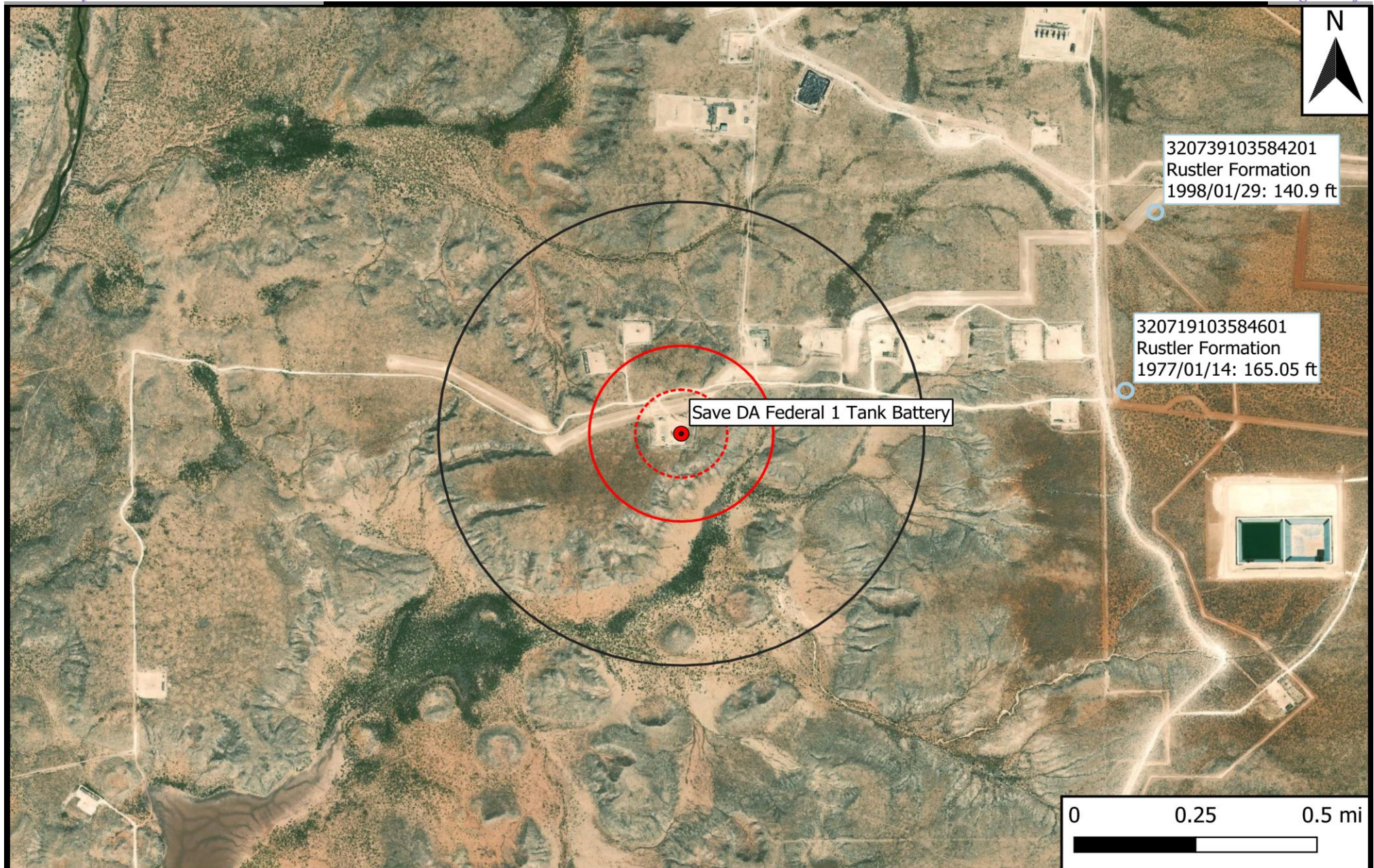
**Casing Size:** **Depth Well:** **Depth Water:**

x

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.

6/3/21 8:49 AM

POINT OF DIVERSION SUMMARY



## Legend

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

## Figure 5

USGS Well Proximity Map  
 COG Operating, LLC  
 Save DA Federal 1 Tank Battery  
 GPS: 32.12085, -103.99555  
 Eddy County



Drafted: mag

Checked: jwl

Date: 6/3/21



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National Water Information System: Web Interface

USGS Water Resources

Data Category:  
Groundwater

Geographic Area:  
United States

GO

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Groundwater levels for the Nation

\* IMPORTANT: [Next Generation Station Page](#)

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =  
    • 320719103584601

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 320719103584601 25S.29E.16.44444

Eddy County, New Mexico  
Latitude 32°07'19", Longitude 103°58'46" NAD27  
Land-surface elevation 3,042 feet above NAVD88  
The depth of the well is 200 feet below land surface.  
This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data

Tab-separated data

Graph of data

Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1958-08-19			D 72019	170.14			1	Z			A
1958-10-23			D 72019	170.80			1	Z			A
1975-12-09			D 72019	164.95			1	S			A
1976-01-16			D 72019	167.12			1	S			A
1977-01-14			D 72019	165.05			1	S			A

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

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**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: 2021-06-11 13:18:19 EDT

0.32 0.26 nadww02





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## National Water Information System: Web Interface

USGS Water Resources

Data Category:  Geographic Area:

[Click for News Bulletins](#)

Groundwater levels for the Nation

\* IMPORTANT: [Next Generation Station Page](#)

### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 320739103584201

Minimum number of levels = 1

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

### USGS 320739103584201 25S.29E.15.31134

Eddy County, New Mexico

Latitude 32°07'39", Longitude 103°58'42" NAD27

Land-surface elevation 3,017 feet above NAVD88

The depth of the well is 192 feet below land surface.

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

This well is completed in the Rustler Formation (312RSLR) local aquifer.

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1983-02-01			D 72019	140.40			1	Z			A
1987-10-20			D 72019	140.33			1	Z			A
1992-11-06			D 72019	140.81			1	S			A
1998-01-29			D 72019	140.90			1	S			A

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

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**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: 2021-06-11 13:19:33 EDT

0.43 0.36 nadww01



## **Appendix B**

### **Field Data & Soil Profile Logs**



## Sample Log

Date:

6/3/21

Project: Save DA Federal 1 Tank Battery

Project Number: 14256

Latitude: 32.12085

Longitude: -103.99555

[illegible]

**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



# Soil Profile

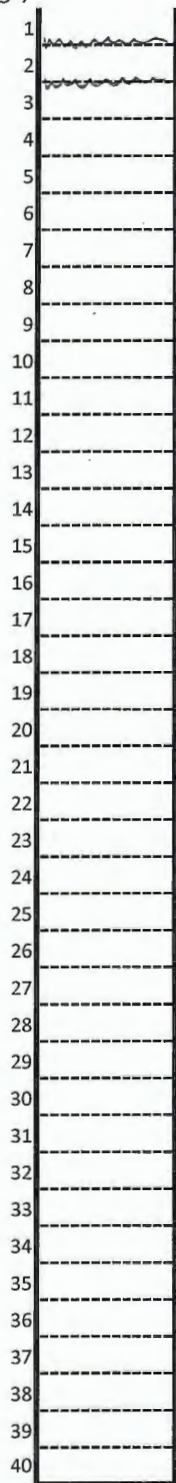
Date: 6/7/21

Project: Save DA Federal 1 Tank Battery

Project Number: 14256 Latitude: 32.12085 Longitude: -103.99555

Depth (ft. bgs)

Description



1	Imported Fill / Caliche
2	Atkati Topsoil
3	Gypsum / Residue Rock
4	
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## **Appendix C**

### **Laboratory Analytical Reports**



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

---

June 08, 2021

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: SAVE DA FEDERAL 1 TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/03/21 16:53.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	06/03/2021	Sampling Date:	06/03/2021
Reported:	06/08/2021	Sampling Type:	Soil
Project Name:	SAVE DA FEDERAL 1 TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	14256	Sample Received By:	Tamara Oldaker
Project Location:	COG - 32.12085-103.99555		

**Sample ID: NHS @ 0-6" (H211430-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35	
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94	
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65	
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97	
Total BTEX	<0.300	0.300	06/04/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.9-140

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	06/08/2021	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	06/05/2021	ND	222	111	200	1.24	
DRO >C10-C28*	<10.0	10.0	06/05/2021	ND	230	115	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	06/05/2021	ND					

Surrogate: 1-Chlorooctane 67.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 65.6 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NHS @ 1' (H211430-02)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35	
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94	
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65	
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97	
Total BTEx	<0.300	0.300	06/04/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.9-140

Chloride, SM4500CI-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	06/08/2021	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	06/05/2021	ND	222	111	200	1.24	
DRO >C10-C28*	<10.0	10.0	06/05/2021	ND	230	115	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	06/05/2021	ND					

Surrogate: 1-Chlorooctane 68.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 66.0 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SHS @ 0-6" (H211430-03)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35		
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94		
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65		
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97		
Total BTEx	<0.300	0.300	06/04/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	06/08/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2021	ND	222	111	200	1.24	
DRO >C10-C28*	<10.0	10.0	06/05/2021	ND	230	115	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	06/05/2021	ND					

Surrogate: 1-Chlorooctane 73.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 69.8 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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 JOEL LOWRY  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SHS @ 1' (H211430-04)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35	
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94	
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65	
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97	
Total BTEx	<0.300	0.300	06/04/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/08/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2021	ND	222	111	200	1.24	
DRO >C10-C28*	<10.0	10.0	06/05/2021	ND	230	115	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	06/05/2021	ND					

Surrogate: 1-Chlorooctane 71.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 68.1 % 38.9-142

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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  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EHS @ 0-6" (H211430-05)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35		
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94		
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65		
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97		
Total BTEx	<0.300	0.300	06/04/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	06/08/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2021	ND	222	111	200	1.24	
DRO >C10-C28*	<10.0	10.0	06/05/2021	ND	230	115	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	06/05/2021	ND					

Surrogate: 1-Chlorooctane 73.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 69.8 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EHS @ 1' (H211430-06)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35		
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94		
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65		
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97		
Total BTEx	<0.300	0.300	06/04/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.9-140

Chloride, SM4500CI-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	06/08/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2021	ND	222	111	200	1.24	
DRO >C10-C28*	<10.0	10.0	06/05/2021	ND	230	115	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	06/05/2021	ND					

Surrogate: 1-Chlorooctane 74.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 71.5 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WHS @ 0-6" (H211430-07)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35	
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94	
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65	
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97	
Total BTEx	<0.300	0.300	06/04/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	06/08/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2021	ND	222	111	200	1.24	
DRO >C10-C28*	<10.0	10.0	06/05/2021	ND	230	115	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	06/05/2021	ND					

Surrogate: 1-Chlorooctane 75.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 70.8 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WHS @ 1' (H211430-08)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35	
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94	
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65	
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97	
Total BTEx	<0.300	0.300	06/04/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.9-140

Chloride, SM4500CI-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	06/08/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2021	ND	222	111	200	1.24	
DRO >C10-C28*	<10.0	10.0	06/05/2021	ND	230	115	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	06/05/2021	ND					

Surrogate: 1-Chlorooctane 73.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 68.3 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 0-6" (H211430-09)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/07/2021	ND	1.99	99.4	2.00	5.35		
Toluene*	<0.050	0.050	06/07/2021	ND	1.96	98.2	2.00	4.94		
Ethylbenzene*	<0.050	0.050	06/07/2021	ND	1.89	94.6	2.00	5.65		
Total Xylenes*	<0.150	0.150	06/07/2021	ND	5.72	95.3	6.00	4.97		
Total BTEx	<0.300	0.300	06/07/2021	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8800	16.0	06/08/2021	ND	416	104	400	3.77		

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*	24.3	10.0	06/05/2021	ND	222	111	200	1.24	
DRO >C10-C28*	3040	10.0	06/05/2021	ND	230	115	200	3.52	
EXT DRO >C28-C36	514	10.0	06/05/2021	ND					

Surrogate: 1-Chlorooctane 90.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 143 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 Fax To: (575) 396-1429

Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 1' (H211430-10)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35	
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94	
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65	
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97	
Total BTEx	<0.300	0.300	06/04/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1800	16.0	06/08/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2021	ND	222	111	200	1.24	
DRO >C10-C28*	217	10.0	06/05/2021	ND	230	115	200	3.52	
EXT DRO >C28-C36	42.2	10.0	06/05/2021	ND					

Surrogate: 1-Chlorooctane 74.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 81.2 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 0-6" (H211430-11)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35	
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94	
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65	
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97	
Total BTEx	<0.300	0.300	06/04/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2600	16.0	06/08/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2021	ND	196	98.2	200	1.10	
DRO >C10-C28*	<10.0	10.0	06/04/2021	ND	203	102	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	06/04/2021	ND					

Surrogate: 1-Chlorooctane 73.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 70.5 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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 Fax To: (575) 396-1429

Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 1' (H211430-12)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35	
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94	
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65	
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97	
Total BTEx	<0.300	0.300	06/04/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2680	16.0	06/08/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2021	ND	196	98.2	200	1.10	
DRO >C10-C28*	<10.0	10.0	06/04/2021	ND	203	102	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	06/04/2021	ND					

Surrogate: 1-Chlorooctane 78.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 76.6 % 38.9-142

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Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 @ 0-6" (H211430-13)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35	
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94	
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65	
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97	
Total BTEx	<0.300	0.300	06/04/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4400	16.0	06/08/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2021	ND	196	98.2	200	1.10	
DRO >C10-C28*	186	10.0	06/04/2021	ND	203	102	200	1.25	
EXT DRO >C28-C36	13.0	10.0	06/04/2021	ND					

Surrogate: 1-Chlorooctane 60.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 66.0 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 06/03/2021  
 Reported: 06/08/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/03/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 @ 1' (H211430-14)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2021	ND	1.99	99.4	2.00	5.35	
Toluene*	<0.050	0.050	06/04/2021	ND	1.96	98.2	2.00	4.94	
Ethylbenzene*	<0.050	0.050	06/04/2021	ND	1.89	94.6	2.00	5.65	
Total Xylenes*	<0.150	0.150	06/04/2021	ND	5.72	95.3	6.00	4.97	
Total BTEx	<0.300	0.300	06/04/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1140	16.0	06/08/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2021	ND	196	98.2	200	1.10	
DRO >C10-C28*	11.2	10.0	06/04/2021	ND	203	102	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	06/04/2021	ND					

Surrogate: 1-Chlorooctane 75.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 74.9 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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**

Page 17 of 18

Company Name: Etech Environmental & Safety Solutions, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																			
Project Manager: Joel Lowry				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div>Chloride</div> <div>TPH (8015M)</div> <div>BTEX (8021B)</div> </div>																			
Address: P.O. Box 301				Company: COG																							
City: Lovington State: NM Zip: 88260				Attn:																							
Phone #: (575) 396-2378 Fax #: (575) 396-1429				Address:																							
Project #: 14256 Project Owner: COG				City:																							
Project Name: Save DA Federal 1 Tank Battery				State: Zip:																							
Project Location: 12.12085, -103.94555				Phone #:																							
Sampler Name: Leonel Mojica				Fax #:																							
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING																	
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													
H211430																											
1	NHS @ 0'-6"	G	1			x							6/3/21		x	x	x										
2	NHS @ 1'	G	1			x							6/3/21		x	x	x										
3	SHS @ 0'-6"	G	1			x							6/3/21		x	x	x										
4	SHS @ 1'	G	1			x							6/3/21		x	x	x										
5	EHS @ 0'-6"	G	1			x							6/3/21		x	x	x										
6	EHS @ 1'	G	1			x							6/3/21		x	x	x										
7	NHS @ 0'-6"	G	1			x				x			6/3/21		x	x	x										
8	NHS @ 1'	G	1			x				x			6/3/21		x	x	x										
9	SP 1 @ 0'-6"	G	1			x				x			6/3/21		x	x	x										
10	SP 1 @ 1'	G	1			x				x			6/3/21		x	x	x										
<p><small>PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</small></p>																											
Relinquished By:		Date: 6/3/21		Received By:		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:																			
Leonel Mojica		Time: 1653		Tamara Aldridge		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:																			
Relinquished By:		Date:		Received By:		REMARKS:																					
		Time:																									
Delivered By: (Circle One)				Sample Condition				CHECKED BY:				Please email results to pm@etechenv.com.															
Sampler - UPS - Bus - Other: 5.9c #113				Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				J.O.																			

FORM-006  
Revision 1.0

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



## CARDINAL LABORATORIES

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**(575) 393-2326 FAX (575) 393-2476**

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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---

June 09, 2021

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: SAVE DA FEDERAL 1 TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/08/21 14:39.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	06/08/2021	Sampling Date:	06/08/2021
Reported:	06/09/2021	Sampling Type:	Soil
Project Name:	SAVE DA FEDERAL 1 TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	14256	Sample Received By:	Jodi Henson
Project Location:	COG - 32.12085-103.99555		

**Sample ID: SP 1 @ 2' (H211476-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2021	ND	1.97	98.6	2.00	0.640	
Toluene*	<0.050	0.050	06/08/2021	ND	2.09	105	2.00	0.110	
Ethylbenzene*	<0.050	0.050	06/08/2021	ND	2.06	103	2.00	0.250	
Total Xylenes*	<0.150	0.150	06/08/2021	ND	6.20	103	6.00	0.637	
Total BTEX	<0.300	0.300	06/08/2021	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	368	16.0	06/09/2021	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	06/09/2021	ND	193	96.4	200	2.27	
DRO >C10-C28*	<10.0	10.0	06/09/2021	ND	193	96.6	200	4.70	
EXT DRO >C28-C36	<10.0	10.0	06/09/2021	ND					

Surrogate: 1-Chlorooctane 108 % 44.3-133

Surrogate: 1-Chlorooctadecane 103 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 06/08/2021  
 Reported: 06/09/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 2' (H211476-02)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/08/2021	ND	1.97	98.6	2.00	0.640		
Toluene*	<0.050	0.050	06/08/2021	ND	2.09	105	2.00	0.110		
Ethylbenzene*	<0.050	0.050	06/08/2021	ND	2.06	103	2.00	0.250		
Total Xylenes*	<0.150	0.150	06/08/2021	ND	6.20	103	6.00	0.637		
Total BTEx	<0.300	0.300	06/08/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	176	16.0	06/09/2021	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	06/08/2021	ND	193	96.4	200	2.27	
DRO >C10-C28*	<10.0	10.0	06/08/2021	ND	193	96.6	200	4.70	
EXT DRO >C28-C36	<10.0	10.0	06/08/2021	ND					

Surrogate: 1-Chlorooctane 84.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 83.3 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 06/08/2021  
 Reported: 06/09/2021  
 Project Name: SAVE DA FEDERAL 1 TANK BATTERY  
 Project Number: 14256  
 Project Location: COG - 32.12085-103.99555

Sampling Date: 06/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 @ 2' (H211476-03)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2021	ND	1.97	98.6	2.00	0.640	
Toluene*	<0.050	0.050	06/08/2021	ND	2.09	105	2.00	0.110	
Ethylbenzene*	<0.050	0.050	06/08/2021	ND	2.06	103	2.00	0.250	
Total Xylenes*	<0.150	0.150	06/08/2021	ND	6.20	103	6.00	0.637	
Total BTEx	<0.300	0.300	06/08/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	320	16.0	06/09/2021	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	06/09/2021	ND	190	95.1	200	0.599	
DRO >C10-C28*	<10.0	10.0	06/09/2021	ND	193	96.3	200	1.47	
EXT DRO >C28-C36	<10.0	10.0	06/09/2021	ND					

Surrogate: 1-Chlorooctane 84.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 82.1 % 38.9-142

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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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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

[illegible]

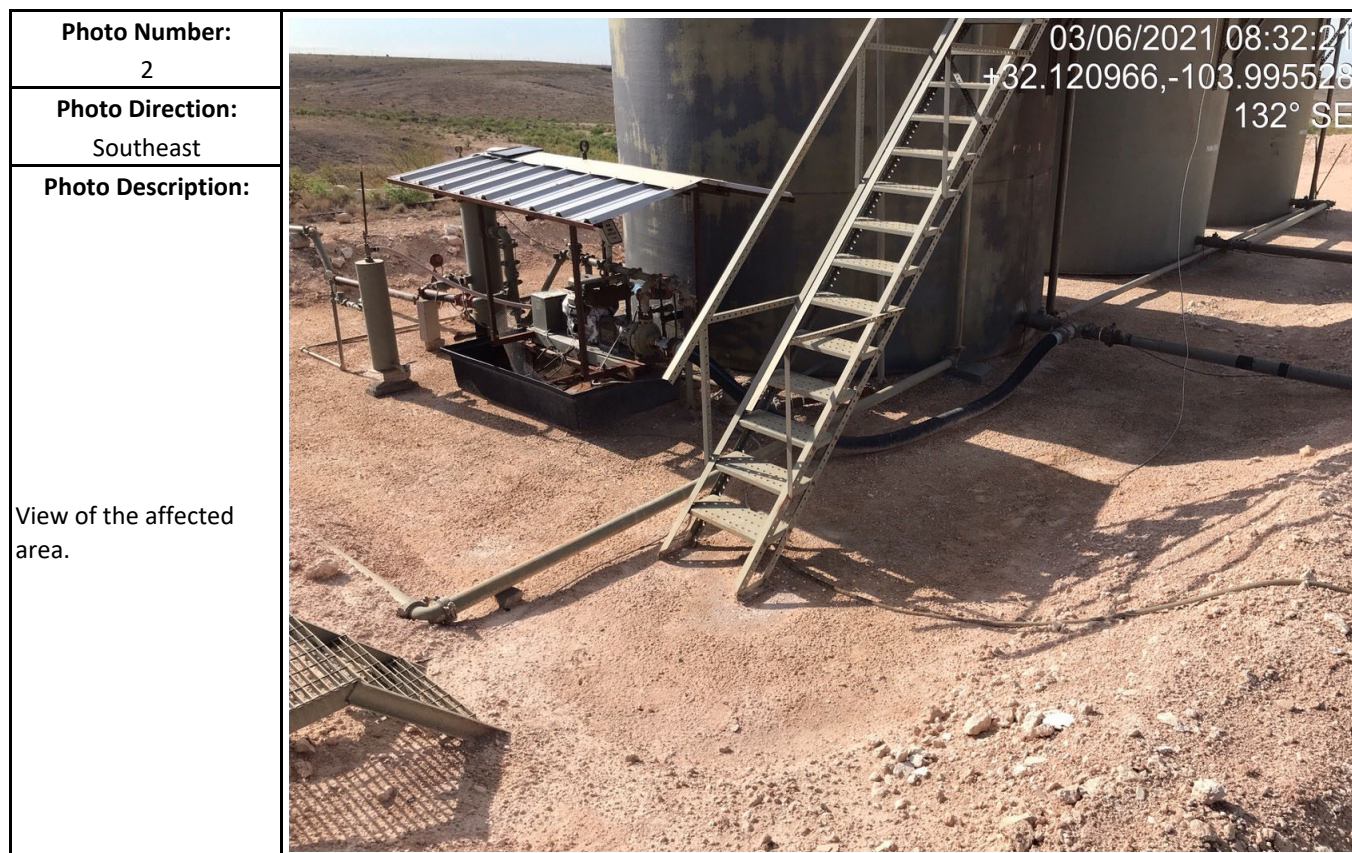
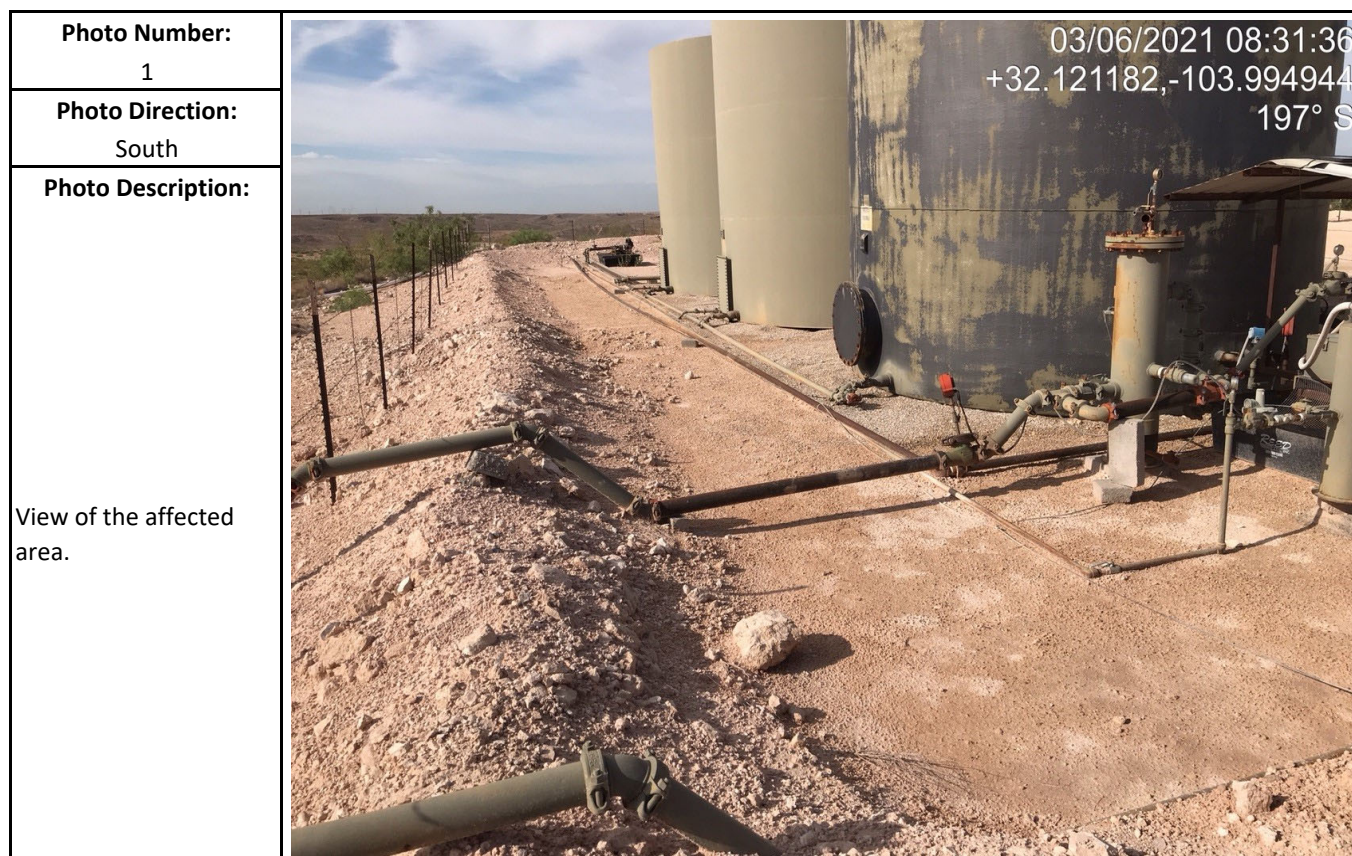
FORM-006  
Revision 1.0

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

## **Appendix D**

### **Photographic Log**

## Photographic Log



## Photographic Log

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

Incident ID	nAPP2102530060
District RP	
Facility ID	
Application ID	

## Remediation Plan

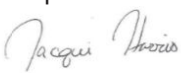
**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Jacqui Harris Title: Environmental Coordinator  
Signature:  Date: 6/22/2021  
email: jacqui.harris@conocophillips.com Telephone: (575)745-1807

**OCD Only**

Received by: Robert Hamlet Date: 9/21/2021

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature:  Date: 9/21/2021

**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 33083

**CONDITIONS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 33083
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. This release will need to be remediated to the strictest closure criteria of <50' depth to groundwater from Table 1 of the spill rule. Please make sure the edges/sidewalls and floor samples are delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg TPH. All sample points, except the requested sample points for deferral, must have contaminated soil removed before a deferral request is uploaded to the payment portal. The only remediation that should remain are the sample points that are being requested for deferral. Also, specify exactly which sample points you are asking for a deferral on and the reason the contaminants can't be removed.	9/21/2021