



August 17, 2022

District Supervisor  
Oil Conservation Division, District 1  
1625 North French Drive  
Hobbs, New Mexico 88240

**Re: Release Characterization and Closure Report  
ConocoPhillips  
Battle Axe Central Tank Battery Release  
Unit Letter A, Section 27, Township 26 South, Range 32 East  
Lea County, New Mexico  
Incident ID# NCE2002452675**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips to assess a release that occurred from an equipment failure at the Battle Axe Central Tank Battery (CTB). The release footprint is located in Public Land Survey System (PLSS) Unit Letter A, Section 27, Township 26 South, Range 32 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.018301°, -103.656126°, as shown on Figures 1 and 2.

## BACKGROUND

According to the State of New Mexico Form C-141 Initial Report (Appendix A), the release was discovered on November 25, 2019. The release occurred as the result of a pin hole leak on a ball valve. Approximately 45.9 barrels (bbls) of produced water and 2.4 bbls of oil were reported released into lined secondary containment, of which all released fluids were recovered by vacuum trucks. The failed ball valve was replaced on November 25, 2019. Charles R. Beauvais II submitted the initial Form C-141 on January 9, 2020. The NMOCD rejected the initial C-141 on January 24, 2020. The release was assigned the Incident ID NCE2002452675.

The C-141 Initial Report was revised and submitted to the NMOCD on July 26, 2022, with fee application payment PO Number KAX12-220726-C-1410. The revised C-141 was approved by Jocelyn Harimon via email on July 26, 2022. The email correspondence is included in Appendix B.

## SITE CHARACTERIZATION

A site characterization was performed and no sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, stream bodies, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). The Site is in an area of medium to high karst potential.

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within ½ mile (800 meters) of the Site. There four (4) water well within 2,700 meters of the site with an average depth to groundwater of 240 feet below ground surface (bgs). The site characterization data is included in Appendix C.

Tetra Tech

901 West Wall St., Suite 100, Midland, TX 79701

Tel 432.682.4559

Fax 432.682.3946

www.tetrattech.com

## REGULATORY FRAMEWORK

Based upon the release footprint and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil.

Based on the relative absence of water wells within ½ mile of the Site, the strictest Table I closure criteria will be applied to this release area in lieu of drilling a boring for groundwater depth verification. Thus, based on the site characterization and in accordance with Table I of 19.15.29.12 NMAC, the RRALs for the Site are as follows:

:

Constituent	Site RRAL
Chloride	600 mg/kg
TPH (GRO+DRO+ORO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

## LINER INTEGRITY

In accordance with 19.15.29.11(A)(5)(a) NMAC, notification of a liner inspection at the Battle Axe CTB was sent via email to the NMOCD on July 1, 2022. The liner inspection notification email correspondence is included in Appendix B.

On July 5, 2022, Tetra Tech personnel performed an inspection of the liner within the secondary containment of the Battle Axe CTB. The liner was visually inspected by an experienced Tetra Tech scientist familiar with facility operations and battery inspections. The liner was observed to underlie the entirety of the tank battery secondary containment area. The liner was intact with no visible rips or tears and encompassed by a 2-foot-tall steel wall. The liner extended up the steel “muscle” wall. Based on photographs of the release area at the time that the release was discovered, the released fluids appear to have been contained within the muscle wall. Photographic documentation of the release area at the time of discovery and liner inspection is included in Appendix D.

## SITE ASSESSMENT SUMMARY AND SAMPLE RESULTS

Given the age of the release, in addition to the liner inspection, Tetra Tech personnel were on site on July 5, 2022 to conduct soil sampling to delineate the release horizontally using Table I of 19.15.29.12 NMAC constituents. This sampling was conducted to further demonstrate that the liner remained intact during the incident and had the ability to contain the leak in question. A total of four (4) hand auger borings (AH-1 through AH-4) were installed around the perimeter of the release extent as shown in Figure 3. The hand auger borings were installed to a depth of 3 feet bgs, and soil samples were collected at depth intervals 0-1' and 2-3' within each boring.

A total of eight (8) samples were collected from the four (4) borings and submitted to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico to be analyzed for TPH (GRO, DRO and EXT DRO) by EPA Method 8015M, BTEX by EPA Method 8021B, and chlorides by Standard Method SM4500Cl-B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix E.

Results from the July 2022 soil sampling event are summarized in Table 1. All analytical results associated with samples collected during the assessment activities were below Site RRALs. Horizontal delineation was achieved during the assessment.

Release Characterization and Closure Report  
August 17, 2022

ConocoPhillips

## CONCLUSION

Based on the results of the site assessment and liner inspection, ConocoPhillips respectfully requests closure of the subject incident. The release occurred within a lined containment area. The liner integrity demonstration is complete. The affected area of the liner has been visually inspected where the release occurred, and the liner remains intact and had the ability to contain the leak in question. Two business days' notice was provided to the appropriate division district office before conducting the liner inspection.

All analytical results associated with the horizontal delineation were below applicable Site RRALs. The release area occurring within the lined secondary containment at the site meets the standards of Table I of 19.15.29.11 NMAC as a result of the initial response remedial activities (vacuum trucks).

The final C-141 forms are enclosed in Appendix A. If you have any questions concerning the soil assessment activities or liner inspection for the Site, please call me at (512) 217-7254 or Christian at (512) 288-6281.

Sincerely,  
**Tetra Tech, Inc.**



Ryan C. Dickerson  
Project Manager



Christian M, Llull, P.G.  
Program Manager

cc:  
Mr. Sam Widmer, RMR – ConocoPhillips  
Mr. Charles Beauvais, GPBU - ConocoPhillips

## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Overview Map
- Figure 2 – Topographic Map
- Figure 3 – Approximate Release Extent and Site Assessment Map

### Tables:

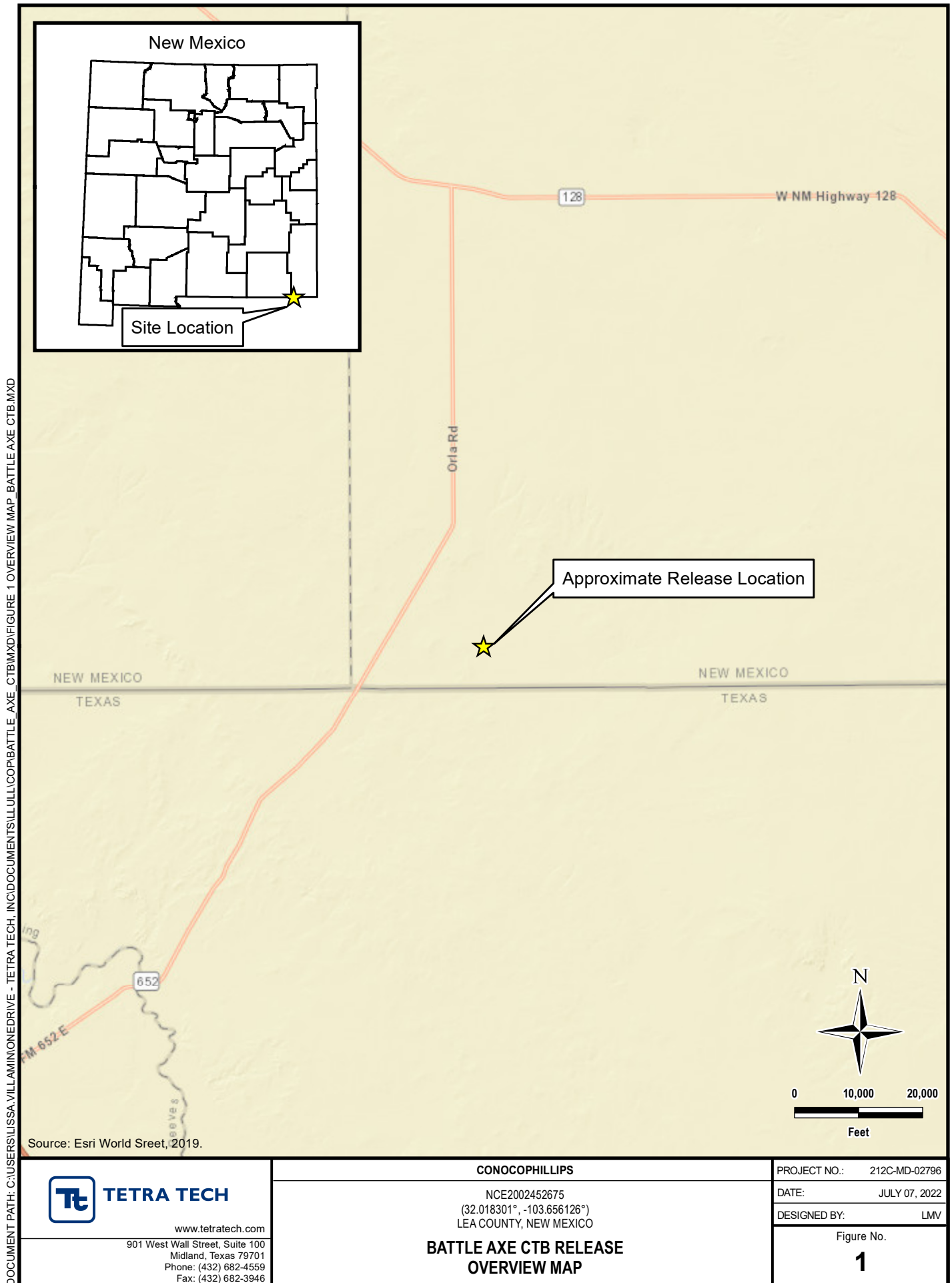
- Table 1 – Summary of Analytical Results – Soil Assessment

### Appendices:

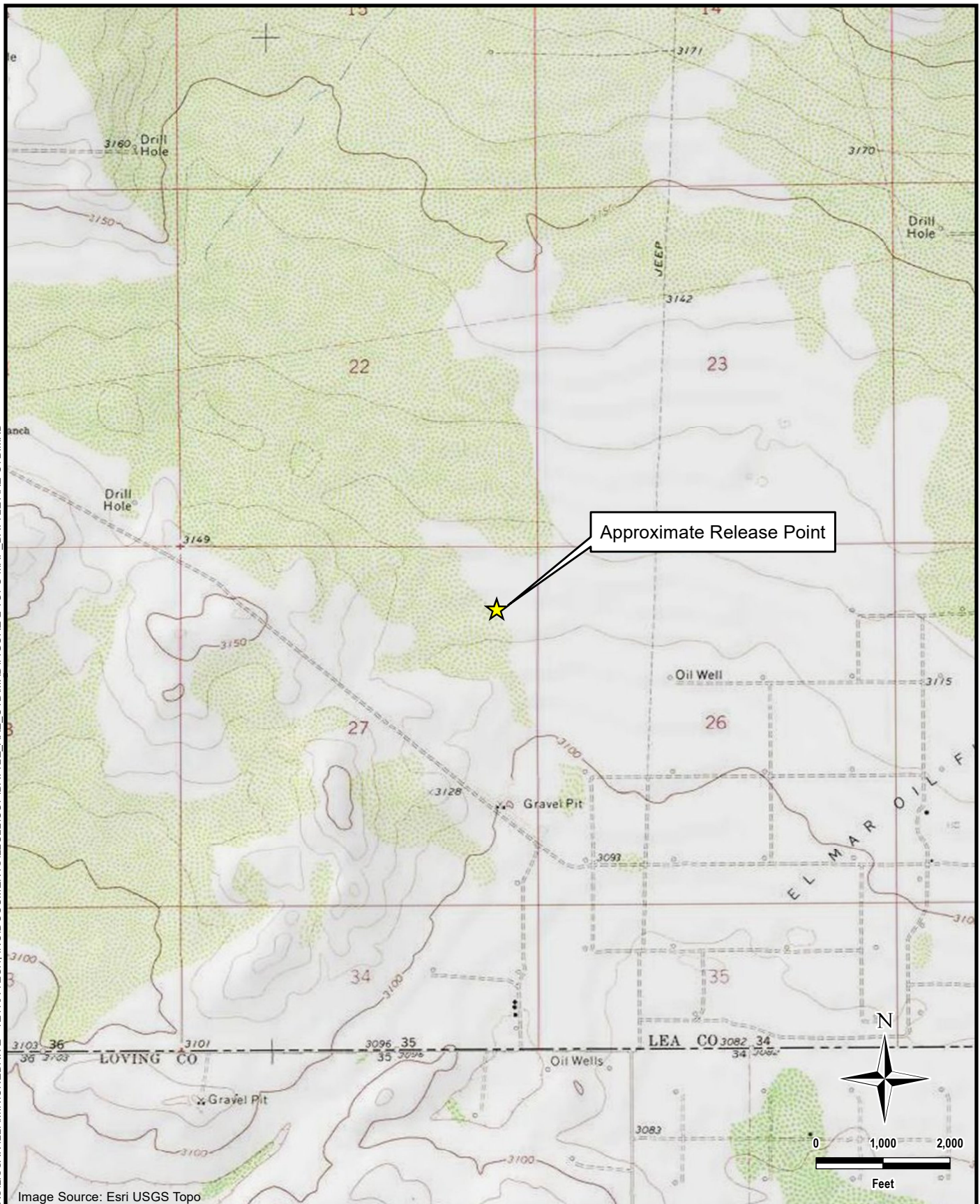
- Appendix A – C-141 Forms
- Appendix B – Regulatory Correspondence
- Appendix C – Site Characterization Data
- Appendix D – Photographic Documentation
- Appendix E – Laboratory Analytical Data



## **FIGURES**



DOCUMENT PATH: C:\USERS\LISSA.VILLAMONEDRIVE - TETRA TECH\INC\DOCUMENTS\ULL\COR\BATTLE AXE CTB\MXD\FIGURE 2 TOPO MAP - BATTLE AXE CTB.MXD

**TETRA TECH**

www.tetrattech.com

901 West Wall Street, Suite 100  
Midland, Texas 79701  
Phone: (432) 682-4559  
Fax: (432) 682-3946

**CONOCOPHILLIPS**

NCE2002452675  
(32.018301°, -103.656126°)  
LEA COUNTY, NEW MEXICO

**BATTLE AXE CTB RELEASE  
TOPOGRAPHIC MAP**

PROJECT NO.: 212C-MD-02796

DATE: JULY 07, 2022

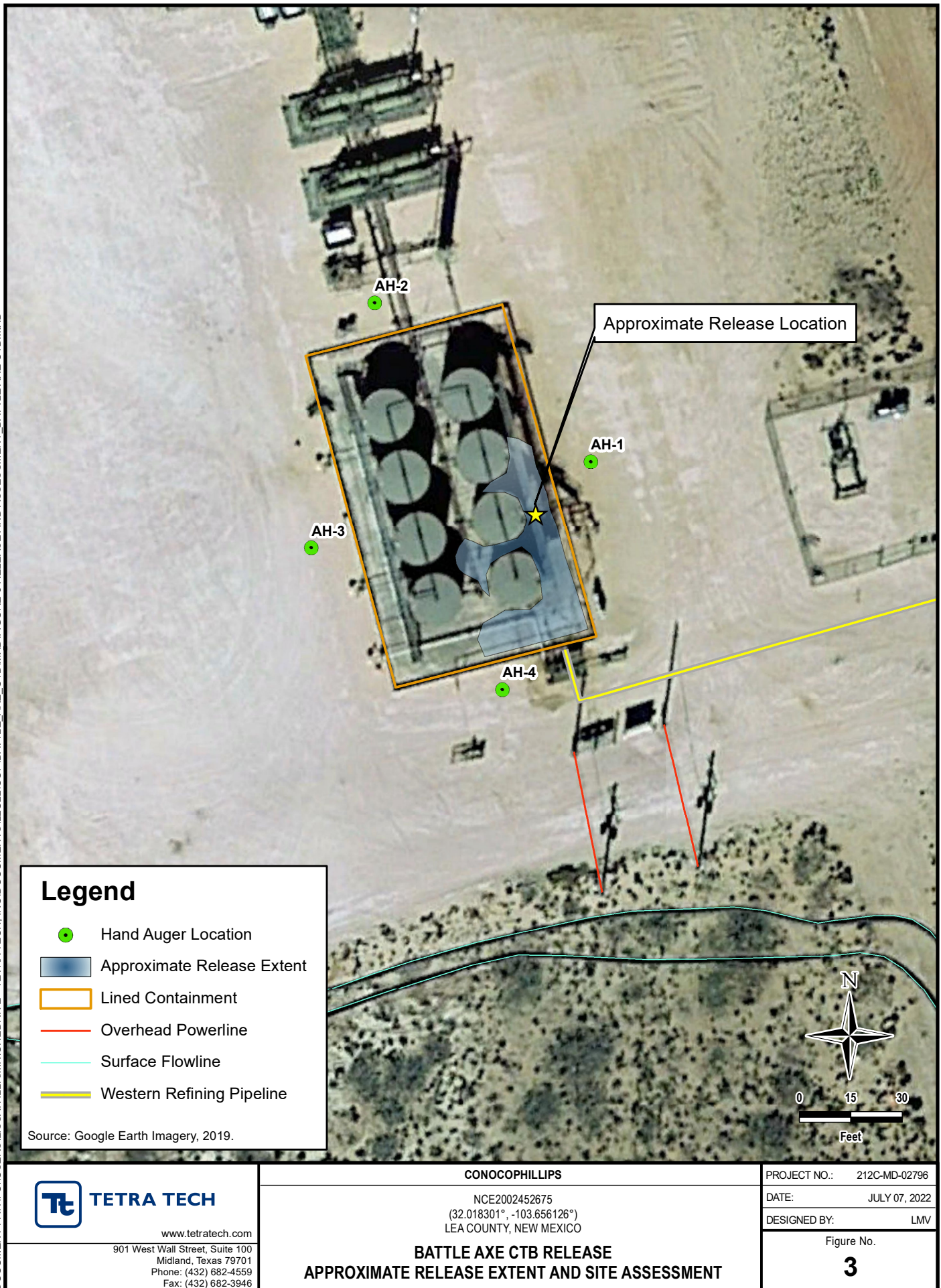
DESIGNED BY: LMV

Figure No.

**2**



DOCUMENT PATH: C:\USERS\LISSA.VILLAMONEDRIVE - TETRA TECH\INC\DOCUMENTS\ULLULL\CO\BATTLE\_AXE CTB\MXD\FIGURE 3 RELEASE AND ASSESSMENT - BATTLE AXE CTB.MXD



## **TABLE**

TABLE 1  
SUMMARY OF ANALYTICAL RESULTS  
SOIL ASSESSMENT- NCE2002452675  
CONOCOPHILLIPS  
BATTLE AXE TANK BATTERY RELEASE  
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride <sup>1</sup>		BTEX <sup>2</sup>										TPH <sup>3</sup>						
			Chloride	PID			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH
			ft. bgs	ppm	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	C <sub>6</sub> -C <sub>10</sub>	Q	> C <sub>10</sub> -C <sub>28</sub>	Q	> C <sub>28</sub> -C <sub>36</sub>	Q	(GRO+DRO+EXT DRO)
AH-1	7/5/2022	0-1	500	-	160		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	165	-	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0	QM-07, QR-03	< 10.0	QM-07, QR-03	< 10.0		-
AH-2	7/5/2022	0-1	218	-	208		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	125	-	96.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
AH-3	7/5/2022	0-1	491	-	96.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	95.0	-	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
AH-4	7/5/2022	0-1	316	-	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		2-3	155	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-

## NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

## QUALIFIERS:

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

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

## **APPENDIX A C-141 Forms**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NCE2002452675
District RP	
Facility ID	
Application ID	

A3V68-191125-C-1410

## Release Notification

### Responsible Party

Responsible Party	<b>ConocoPhillips</b>	OGRID	<b>217817</b>
Contact Name	<i>Charles R. Beauvais II</i>	Contact Telephone	<b>575-988-2043</b>
Contact email	<i>charles.r.beauvais@conocophillips.com</i>	Incident # (assigned by OCD)	
Contact mailing address	<i>15 W London Rd, Loving, NM 88256</i>		

### Location of Release Source

Latitude ~~32° 0' 49" N~~ **32.018301** Longitude ~~103° 40' 18" W~~ **-103.656126**  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	<b>Battle Axe CTB</b>	Site Type	<b>Water Transfer Line - On Pad - Over Secondary Containment</b>
Date Release Discovered	<b>11/25/2019</b>	API# (if applicable)	

Unit Letter	Section	Township	Range	County
<b>A</b>	<del>28</del> <b>27</b>	<b>26 S</b>	<b>32 E</b>	<b>Lea County</b>

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: **BLM**)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	<b>2.4 bbls</b>	Volume Recovered (bbls)	<b>2.4 bbls</b>
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	<b>45.9 bbls</b>	Volume Recovered (bbls)	<b>45.9 bbls</b>
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
<input type="checkbox"/> Condensate	Volume Released (bbls)	<b>0, NA</b>	Volume Recovered (bbls)	<b>0, N/A</b>
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	<b>0, NA</b>	Volume Recovered (Mcf)	<b>0, N/A</b>
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	<b>0, N/A</b>	Volume/Weight Recovered (provide units)	<b>0, N/A</b>

#### Cause of Release

*Ball valve developed a pin hole leak. Ball valve is being replaced and Lone Star was called out the vac out 100% of the release from secondary containment and place back in appropriate tank.*

*Repair made on 11/25/19, replaced ball valve*

*Remediation completed on 11/25/19, Secondary containment cleaned out w/ vac truck.*



Form C-141

State of New Mexico

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Oil Conservation Division

Incident ID	NCE2002452675
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? <b>19.15.29.7(A)(1)</b>  <i>An unauthorized release of a volume, excluding gases, of 25 barrels or more.</i>
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? <i>Notice was made by Charles Beauvais, Environmental Coordinator, at PM. on 11/25/19 via email to bradford.billings@state.nm. Also, an online submittal with payment for submittal was made to NMOC</i>	

### Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:   	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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: <u>Charles R. Beauvais II</u>	Title: <u>Environmental Coordinator</u>
Signature: <u><i>Charles R. Beauvais II</i></u>	Date: <u>11/25/2019</u>
email: <u>charles.r.beauvais@conocophillips.com</u>	Telephone: <u>1-575-988-2043</u>
<b>C-141 resubmitted with corrections via the payment portal on 7/26/2022. cml.</b>	
<b>OCD Only</b>	
Received by: <b>Rejected</b>	Date: <u>01/24/2020</u>

## L48 Spill Volume Estimate Form

Facility Name & Number:	Battle Axe Central Tank Battery											
Asset Area:	Delaware Basin											
Release Discovery Date & Time:	10/29/2019											
Release Type:	Oil Mixture											
Provide any known details about the event:	Ball valve leak inside lined secondary containment											
Spill Calculation - On Pad Surface Pool Spill												
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated <u>Pool</u> Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	56.0	10.0	3.00	1	560.000	0.250	24.920	0.013	25.232	4.96%	1.251	23.980
Rectangle B	22.0	11.0	3.00	1	242.000	0.250	10.769	0.013	10.904	4.96%	0.541	10.363
Rectangle C	22.0	10.0	3.00	1	220.000	0.250	9.790	0.013	9.912	4.96%	0.492	9.421
Rectangle D	7.0	7.0	3.00	1	49.000	0.250	2.181	0.013	2.208	4.96%	0.110	2.098
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle J					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Total Volume Release:									48.255		2.393	45.862

**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 128677

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 128677
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	7/26/2022

Incident ID	NCE2002452675
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

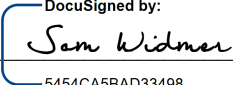
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, 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

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Incident ID	NCE2002452675
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Facility ID	
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Sam Widmer Title: Principal Program Manager  
Signature:  Date: Aug-15-2022  
email: Sam.widmer@conocophillips.com Telephone: 281-206-5298

**OCD Only**

Received by: Jocelyn Harimon Date: 08/17/2022

Incident ID	NCE2002452675
District RP	
Facility ID	
Application ID	

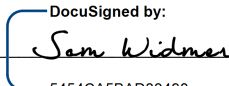
## Closure

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

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

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

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

Printed Name: Sam widmer Title: Principal Program Manager  
Signature:  Date: Aug-15-2022  
email: Sam.widmer@conocophillips.com Telephone: 281-206-5298

### OCD Only

Received by: Jocelyn Harimon Date: 08/17/2022

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

Closure Approved by:  Date: 08/18/2022  
Printed Name: Jennifer Nobui Title: Environmental Specialist A

## **APPENDIX B**

### **Regulatory Correspondence**

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Llull, Christian](#)  
**Subject:** The Oil Conservation Division (OCD) has approved the application, Application ID: 128677  
**Date:** Tuesday, July 26, 2022 10:53:49 AM

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

To whom it may concern (c/o Christian Llull for CONOCOPHILLIPS COMPANY),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nCE2002452675, with the following conditions:

- **None**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,  
Jocelyn Harimon  
Environmental Specialist  
575-748-1283  
[Jocelyn.Harimon@state.nm.us](mailto:Jocelyn.Harimon@state.nm.us)

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



**Dickerson, Ryan**

---

**From:** Llull, Christian  
**Sent:** Friday, July 1, 2022 1:41 PM  
**To:** ocd.enviro@state.nm.us  
**Cc:** Dickerson, Ryan  
**Subject:** Incident ID: NCE2002452675 - Liner Inspection

Incident ID (n#) **NCE2002452675** (Battle Axe CTB Release)

To whom it may concern,

In accordance with Subsection A of 19.15.29.11 NMAC, the responsible party must verbally notify the appropriate division district office prior to conducting the liner inspection.

Thus, on behalf of ConocoPhillips for the above referenced incident, Tetra Tech is duly providing this communication which serves as notification that a liner inspection will be conducted at this site on July 5, 2022.

**NOTE:** If you have any questions regarding this schedule, please contact me.

**Christian Llull, P.G.** | Program Manager  
Direct +1 (512) 338-2861 | Business +1 (512) 338-1667 | Fax +1 (512) 338-1331 | [christian.llull@tetrattech.com](mailto:christian.llull@tetrattech.com)

**Tetra Tech** | *Leading with Science®* | OGA  
8911 N. Capital of Texas Highway | Bldg. 2, Suite 2310 | Austin, TX 78759 | [tetrattech.com](http://tetrattech.com)

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## **APPENDIX C**

### **Site Characterization Data**



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

---

No records found.

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 626915.96

**Northing (Y):** 3543253.44

**Radius:** 800

---

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.

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7/8/22 11:13 AM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">C 02271</a>	R	CUB	LE	2	3	21	26S	32E		624449	3544111*	2611	150	125	25
<a href="#">C 03595 POD1</a>		CUB	LE	4	2	3	21	26S	32E	624423	3544045	2616	280	180	100
<a href="#">C 02271 POD2</a>		CUB	LE	3	2	3	21	26S	32E	624348	3544010*	2677	270	250	20
<a href="#">C 02323</a>	C	LE		3	2	3	21	26S	32E	624348	3544010*	2677	405	405	0

Average Depth to Water: **240 feet**

Minimum Depth: **125 feet**

Maximum Depth: **405 feet**

**Record Count:** 4

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

**Easting (X):** 626915.96

**Northing (Y):** 3543253.44

**Radius:** 2700

\*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.

7/8/22 11:15 AM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER

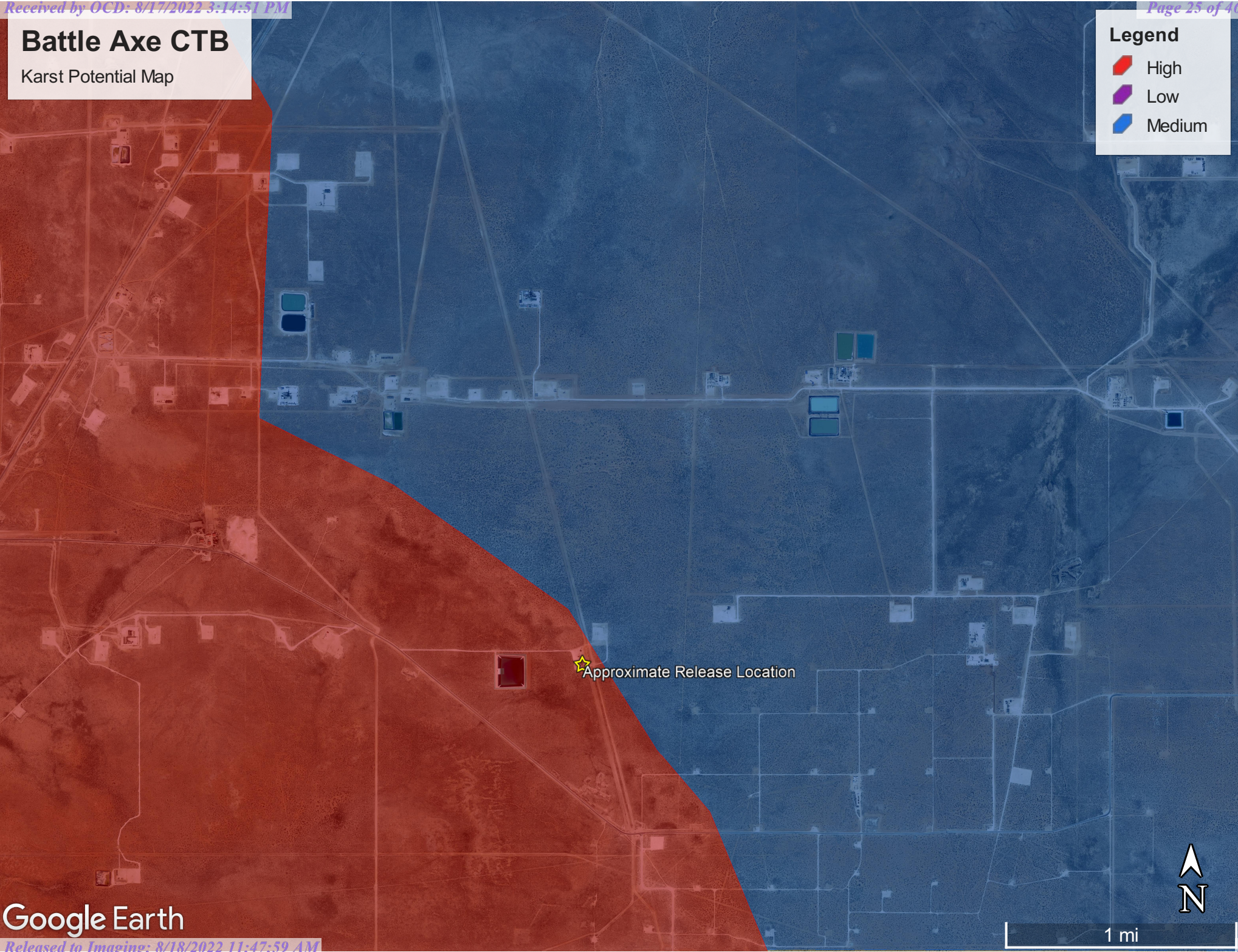


# Battle Axe CTB

Karst Potential Map

**Legend**

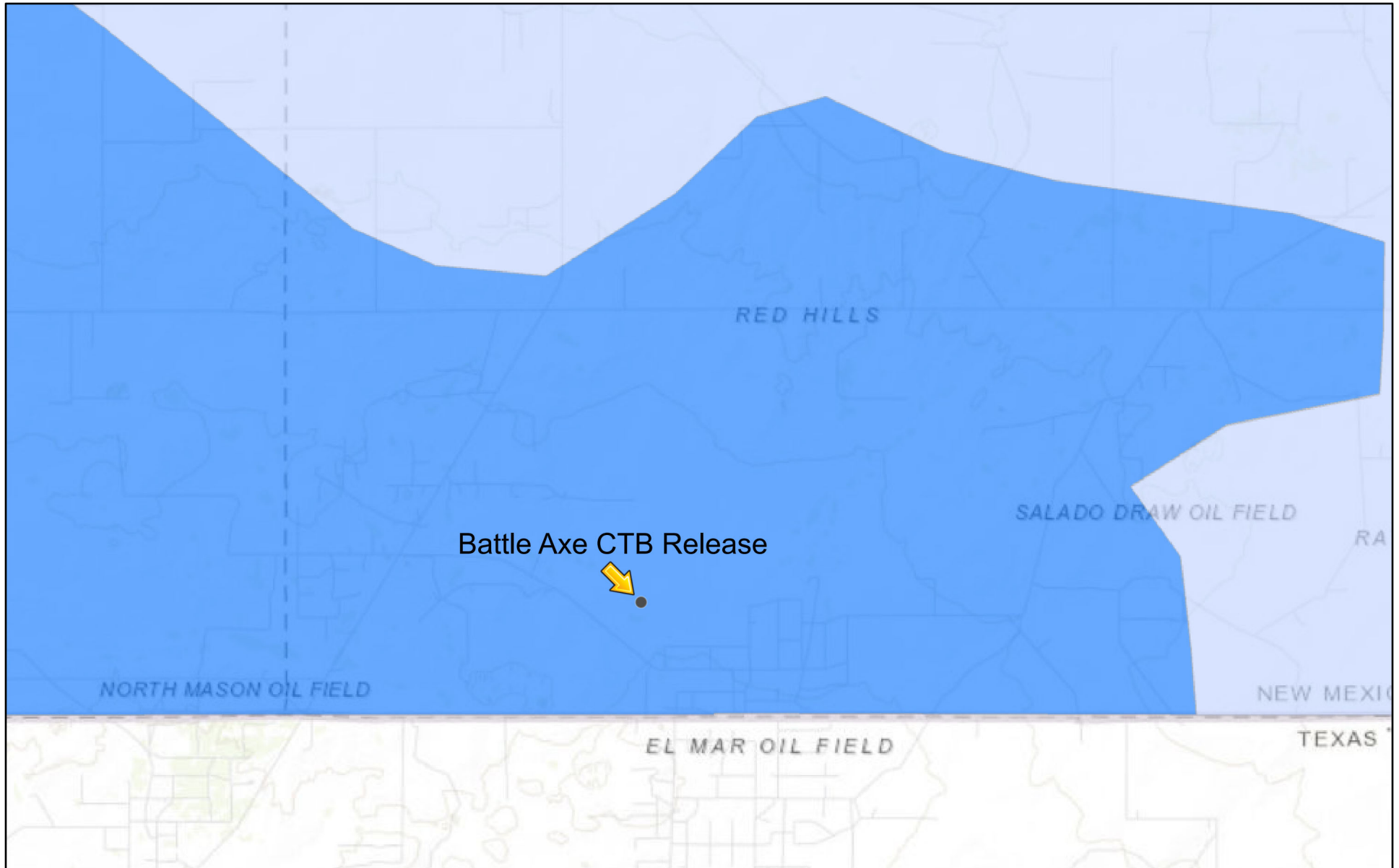
- High
- Low
- Medium



Google Earth



# Battle Axe CTB Release - NMOCD Karst Potential



7/8/2022, 1:19:06 PM



Override 1



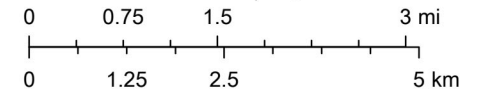
Low

Karst Occurrence Potential



Medium

1:114,279



Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS, BLM, OCD, New Mexico Tech

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>: New Mexico Oil Conservation Division

# Battle Axe CTB Release - NMOCD Waterbodies



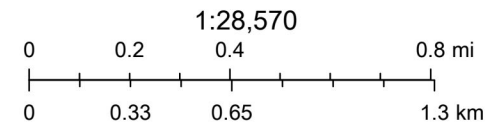
7/8/2022, 1:03:48 PM



Override 1



OSE Streams



Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, METI/NASA, EPA, USDA, NM OSE

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. <http://nm-ennrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>: New Mexico Oil Conservation Division

## **APPENDIX D**

# **Photographic Documentation**





TETRA TECH, INC. PROJECT NO. 212C-MD-02796	DESCRIPTION	Fluid being released on underside of ball valve fitting.	1
	SITE NAME	COP – Battle Axe CTB Release	11/29/2019



TETRA TECH, INC. PROJECT NO. 212C-MD-02796	DESCRIPTION	View south. Eastern portion of lined secondary containment immediately following discovery of release.	2
	SITE NAME	COP – Battle Axe CTB Release	11/29/2019

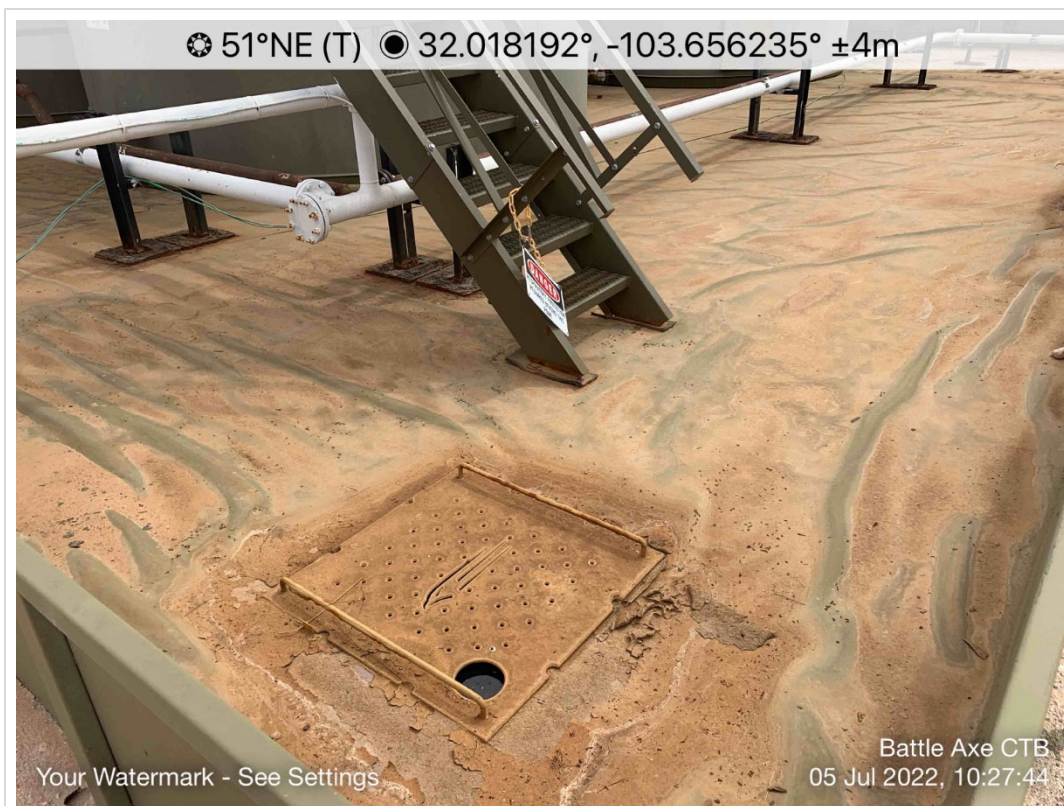


TETRA TECH, INC. PROJECT NO. 212C-MD-02796	DESCRIPTION	Failed ball valve at the time of release discovery.	3
	SITE NAME	COP – Battle Axe CTB Release	11/29/2019



TETRA TECH, INC. PROJECT NO. 212C-MD-02796	DESCRIPTION	View north. Western portion of the lined secondary containment during liner inspection.	4
	SITE NAME	COP – Battle Axe CTB Release	7/5/2022



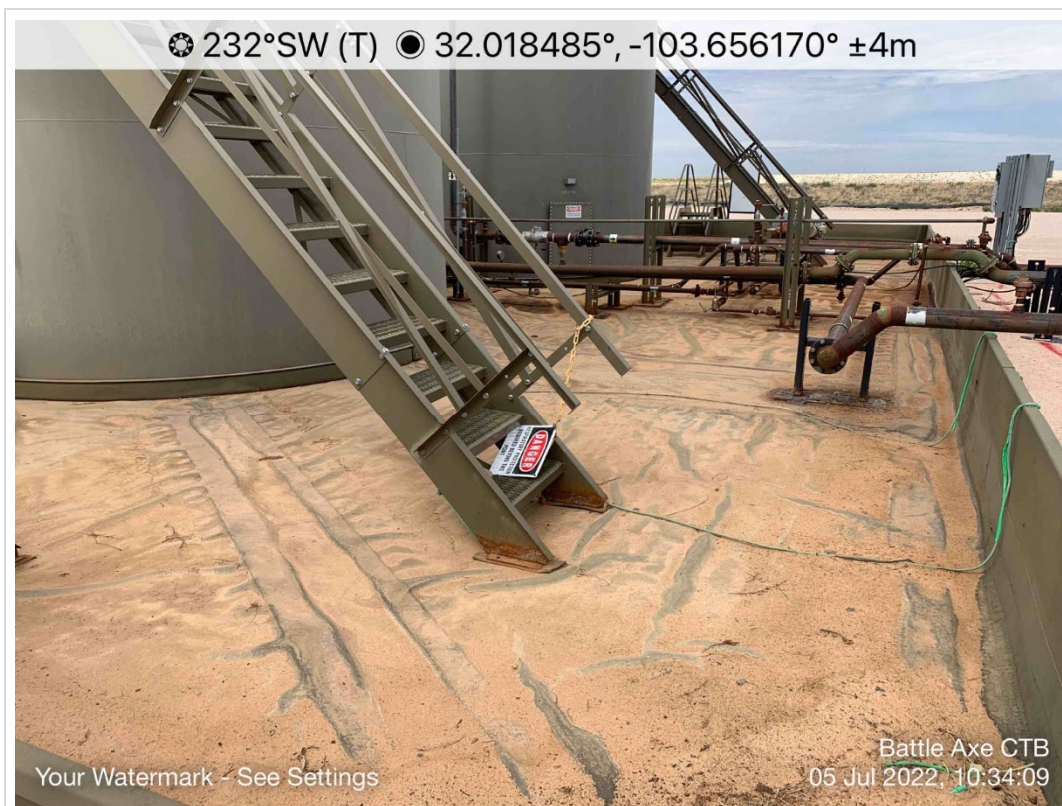


TETRA TECH, INC. PROJECT NO. 212C-MD-02796	DESCRIPTION	View northeast. Sump in the southwestern corner of the secondary containment during liner inspection.	5
	SITE NAME	COP – Battle Axe CTB Release	7/5/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02796	DESCRIPTION	View west. Replaced ball valve fitting.	6
	SITE NAME	COP – Battle Axe CTB Release	7/5/2022

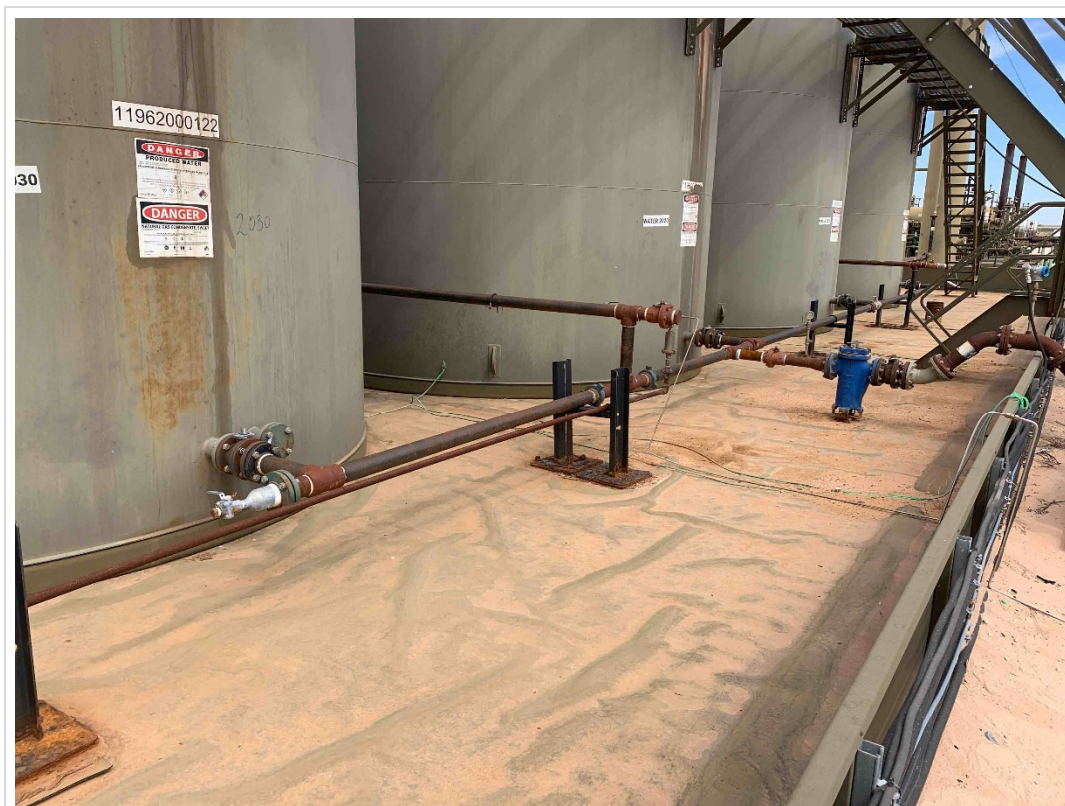




TETRA TECH, INC. PROJECT NO. 212C-MD-02796	DESCRIPTION	View west-southwest. Northern portion of lined secondary containment during liner inspection.	7
	SITE NAME	COP – Battle Axe CTB Release	7/5/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02796	DESCRIPTION	View southwest. Southern portion of lined secondary containment during liner inspection.	8
	SITE NAME	COP – Battle Axe CTB Release	7/5/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02796	DESCRIPTION	View northwest. Eastern portion of lined secondary containment during liner inspection.	9
	SITE NAME	COP – Battle Axe CTB Release	7/5/2022

## **APPENDIX E**

### **Laboratory Analytical Data**



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

---

July 08, 2022

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: BATTLE AXE

Enclosed are the results of analyses for samples received by the laboratory on 07/05/22 16:30.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/05/2022  
 Reported: 07/08/2022  
 Project Name: BATTLE AXE  
 Project Number: 212C-MD-02796  
 Project Location: COP - LEA CO NM

Sampling Date: 07/05/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: AH - 1 0-1' (H222864-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	1.96	98.0	2.00	4.74	
Toluene*	<0.050	0.050	07/08/2022	ND	2.05	102	2.00	6.36	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	1.97	98.3	2.00	5.91	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.64	111	6.00	6.12	
Total BTEX	<0.300	0.300	07/08/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	160	16.0	07/07/2022	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	186	92.9	200	1.52	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	192	95.8	200	0.447	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					

Surrogate: 1-Chlorooctane 79.2 % 43-149

Surrogate: 1-Chlorooctadecane 88.8 % 42.5-161

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/05/2022  
 Reported: 07/08/2022  
 Project Name: BATTLE AXE  
 Project Number: 212C-MD-02796  
 Project Location: COP - LEA CO NM

Sampling Date: 07/05/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: AH - 1 2-3' (H222864-02)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	1.96	98.0	2.00	4.74	
Toluene*	<0.050	0.050	07/08/2022	ND	2.05	102	2.00	6.36	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	1.97	98.3	2.00	5.91	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.64	111	6.00	6.12	
Total BTX	<0.300	0.300	07/08/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 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	16.0	16.0	07/07/2022	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	200	100	200	0.920	QM-07, QR-03
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	206	103	200	0.708	QM-07, QR-03
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					

Surrogate: 1-Chlorooctane 90.4 % 43-149

Surrogate: 1-Chlorooctadecane 105 % 42.5-161

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/05/2022  
 Reported: 07/08/2022  
 Project Name: BATTLE AXE  
 Project Number: 212C-MD-02796  
 Project Location: COP - LEA CO NM

Sampling Date: 07/05/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: AH - 2 0-1' (H222864-03)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	1.96	98.0	2.00	4.74	
Toluene*	<0.050	0.050	07/08/2022	ND	2.05	102	2.00	6.36	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	1.97	98.3	2.00	5.91	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.64	111	6.00	6.12	
Total BTX	<0.300	0.300	07/08/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 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	208	16.0	07/07/2022	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	200	100	200	0.920	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	206	103	200	0.708	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					

Surrogate: 1-Chlorooctane 88.7 % 43-149

Surrogate: 1-Chlorooctadecane 103 % 42.5-161

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/05/2022  
 Reported: 07/08/2022  
 Project Name: BATTLE AXE  
 Project Number: 212C-MD-02796  
 Project Location: COP - LEA CO NM

Sampling Date: 07/05/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: AH - 2 2-3' (H222864-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/08/2022	ND	1.96	98.0	2.00	4.74		
Toluene*	<0.050	0.050	07/08/2022	ND	2.05	102	2.00	6.36		
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	1.97	98.3	2.00	5.91		
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.64	111	6.00	6.12		
Total BTEx	<0.300	0.300	07/08/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	96.0	16.0	07/07/2022	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	200	100	200	0.920	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	206	103	200	0.708	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					

Surrogate: 1-Chlorooctane 90.7 % 43-149

Surrogate: 1-Chlorooctadecane 106 % 42.5-161

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/05/2022  
 Reported: 07/08/2022  
 Project Name: BATTLE AXE  
 Project Number: 212C-MD-02796  
 Project Location: COP - LEA CO NM

Sampling Date: 07/05/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: AH - 3 0-1' (H222864-05)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/08/2022	ND	1.96	98.0	2.00	4.74		
Toluene*	<0.050	0.050	07/08/2022	ND	2.05	102	2.00	6.36		
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	1.97	98.3	2.00	5.91		
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.64	111	6.00	6.12		
Total BTX	<0.300	0.300	07/08/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 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	96.0	16.0	07/07/2022	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	200	100	200	0.920	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	206	103	200	0.708	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					

Surrogate: 1-Chlorooctane 85.0 % 43-149

Surrogate: 1-Chlorooctadecane 99.3 % 42.5-161

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/05/2022  
 Reported: 07/08/2022  
 Project Name: BATTLE AXE  
 Project Number: 212C-MD-02796  
 Project Location: COP - LEA CO NM

Sampling Date: 07/05/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: AH - 3 2-3' (H222864-06)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	1.96	98.0	2.00	4.74	
Toluene*	<0.050	0.050	07/08/2022	ND	2.05	102	2.00	6.36	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	1.97	98.3	2.00	5.91	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.64	111	6.00	6.12	
Total BTX	<0.300	0.300	07/08/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 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	<16.0	16.0	07/07/2022	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	200	100	200	0.920	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	206	103	200	0.708	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					

Surrogate: 1-Chlorooctane 91.8 % 43-149

Surrogate: 1-Chlorooctadecane 108 % 42.5-161

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/05/2022  
 Reported: 07/08/2022  
 Project Name: BATTLE AXE  
 Project Number: 212C-MD-02796  
 Project Location: COP - LEA CO NM

Sampling Date: 07/05/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: AH - 4 0-1' (H222864-07)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2022	ND	2.27	113	2.00	7.01	
Toluene*	<0.050	0.050	07/06/2022	ND	2.25	112	2.00	7.73	
Ethylbenzene*	<0.050	0.050	07/06/2022	ND	2.24	112	2.00	7.36	
Total Xylenes*	<0.150	0.150	07/06/2022	ND	6.78	113	6.00	6.30	
Total BTX	<0.300	0.300	07/06/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 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	48.0	16.0	07/07/2022	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	200	100	200	0.920	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	206	103	200	0.708	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					

Surrogate: 1-Chlorooctane 83.8 % 43-149

Surrogate: 1-Chlorooctadecane 97.6 % 42.5-161

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 CHRISTIAN LLULL  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/05/2022  
 Reported: 07/08/2022  
 Project Name: BATTLE AXE  
 Project Number: 212C-MD-02796  
 Project Location: COP - LEA CO NM

Sampling Date: 07/05/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: AH - 4 2-3' (H222864-08)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/06/2022	ND	2.27	113	2.00	7.01		
Toluene*	<0.050	0.050	07/06/2022	ND	2.25	112	2.00	7.73		
Ethylbenzene*	<0.050	0.050	07/06/2022	ND	2.24	112	2.00	7.36		
Total Xylenes*	<0.150	0.150	07/06/2022	ND	6.78	113	6.00	6.30		
Total BTEx	<0.300	0.300	07/06/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 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	32.0	16.0	07/07/2022	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	200	100	200	0.920	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	206	103	200	0.708	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					

Surrogate: 1-Chlorooctane 86.1 % 43-149

Surrogate: 1-Chlorooctadecane 101 % 42.5-161

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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.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

**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 135176

**CONDITIONS**

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 135176
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
jnobui	Closure Report Approved. This report was submitted 33 months after the release date. Closure reporting needs to be submitted 90 days after release date or file extensions.	8/18/2022