State of New Mexico
Oil Conservation Division

Incident ID	NAPP2102141155
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?	125 (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	NAPP2102141155
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: Jacqui Harris Date: 7/1/2021

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

OCD Only

Received by: Date:

Incident ID	NAPP2102141155
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: Jacqui Harris Date: 7/1/2021

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 BA 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. NAPP2102141155

Prepared By:

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

B. J. Arguijo

Joel W. Lowry

Environmental & Safety Solutions, Inc.

Midland • San Antonio • Lubbock • Lovington • Lafayette

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of COG Operating, LLC, has prepared this *Site Assessment Report, Proposed Remediation Plan & Deferral Request* for the release site known as the Save DA Federal 1 Tank Battery (henceforth, "Site"). Details of the release are summarized below:

Location of Release Source

Latitude: 32.12085 Longitude: -103.99555

Provided GPS are in WGS84 format.

Site Name:	Save BA Federal 1 Tank Battery	Site Type:	Tank Battery
Date Release Discovered:	1/8/2021	API # (if applicable):	30-015-34840

Unit Letter	Section	Township	Range	County
"D"	21	25S	29E	Eddy

Surface Owner: [ ] State [X] Federal [ ] Tribal [ ] Private (Name _____)

Nature and Volume of Release

[X] Crude Oil	Volume Released (bbls) 1	Volume Recovered (bbls) 0
[X] Produced Water	Volume Released (bbls) 10	Volume Recovered (bbls) 8
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/L?	[X] 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:
A water tank overflowed due to equipment failure. The release was confined to the containment area. A vacuum truck was dispatched to remove all freestanding fluids.

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?	125'
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) 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-)	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 decommisioning 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.

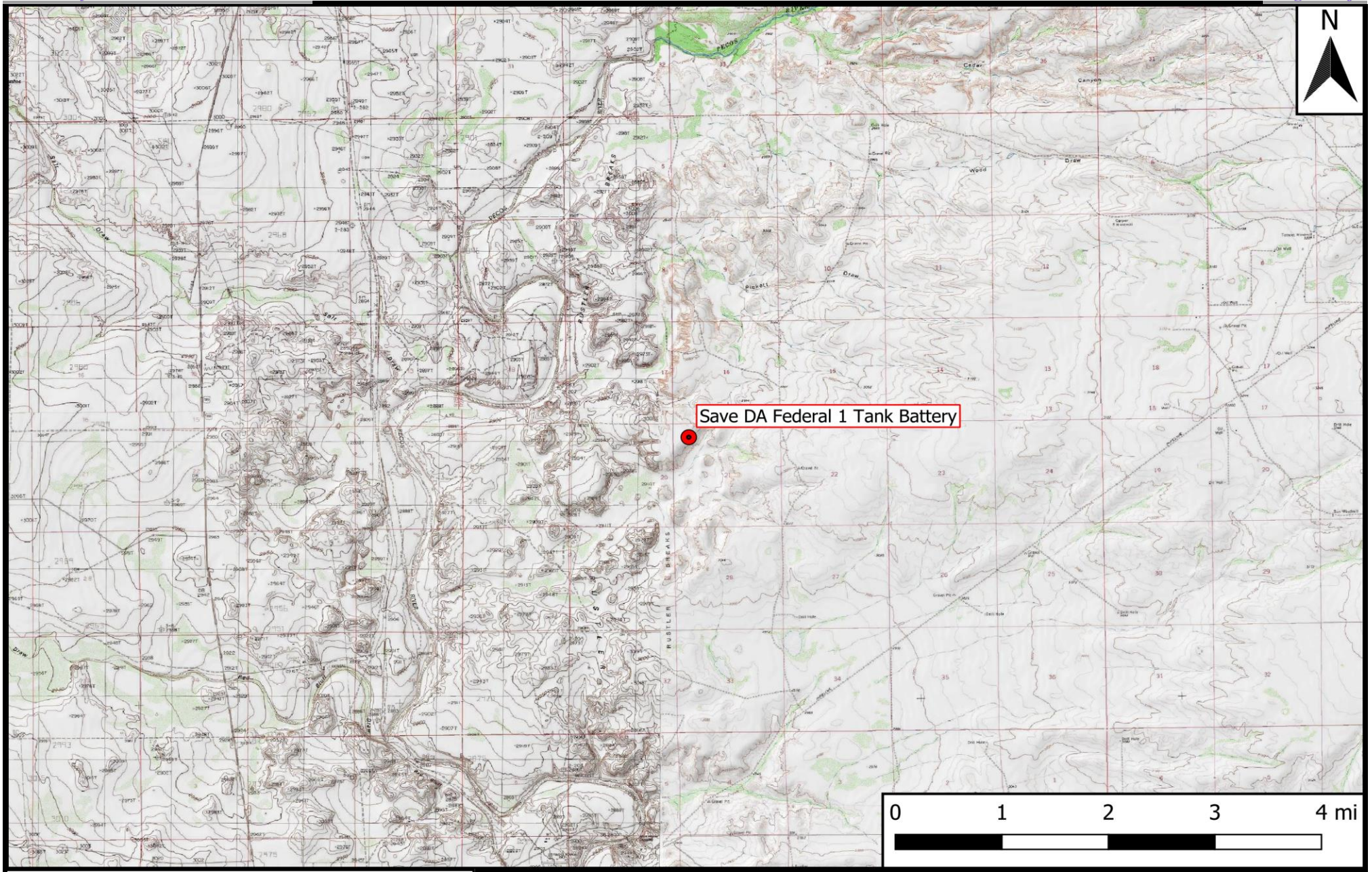
10.0 DISTRIBUTION

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 BA Federal 1 Tank Battery

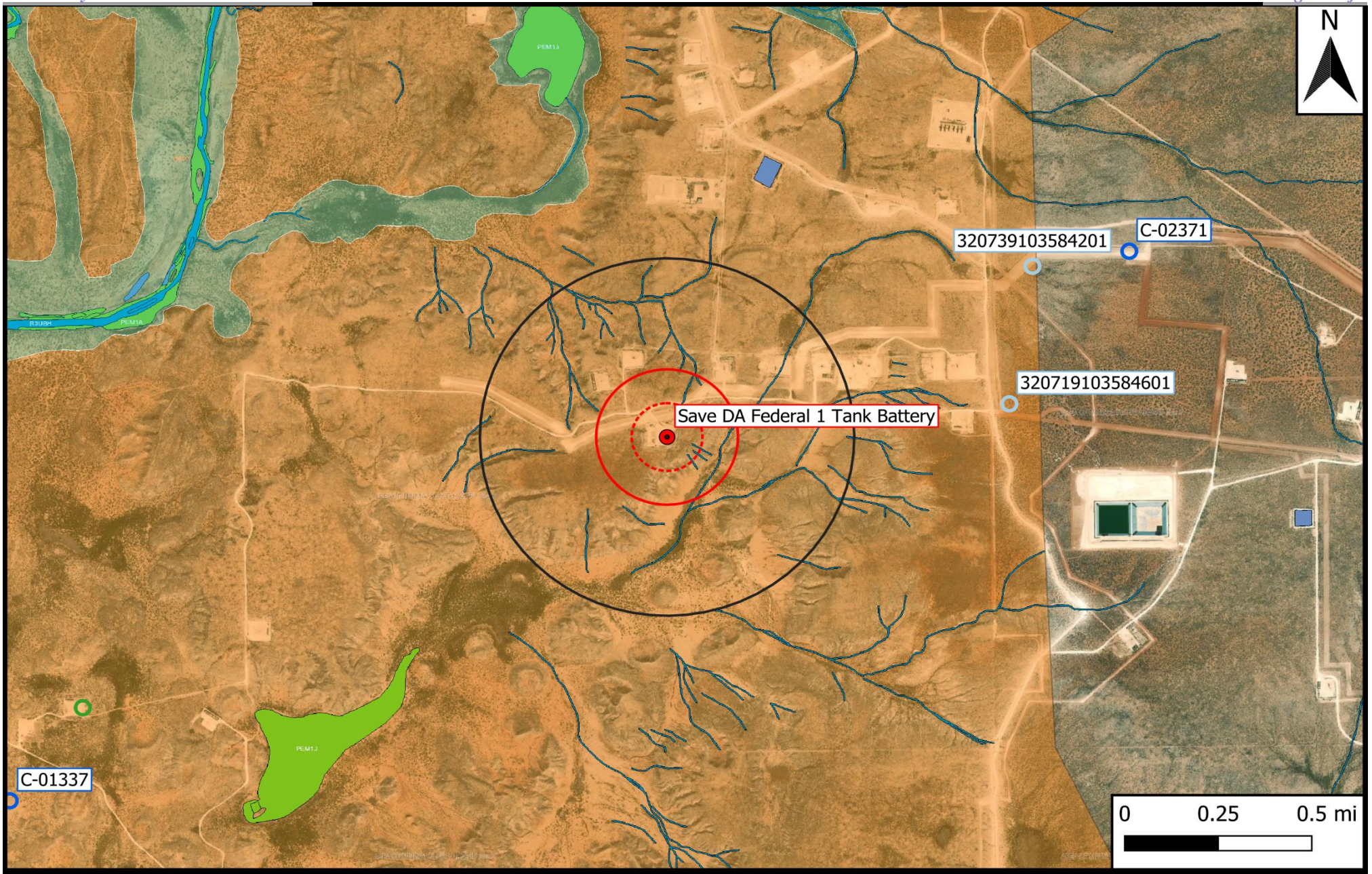
GPS: 32.12085, -103.99555

Eddy County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 6/3/21

Figure 2
Aerial Proximity Map



Legend

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

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 BA Federal 1 Tank Battery

GPS: 32.12085, -103.99555

Eddy County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja

Checked: jwl Date: 6/11/21

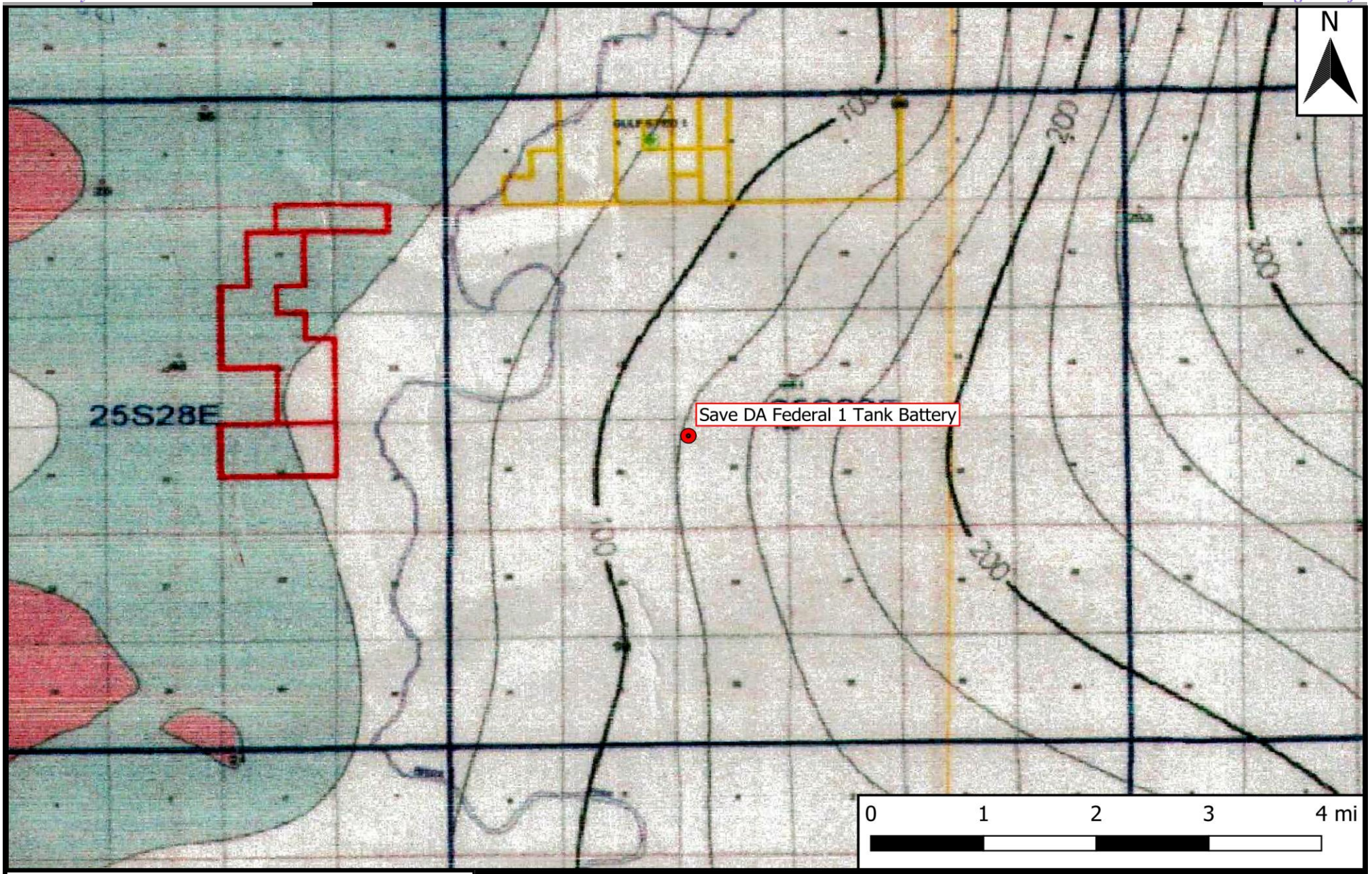
Table 1
Concentrations of BTEX, TPH & Chloride in Soil

Table 1
Concentrations of BTEX, TPH & Chloride in Soil
COG Operating, LLC
Save BA Federal 1 Tank Battery
NMOCD Ref. #: NAPP2102141155

NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
NMOCD Reclamation Standard				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
				SW 846 8021B		**SW 846 8015M Ext.**					**4500 Cl**
Sample ID	**Date**	**Depth (Feet)**	**Soil Status**	**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)**
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	**3,580**	**8,800**
SP 1 @ 1'	6/3/2021	1	In-Situ	<0.050	<0.300	<10.0	217	217	42.2	**259**	**1,800**
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	**2,600**
SP 2 @ 1'	6/3/2021	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	**2,680**
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	**199**	**4,400**
SP 3 @ 1'	6/3/2021	1	In-Situ	<0.050	<0.300	<10.0	11.2	11.2	<10.0	11.2	**1,140**
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 BA Federal 1 Tank Battery

GPS: 32.12085, -103.99555

Eddy County

eTECH Environmental & Safety Solutions, Inc.

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	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 04503 POD1		CUB	ED	4	3	3	09	25S	29E	594884	3556142	1874			
C 02371		C	ED		2	3	15	25S	29E	596741	3555106*	2155	200	60	140
C 02680		CUB	ED		2	3	15	25S	29E	596741	3555106*	2155	200		
C 02518		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

UTMNAD83 Radius Search (in meters):

Easting (X): 594753.14 **Northing (Y):** 3554272.77 **Radius:** 3220

***UTM location was derived from PLSS - see Help**

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
	C 02371		2	3	15	25S	29E	596741	3555106*

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

Driller Name: CAMPBELL, MICHAEL R.

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

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

Casing Perforations:	Top	Bottom
	140	200

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Twn	Rng	(NAD83 UTM in meters) X	Y
	C 02518	3	4		08	25S	29E	593895	3556300*

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:**	

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Twn	Rng	(NAD83 UTM in meters) X	Y
	C 02680	2	3		15	25S	29E	596741	3555106*

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:**	

***UTM location was derived from PLSS - see Help**

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	C 04503 POD1	4	3	3	09	25S	29E	594884	3556142

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

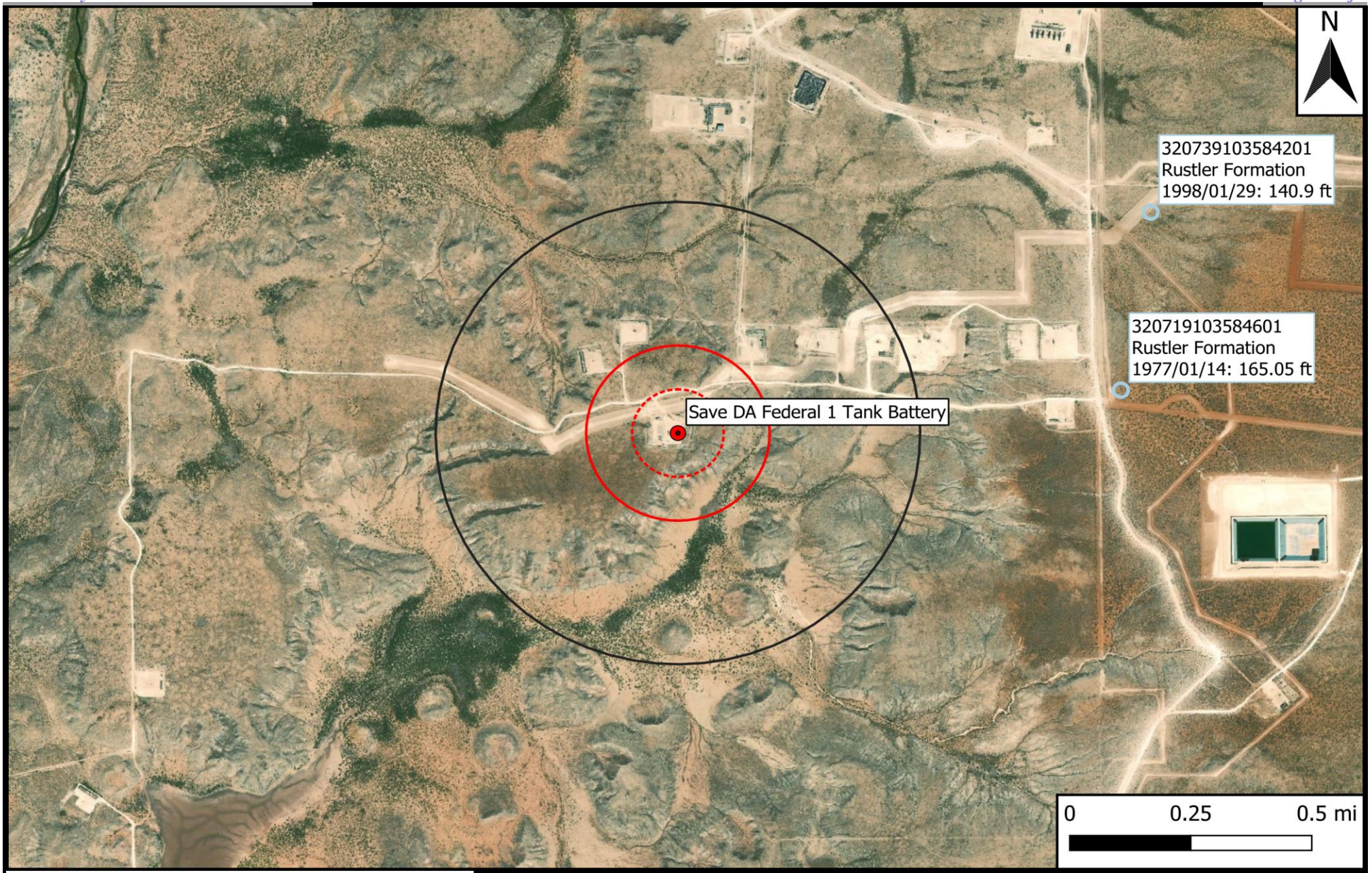
Driller Name: ATKINS, JACKIE D.UELENER

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:**



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 BA Federal 1 Tank Battery
GPS: 32.12085, -103.99555
Eddy County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 6/3/21

Click forNews Bulletins

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.

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: 2021-06-11 13:18:19 EDT
0.32 0.26 nadww02

Click forNews 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

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
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.

Appendix B
Field Data & Soil Profile Logs

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date: 6/3/21

Project: Save DA Federal 1 Tank Battery

Project Number: 14256 Latitude: 32.12085 Longitude: -103.99555

Sample ID	PID/Odor	Chloride Conc.	GPS
NHS @ 0"-6"	-	328	
NHS @ 1'	-	256	
SHS @ 0"-6"	-	368	
SHS @ 1'	-	196	
EHS @ 0"-6"	-	368	
EHS @ 1'	-	224	
WHS @ 0"-6"	-	292	
WHS @ 1'	-	196	
SP1 @ 0"-6"	-	7536	
SP1 @ 1'	-	1420	
SP2 @ 0"-6"	-	2472	
SP2 @ 1'	-	2472	
SP3 @ 0"-6"	-	3936	
SP3 @ 1'	-	1240	
SP1 @ 2'	-	416	
SP2 @ 2'	-	376	
SP3 @ 2'	-	416	

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

eTECH Environmental & Safety Solutions, Inc.

Soil Profile

Date: 6/7/24

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	Alluvial Topsoil
3 TD	Gypsum / Resident Rock
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	

Appendix C
Laboratory Analytical Reports

CARDINAL Laboratories

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 BA 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.

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
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 BA 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

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
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 BA 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 @ 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, 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	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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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: 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, SM4500Cl-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*

Cardinal Laboratories *=Accredited Analyte

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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: 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, SM4500Cl-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*

Cardinal Laboratories *=Accredited Analyte

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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: 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, SM4500Cl-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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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: 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, 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	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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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: 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, SM4500Cl-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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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: 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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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: 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, SM4500Cl-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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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: 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, SM4500Cl-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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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: 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, SM4500Cl-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

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
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 BA 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: 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, SM4500Cl-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*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

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.	BILL TO	
Project Manager:	Joel Lowry	P.O. #:	
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:	32.12085, -103.99555		Phone #:
Sampler Name:	Leonel Mojica		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	Chloride	TPH (8015M)	BTEX (8021B)
H211430																	
1	NHS @ 0"-6"	G	1			x					x		6/3/21		x	x	x
2	NHS @ 1'	G	1			x					x		6/3/21		x	x	x
3	SHS @ 0"-6"	G	1			x					x		6/3/21		x	x	x
4	SHS @ 1'	G	1			x					x		6/3/21		x	x	x
5	EHS @ 0"-6"	G	1			x					x		6/3/21		x	x	x
6	EHS @ 1'	G	1			x					x		6/3/21		x	x	x
7	WHS @ 0"-6"	G	1			x					x		6/3/21		x	x	x
8	WHS @ 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

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.

Relinquished By:	Date: 6/3/21	Received By:	Phone Result: ☐ Yes ☐ No	Add'l Phone #:	
Leonel Mojica	Time: 1653	Tamara Oldaker	Fax Result: ☐ Yes ☐ No	Add'l Fax #:	
Relinquished By:	Date:	Received By:	REMARKS:		
	Time:		Please email results to pm@etechenv.com.		

Delivered By: (Circle One)	Sample Condition	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other: 5.9c #113	Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	T.O.

FORM-006
Revision 1.0

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

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.	BILL TO	
Project Manager:	Joel Lowry	P.O. #:	
Address:	P.O. Box 301	Company:	COG
City:	Lovington	State: NM Zip: 88260	Attn:
Phone #:	(575) 396-2378	Fax #: (575) 396-1429	Address:
Project #:	142560	Project Owner: COG	City:
Project Name:	Sane OA Federal 1 Tank Battery		State: Zip:
Project Location:	32.12085 - 103.99555		Phone #:
Sampler Name:	Leonel Mojica		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	Chloride	TPH (8015M)	BTEX (8021B)
H211430																	
11	SP 2 @ 0"-6"	G	1			X					X		6/3/21		X	X	X
12	SP 2 @ 1' [redacted]	G	1			X					X		6/3/21		X	X	X
13	SP 3 @ 0"-6"	G	1			X					X		6/3/21		X	X	X
14	SP 3 @ 1'	G	1			X					X		6/3/21		X	X	X

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.

Relinquished By:	Date: 6/3/21	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Leonel Mojica	Time: 16:53	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		Please email results to pm@etechenv.com.

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 5.9c #113

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

CHECKED BY: (Initials) T.D.

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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

June 09, 2021

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: SAVE BA 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.

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
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 BA 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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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 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, SM4500Cl-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*

Cardinal Laboratories *=Accredited Analyte

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
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 BA 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 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, SM4500Cl-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*

Cardinal Laboratories *=Accredited Analyte

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

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.	BILL TO	
Project Manager:	Joel Lowry	P.O. #:	
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		State: Zip:
Project Location:	-		Phone #:
Sampler Name:	Leonel Mojica		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	Chloride	TPH (8015M)	BTEX (8021B)												
H211476																												
1	SP 1 @ 2'	G	1			X					X		6/8/21		X	X	X											
2	SP 2 @ 2'	G	1			X					X		6/8/21		X	X	X											
3	SP 3 @ 2'	G	1			X					X		6/8/21		X	X	X											

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.

Relinquished By:	Date: 6/8/21	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Leonel Mojica	Time: 14:39	Jodi Henson	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: RUSH
	Time:		Please email results to pm@etechenv.com.

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 4.3°C / #113

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

CHECKED BY: (Initials)

FORM-006
Revision 1.0

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

Appendix D
Photographic Log

Photographic Log

Photo Number: 1 **Photo Direction:** South **Photo Description:** View of the affected area.	

Photo Number: 2 **Photo Direction:** Southeast **Photo Description:** View of the affected area.	

Photographic Log

Photo Number: 3	
Photo Direction: North	
Photo Description: View of the affected area.	

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2102141155
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: Jacqui Harris Date: 7/1/2021

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

OCD Only

Received by: Robert Hamlet Date: 9/23/2021

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

Signature: Robert Hamlet Date: 9/23/2021

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 34595

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 34595
	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.	9/23/2021