



DAVID FEATHER  
ENVIRONMENTAL SUPERVISOR  
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October 29, 2019

Mr. Bradford Billings  
State of New Mexico Oil Conservation Division  
1220 South St Francis Drive  
Santa Fe, NM 87505

RE: 1RP-1644 NEDU 807

Mr. Billings,

In compliance with 19.15.29.15(B) NMAC and the agreement submitted by Apache Corporation on November 8, 2018, Apache Corporation is submitting information related to closure for the release occurring September 18, 2003. Apache is respectfully submitting the closure report based on studies occurring in 2019 that demonstrate the site meeting the requirements of the agency. Unless further information is requested by NMOCD, Apache Corporation considers this release closed.

If there are any questions, please feel free to contact me by telephone at 432-818-1615 or by e-mail at David.Feather@ApacheCorp.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Feather'.

David Feather  
Environmental Supervisor  
Apache Corporation - Permian Basin Region

Attachment: Closure Report Dated October 29, 2019

## Trinity Oilfield Services & Rentals, LLC

Company: Apache Corporation Address: 2530 W Marland St., Hobbs, NM 88240 Telephone #: (575) 393 7106

Site Name: Northeast Drinkard Unit 807 (NEDU 807) NMOCD Reference#: IRP 1644

Surface Owner: Charlie Bettis Mineral Owner: Unknown

Unit Letter: G Section: 22 Township: T21S Range: R37E County: Lea

GPS Coordinates: 32.464944 N, -103.1489361 W

Date/Time of Release: 9/8/2003 Type of Release: Crude Oil X Produced Water

Volume(s) Released: 1,200 bbl Volume(s) Recovered: 0.0 bbl

Closure Criteria for Impacted Soil (mg/kg; See Appendix F, "Closure Criteria Justification"):

Benzene: <u>10</u>	BTEX: <u>50</u>	GRO+DRO: <u>100</u>	TPH: <u>100</u>	Chloride: <u>600</u>
			<u>X</u> <u>2,500</u>	<u>X</u> <u>10,000</u>
				<u>20,000</u>

### Background Information:

On September 18, 2003, Apache Corporation (Apache) discovered a release at an 8-inch diameter steel produced water gathering line. An estimated 1,200 barrels (bbls) of produced water was released to a well pad and pasture area. An estimated 98,826 square feet (sq. ft.) of pad and pasture area were impacted by the release. None of the released water was recovered. It was determined that the line failed due to internal corrosion and the line was subsequently repaired.

The release was reported to the New Mexico Oil Conservation Division's (NMOCD) Hobbs District Office on September 18, 2003. A "Site Location Map" is provided as Figure 1. The initial NMOCD "Release Notification and Corrective Action" form (C-141) is provided as Appendix A. The final C-141 form is provided in Appendix B.

Environmental Plus, Inc. was contracted by Apache to perform environmental investigation and remedial tasks for the site. Three soil borings were sampled for chloride and Total Petroleum Hydrocarbons (TPH) for laboratory analysis in September 2003 per provided historical information (Appendix C).

No new activity occurred on site until April 2005 when a grid for chloride sampling was established over the release area. Location of this grid was not available in the historic information provided to Trinity. It is assumed that all the samples were analyzed at an NMOCD approved analytical laboratory.

During February 2006 a drill was deployed to the site for additional sampling. A total of 16 chloride samples were analyzed using both field and laboratory methods. Additionally, five benzene, ethylbenzene, toluene and xylenes (BTEX) and four TPH samples were collected for analysis. These historical results are not available for this report. It is assumed that all laboratory tests were conducted at an NMOCD approved analytical laboratory.

Remedial activities were initiated in October 2006 per provided historical documentation. A total of 540 cubic yards (cu. yds.) of soil were excavated and shipped to an approved waste disposal facility for compliant disposal. Samples of backfill material were collected and the backfill source was determined to be clean. The backfill samples were tested for field Photo Ionization Device (PID), field and laboratory Chloride, plus laboratory BTEX and TPH. The analysis for the backfill material is not available for this

report. A total of 4,160 cu. yds. of soil were hauled to the site and was utilized in backfilling and soil blending. The site was restored to approximate original contour and apparently was reseeded with a native mix. Photos of the restored impacted area show that vegetation has re-established across the site (see Appendix D). Again, it is assumed that all laboratory tests were conducted at an NMOCD approved analytical laboratory.

A sampling event for chloride occurred in March of 2008 per historic documentation. Two sample locations are identified from a historical laboratory report. No location map for the samples is available. Soil samples for chlorides were collected at 5-foot intervals (5 ft, 10ft, 15ft, and 20ft) to a depth of 20 feet at SP-2 and tested at a NMOCD approved analytical laboratory. Trinity is unsure of the meaning of the T2 versus T12 designation for the samples. The existing historical laboratory information is provided as Table 1. It is the only laboratory information available for historical actions at the site. The historical remedial efforts and historical lab reports including the chains of custody are included in Appendix C – Available Historic Information.

*No other information regarding historical remedial action is available for this site. No historic photography of the release and any remedial activity at the site are available.*

On July 25, 2019, Apache requested that Trinity Oilfield Services and Rentals, LLC (Trinity), assume any remaining remediation and reporting activities for the site.

#### **Summary of Trinity Field Activities:**

On August 22, 2019, Trinity mobilized a sampling crew to assess the current conditions at the NEDU 807 site. A stainless-steel spatula was utilized to collect surface samples while a hand auger was utilized to collect soil samples at one-foot intervals to a depth of 5 feet at locations SP-1 through SP-6. A total of 36 samples were collected from six sampling locations. The location of the six sample points is shown in Figure 2.

All samples were tested for chloride. Ext. TPH and BTEX was tested in samples collected at the one-foot, three-foot and five-foot intervals. All samples were tested at Cardinal Laboratories of Hobbs, NM, a NMOCD approved analytical laboratory using United States Environmental Protection Agency (USEPA) Methods 4500-Cl B for chloride, SW 846-8015 Mod for TPH [including extended diesel range organics (EX DRO)] and SW 846-8021B for BTEX. Results of analyses for these samples is provided in Table 2.

Laboratory analytical results (Appendix E) indicate BTEX and TPH/EXT DRO constituent concentrations were below the Laboratory method detection limit (MDL) in all submitted soil samples. Chloride concentrations ranged from below the MDL to 48 mg/kg in all samples submitted to the laboratory.

All sample locations appear to be at approximately the same points at the chloride sampling points tested by others in 2008.

Photography of current site conditions is provided as Appendix D.

## Site Closure Request

Soil Samples collected from the inferred impacted area were analyzed by a NMOCD approved laboratory. Concentrations of Chloride, TPH and BTEX were below the closure criteria listed in Table 1 of Section 19.15.29.12 of the New Mexico Administrative Code (NMAC) for a site where the depth to groundwater is between 50 and 100 feet bgs. The depth to groundwater (See Appendix F, "Closure Criteria Justification" for more information). Based on these laboratory analytical results, the initial response and subsequent actions conducted at the site during the period between 2008 and 2019 were effective in remediating the release. Trinity on behalf of Apache, hereby requests that the NMOCD grant closure to the NEDU 807 release site as represented by IRP-1644.

## Attachments

Table 1 Historic Lab Results

Table 2 Trinity Lab Results

Table 3 Closure Criteria Table

Figure 1: Site Location Map - NEDU 807

Figure 2: Sample Location Map – Trinity

Figure 3: Sample Location Map – Historic Overlay

Figure 4: Depth to Groundwater Trend Map

Figure 5: Vicinity and Wellhead Protection Area Map

## Appendices

Appendix A: C-141 Initial

Appendix B: C-141 Final

Appendix C: Available Historic Documentation

Appendix D: Site Photos of Current Conditions

Appendix E: Laboratory results

Appendix F: Closure Criteria Justification

# TABLES

**TABLE 1 (Historic)**  
**APACHE NEDU 807**  
 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	EPA SW-846 Method 8021B					EPA SW-846 Method 8015M				4500-Cl B
				BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYLBENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	TOTAL BTEX (mg/kg)	GRO C6-C10 (mg/kg)	DRO C10-C28 (mg/kg)	EXT DRO C28-C36 (mg/kg)	TPH C6-C35 (mg/kg)	CHLORIDE (mg/kg)
NMOCD Closure Limits (mg/kg)				10	NE	NE	NE	60	NE	NE	NE	100	600
T2 SP2@ 5'	5'	3/25/08	In-Situ	--	--	--	--	--	--	--	--	--	< 16.0
T2 SP2@ 10'	10'	3/25/08	In-Situ	--	--	--	--	--	--	--	--	--	32
T2 SP2@ 15'	15'	3/25/08	In-Situ	--	--	--	--	--	--	--	--	--	272
T2 SP2@ 20'	20'	3/25/08	In-Situ	--	--	--	--	--	--	--	--	--	144
T12 SP2@ 5'	5'	3/25/08	In-Situ	--	--	--	--	--	--	--	--	--	48
T12 SP2@ 10'	10'	3/25/08	In-Situ	--	--	--	--	--	--	--	--	--	208
T12 SP2@ 15'	15'	3/25/08	In-Situ	--	--	--	--	--	--	--	--	--	304
T12 SP2@ 20'	20'	3/25/08	In-Situ	--	--	--	--	--	--	--	--	--	224

NE = Not Established

-- = Not Analyzed

Concentrations in **BOLD** exceed the NMOCD Closure Limit

**TABLE 2**  
**APACHE NEDU 807**  
 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	EPA SW-846 Method 8021B					EPA SW-846 Method 8015M				4600-C1 B
				BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYLBENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	TOTAL BTEX (mg/kg)	GRO C6-C10 (mg/kg)	DRO C10-C28 (mg/kg)	EXT DRO C28-C36 (mg/kg)	TPH C6-C35 (mg/kg)	CHLORIDE (mg/kg)
NMOCD Closure Limits (mg/kg)				10	NE	NE	NE	50	NE	NE	NE	100	600
SP-1 @ Surface	Surface	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	< 16.0
SP-1 @ 1'	1'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	< 16.0
SP-1 @ 2'	2'	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	< 16.0
SP-1 @ 3'	3'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
SP-1 @ 4'	4'	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	< 16.0
SP-1 @ 5'	5'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP-2 @ Surface	Surface	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	<16.0
SP-2 @ 1'	1'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP-2 @ 2'	2'	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	16
SP-2 @ 3'	3'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32
SP-2 @ 4'	4'	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	48

SP-2 @ 5'	5'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48
SP-3 @ Surface	Surface	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	<16.0
SP-3 @ 1'	1'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP-3 @ 2'	2'	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	<16.0
SP-3 @ 3'	3'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP-3 @ 4'	4'	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	16
SP-3 @ 5'	5'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16
SP-4 @ Surface	Surface	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	<16.0
SP-4 @ 1'	1'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP-4 @ 2'	2'	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	16
SP-4 @ 3'	3'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16
SP-4 @ 4'	4'	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	16
SP-4 @ 5'	5'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16
SP-5 @ Surface	Surface	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	<16.0
SP-5 @ 1'	1'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP-5 @ 2'	2'	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	<16.0
SP-5 @ 3'	3'	8/22/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16
SP-5 @ 4'	4'	8/22/19	In-Situ	--	--	--	--	--	--	--	--	--	16
SP-5 @ 5'	5'	8/23/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16
SP-6 @ Surface	Surface	8/23/19	In-Situ	--	--	--	--	--	--	--	--	--	<16.0
SP-6 @ 1'	1'	8/23/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP-6 @ 2'	2'	8/23/19	In-Situ	--	--	--	--	--	--	--	--	--	<16.0



SP-6 @ 3'	3'	8/23/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP-6 @ 4'	4'	8/23/19	In-Situ	--	--	--	--	--	--	--	--	--	<16.0
SP-6 @ 5'	5'	8/23/19	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0

NE = Not Established

-- = Not Analyzed

Concentrations in **BOLD** exceed the NMOCB Closure Limit

**TABLE 3  
CLOSURE CRITERIA JUSTIFICATION**

**APACHE CORPORATION  
NORTHEAST DRINKARD UNIT 807  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1RP1644**

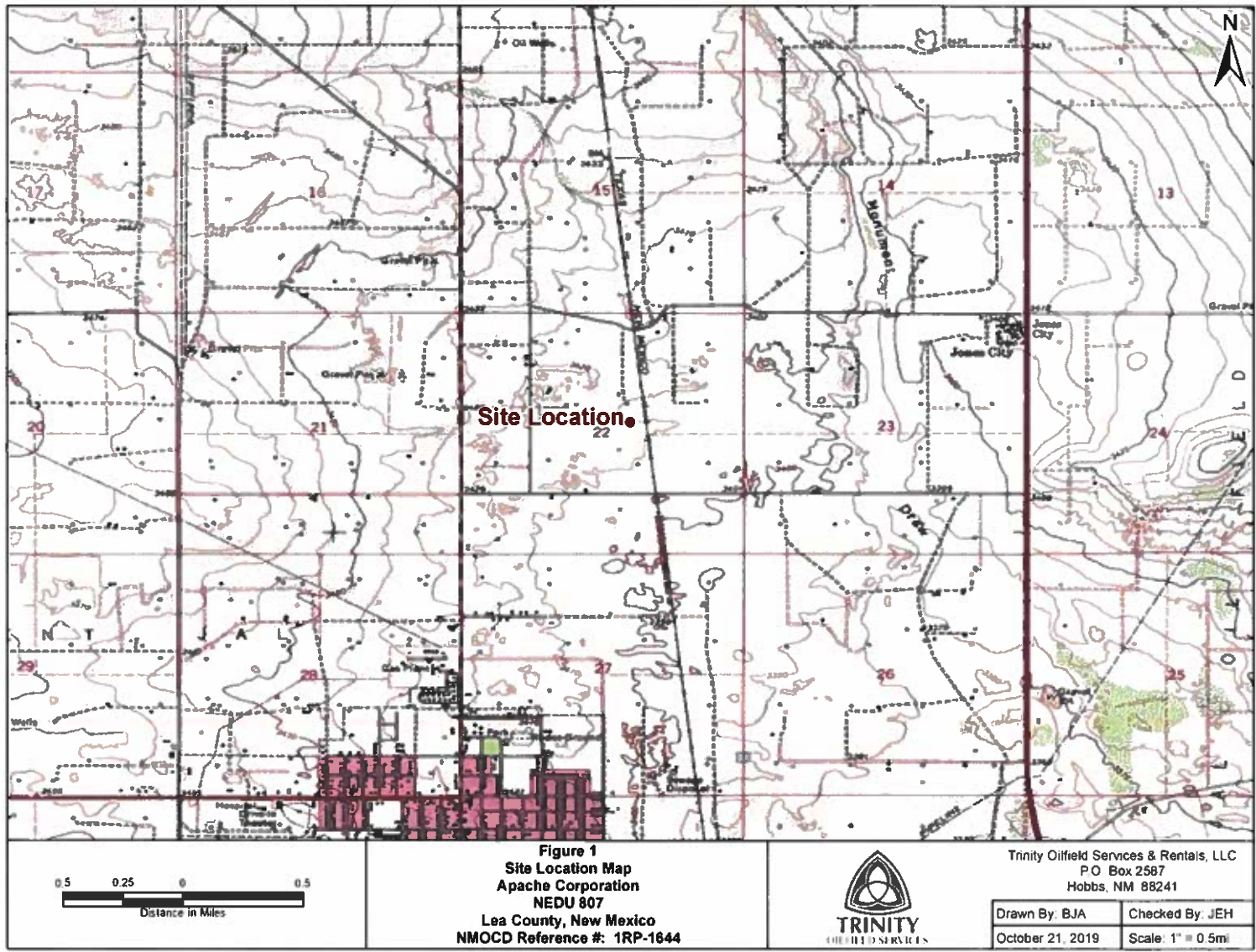


<b>Groundwater, Water Wells &amp; Other Water Sources</b>	
Depth to groundwater (ft)?	Avg 58.1 ft.
Horizontal distance (ft) from all water sources within 0.5 miles?	0.25 to 0.49 miles
Within 500' of a spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	No
Within 1000' of any fresh water well or spring?	No
<b>Surface Water</b>	
Horizontal distance (ft) to nearest significant watercourse?	>1,000
Within 300' of any continuously flowing watercourse or any other significant watercourse?	No
Within 200' of any lakebed, sinkhole or playa lake?	No
<b>Human-Occupied, Environmental &amp; Other Areas</b>	
Within incorporated municipal boundaries or within a defined municipal fresh water well field?	No
Within 300' of an occupied permanent residence, school, hospital, institution or church?	No
Within 300' of a wetland?	No
Within the area overlying a subsurface mine?	No
Within an unstable area?	No
Within a 100-year floodplain?	No

<b>Closure Criteria (mg/kg)*</b>				
<b>Benzene</b>	<b>BTEX</b>	<b>GRO + DRO</b>	<b>TPH</b>	<b>Chloride</b>
10	50	1,000	2,500	10,000

\*Numerical limits or natural background level, whichever is greater

## FIGURES

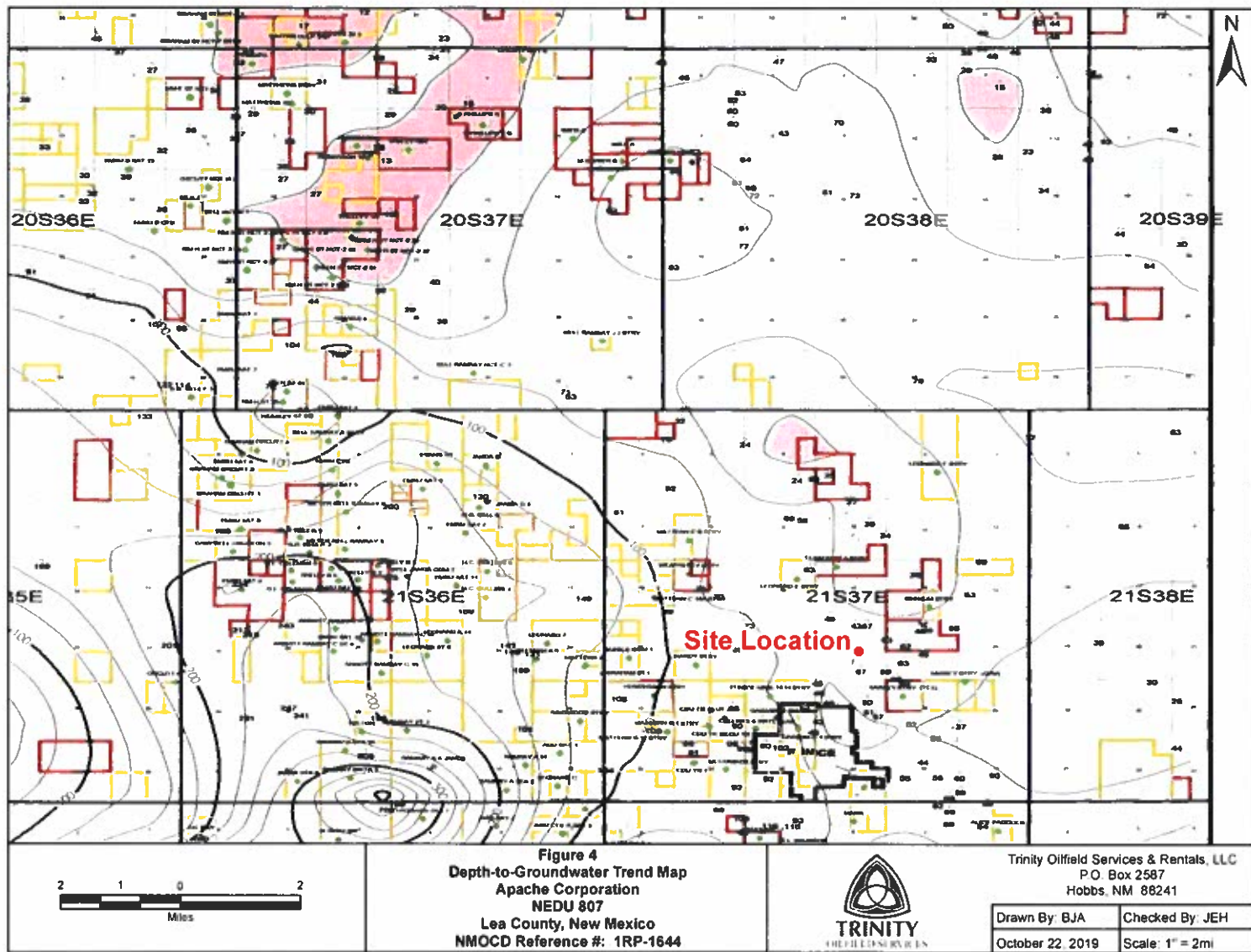


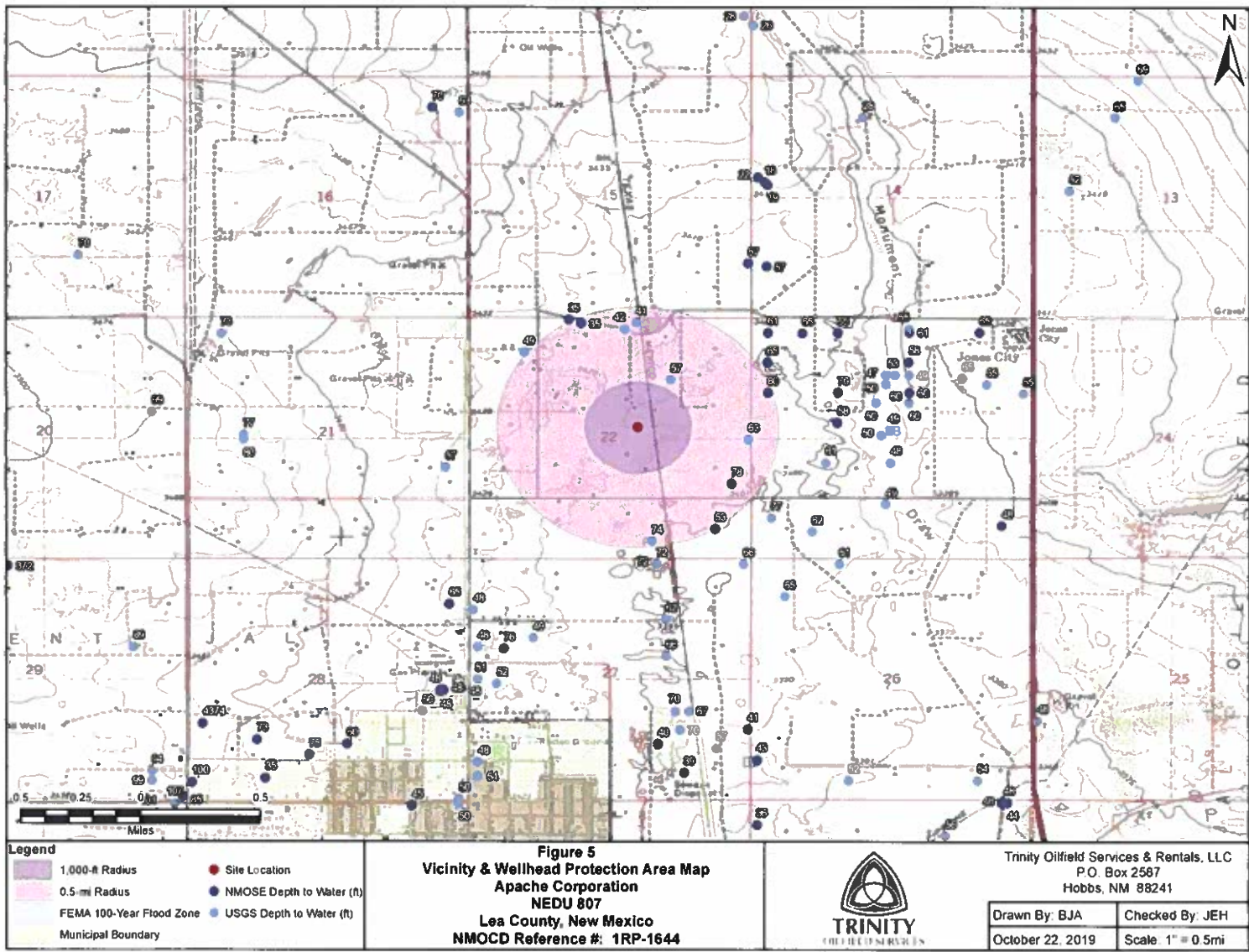














## APPENDICES

**APPENDIX A**  
**RELEASE NOTIFICATION AND**  
**CORRECTIVE ACTION**  
**FORM (C-141)**  
**Initial Notification**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1101 W. Grand Avenue, Artesia, NM 88210  
District III  
1600 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

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

Form C-141  
Revised October 10, 2000

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

Release Notification and Corrective Action

OPERATOR		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company: Apache Corporation		Contact: Mike Warren	
Address: 17 Hess Lane Mammoth, New Mexico 88262		Telephone No. 505-393-2144	
Facility Name: Northeast Drinkard Unit 807 (NEDU 807)		Facility Type: Water injection system line	
Surface Owner: Charlie Reitis		Mineral Owner:	API No. 3002506729

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	22	T21S	R37E					Lea
Latitude:		32° 27' 53.26" N		Longitude:		103° 08' 56.47" W		

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 1,200 bbls	Volume Recovered: 0 bbls
Source of Release: Water injection system line	Date and Hour of Occurrence: 9/8/2003	Date and Hour of Discovery: 9/18/2003
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Mike Warren, Apache	Date and Hour: 9/18/2003	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse: NA	
If a Watercourse was Impacted, Describe Fully: NA		
Describe Cause of Problem and Remedial Action Taken: Internal/external corrosion of an 8-inch diameter steel produced water gathering line.		
Describe Area Affected and Cleanup Action Taken: 98,826 sqft 460FEW x 500' NS. The site will be delineated and remediated in accordance with the NMOCD guidelines. Remedial Goals: TPH 8015m - 100 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.		
Signature: <i>Guinn Burks</i>	OIL CONSERVATION DIVISION <i>J. Johnson</i>	
Printed Name: Guinn Burks	Approved by District Supervisor ENVIRONMENTAL ENGINEER	
E-mail Address: Guinn.Burks@ApacheCorp.com	Approval Date: 10-1-03	Expiration Date: 12-9-07
Title: EHS Technician - South Central Permian	Conditions of Approval:	Attached <input type="checkbox"/>
Date: September 20, 2003	Phone: 432-558-3515	

\* Attach Additional Sheets If Necessary

RP# 1644

**APPENDIX B**  
**RELEASE NOTIFICATION AND**  
**CORRECTIVE ACTION**  
**FORM (C-141)**  
**Final Notification Placeholder**

State of New Mexico  
Oil Conservation Division

Incident ID	
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?

58.1 (avg. 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 points and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 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

Incident ID	
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: Bruce Baker Title: Environmental Tech SR.  
Signature: Bruce Baker Date: 10-30-19  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

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

State of New Mexico  
Oil Conservation Division

Incident ID	
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: Bruce Baker Title: Environmental Tech. SR.  
 Signature: Bruce Baker Date: 10-30-19  
 email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

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

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: Bradford Billings Date: 06/22/2022  
 Printed Name: Bradford Billings Title: Envi.Spec.A

**APPENDIX C  
AVAILABLE  
HISTORIC  
INFORMATION**



NEOL 807

District  
1625 N French Dr Hobbs, NM 88240  
District II  
1401 W Grand Avenue, Artesia, NM 88210  
District III  
1600 Rio Hondo Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

Submit 2 copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

Release Notification and Corrective Action

<b>OPERATOR</b>		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company: Apache Corporation		Contact: Mike Warren	
Address: 17 Hessa Lane Muirwings, New Mexico 88262		Telephone No. 505-393-2141	
Facility Name: Northeast Drunkland Unit 807 (NE-DU 807)		Facility Type: Water injection system line	
Surface Owner: Charlie Denis		Mineral Owner:	API No. 3042504729

LOCATION OF RELEASE

Unit Letter C	Section 22	Township T21N	Range R17E	Feet from the North/South Line	Feet from the East/West Line	County Lea
Latitude: 32° 27' 53.26"N		Longitude: 104° 08' 46.17"W				

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 1,200 bbls	Volume Recovered: 0 bbls
Source of Release: Water injection system line	Date and Hour of Occurrence 9/8/2003	Date and Hour of Discovery 9/18/2003
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Mike Warren, Apache	Date and Hour 9/18/2003	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse: NA	
If a Watercourse was Impacted, Describe Fully: NA		
Describe Cause of Problem and Remedial Action Taken: Internal/external corrosion of an 8-inch diameter steel produced water gathering line		
Describe Area Affected and Cleanup Action Taken: 9A, J26 well 460EW's MOPS. The site will be delineated and remediated in accordance with the NMNCD guidelines. Remedial Goals: TPH R015m = 100 mg/kg, Benzene = 10 mg/kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/kg.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMNCD 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 NMNCD marked as "Final Report" does not relieve the operator of liability should the operations have failed to adequately investigate and remediate contamination that poses a threat to ground water, surface water, human health or the environment. In addition, NMNCD 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.		
Signature <i>Guinn Burke</i>	Approved by District Supervisor <i>[Signature]</i> <b>ENVIRONMENTAL ENGINEER</b>	
Printed Name: Guinn Burke	Approval Date: 10-1-07	Expiration Date: 12-31-07
E-mail Address: <a href="mailto:Guinn.Burke@ApacheCorp.com">Guinn.Burke@ApacheCorp.com</a>	Conditions of Approval	Attached <input type="checkbox"/>
Title: FERS Technician, South Central Permian		
Date: September 30, 2003	Phone: 412-558-3515	

\* Attach Additional Sheets If Necessary

RD# 1644

## Environmental Mus, Inc.

## Project Summary

Company: Apache

Project: NEDU #807 (Ref. # 240005)

Date	Activity	Type of Soil			Samples						Comments
		Excavation	Caliche	Top Soil	Field Analyses		Laboratory Analytical				
					PID	Chloride	BTEX	TPH	Chloride	Sulfate	
8-Sep-03	initial site assessment, gps and photograph										
26-Sep-03	Soil Boring BH-1							2	2		
29-Sep-03	Soil Boring BH-2, BH-3							4	4		
12-Apr-05	grid over release area 40 samples total								40		grid laid out over release area. Sample taken at three depths at each grid line intersection
14-Apr-05	samples								4		
3-Feb-06	drilled soil borings w/surab. Collected samples and tested. gps and photograph					16	5	4	16		
27-Oct-06	excavate and haul contaminated soil	120									start on the neck 807, start digging down about 3 feet. Then test soil. Haul to sundance.
30-Oct-06	excavate and haul contaminated soil	252									
31-Oct-06	gps and flag site for blending of soil. Finish hauling contaminated soil Haul backfill.	168		48	13	13	4	4	14		haul in backfill for blending. C & V properties
1-Nov-06	haul in backfill			216							C & V properties
2-Nov-06	haul in backfill			216							C & V properties
3-Nov-06	haul in backfill			216							C & V properties
6-Nov-06	haul in backfill			216							C & V properties
7-Nov-06	haul in backfill			216							C & V properties
8-Nov-06	haul in backfill			216							C & V properties
9-Nov-06	haul in backfill			376							C & V properties
10-Nov-06	haul in backfill			344							C & V properties

## Environmental Pwr, Inc.

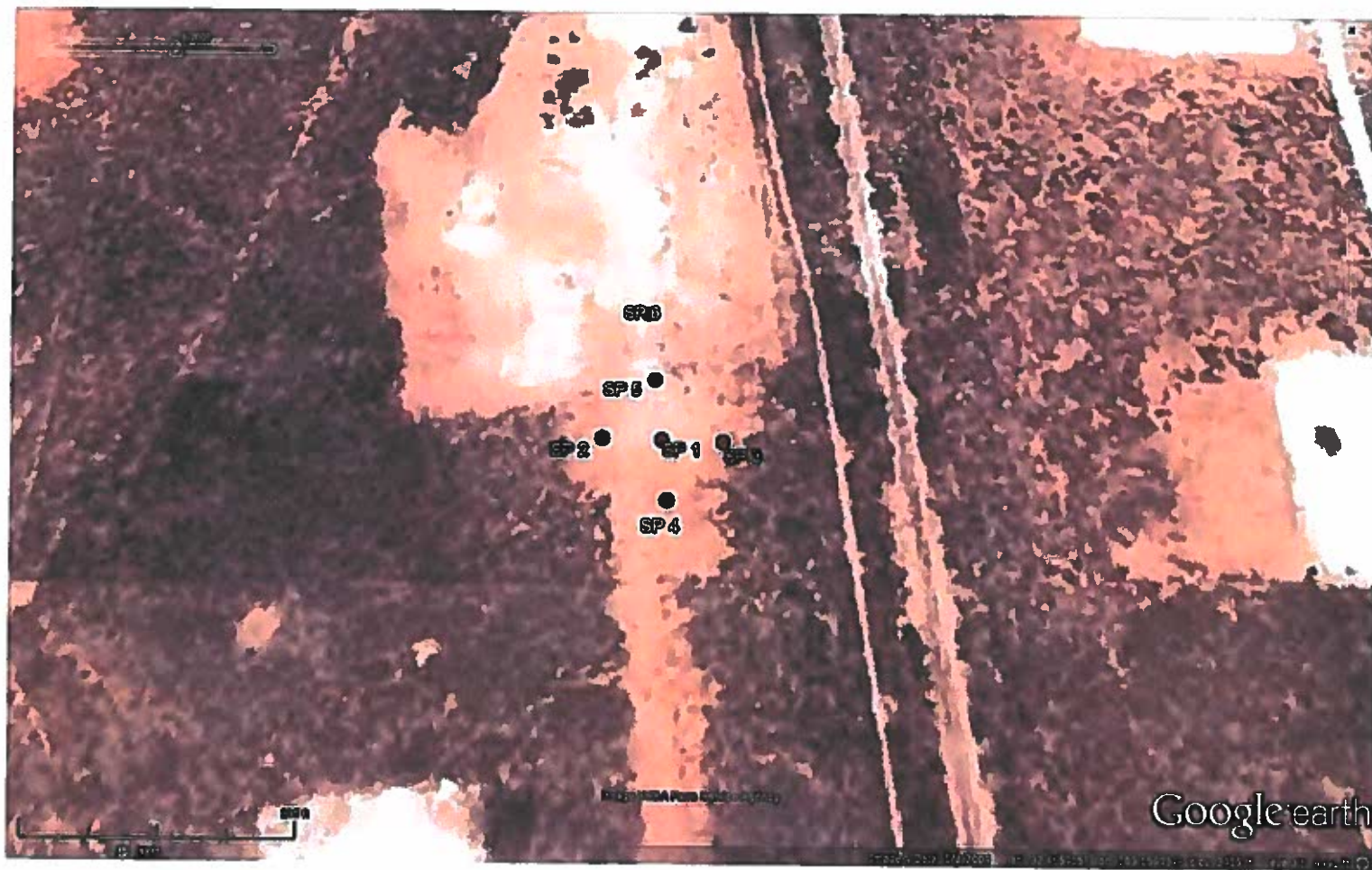
## Project Summary

Company: Apache

Project: NEDU #007 (Ref. # 240005)

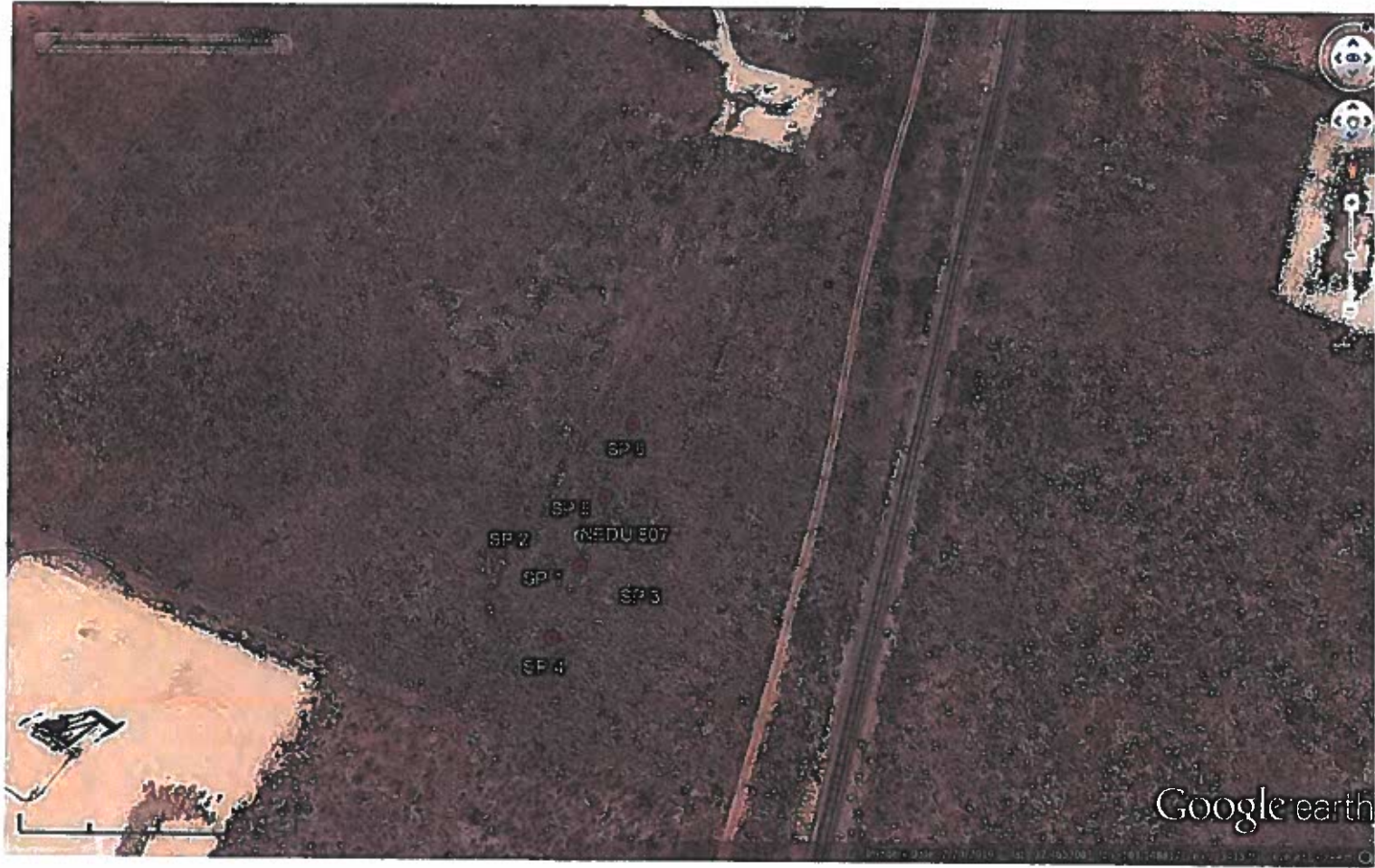
Date	Activity	Type of Soil			Samples						Comments
					Field Analyses		Laboratory Analytical				
		Excavation	Caliche	Top Soil	PID	Chloride	BTEX	TPH	Chloride	Sulfate	
13-Nov-06	haul in backfill			360							C & V properties
14-Nov-06	haul in backfill			320							C & V properties
15-Nov-06	haul in backfill			360							C & V properties
16-Nov-06	haul in backfill			360							C & V properties
17-Nov-06	haul in backfill			344							C & V properties
20-Nov-06	haul in backfill			312							C & V properties
21-Nov-06	haul in backfill			40							C & V properties
	Summation	540	0	4,160	13	29	9	14	80	0	

VEDU 807 2009





2019





# ARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR  
APACHE OIL  
ATTN: JERRY BRIAN  
P.O. BOX 1849  
EUNICE, NM 88231  
FAX TO: (575) 394-2425

Receiving Date: 03/25/08  
Reporting Date: 03/26/08  
Project Number: NOT GIVEN  
Project Name: NOT GIVEN  
Project Location: NEDU 807

Analysis Date: 03/26/08  
Sampling Date: 03/25/08  
Sample Type: SOIL  
Sample Condition: INTACT  
Sample Received By: CK  
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/kg)
H14505-1	T2 SP2 5'	< 16
H14505-2	T2 SP2 10'	32
H14505-3	T2 SP2 15'	272
H14505-4	T2 SP2 20'	144
H14505-5	T12 SP2 5'	48
H14505-6	T12 SP2 10'	208
H14505-7	T12 SP2 15'	304
H14505-8	T12 SP2 20'	224
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods

4500-ClB

Note: Analyses performed on 1:4 w:v aqueous extracts.

*Step S. Muth*  
Chemist

03-26-08  
Date

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**CARDINAL LABORATORIES**

 101 East Merland, Hobbs, NM 88240  
 (505) 393-2328 Fax (505) 393-2478

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Page \_\_\_\_ of \_\_\_\_

Company Name: <u>Apache Oil</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>											
Project Manager: <u>Terry Brown</u>				P.O. #:															
Address: <u>P.O. Box 1849</u>				Company: <u>Apache</u>															
City: <u>San Jose</u> State: <u>NM</u> Zip: <u>88231</u>				ASN:															
Phone #: <u>390-4480</u> Fax #: <u>390-2425</u>				Address:															
Project #:				City:															
Project Name:				State:				Zip:											
Project Location: <u>Lot 1, 807</u>				Phone #:															
Sampler Name: <u>Labile Gladstone / Terry Brown</u>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	KORAL OR EQUIP IN CONTAINERS	MATRIX								PRESERV.	SAMPLING	DATE	TIME					
			GROUNDWATER	WASTEWATER	SOIL	OIL	SILICE	OTHER	ACIDBASE	ICE / COOL						OTHER			
H14505-1	T2 SP2 5'																		
-2	{ 10'																		
-3	{ 15'																		
-4	{ 20'																		
-5	T2 SP2 5'																		
-6	{ 10'																		
-7	{ 15'																		
-8	{ 20'																		
<small>PLEASE NOTE: Liability and Damages. Cardinal's liability and maximum recovery for any claim arising whether caused in whole or in part, shall be limited to the amount paid by the client for the services. No claims arising under this agreement and any other shall whatsoever shall be covered without written consent in writing and received by Cardinal within 30 days after completion of the analysis. Services are provided as a service to the client and are not intended to constitute an offer of insurance or any other financial product. Cardinal is not a financial institution and does not provide financial services. Cardinal is not a financial institution and does not provide financial services. Cardinal is not a financial institution and does not provide financial services.</small>																			
Sampler Relinquished:		Date:		Received By:		Phone Result:		Fax Result:		Add'l Phone #:		Add'l Fax #:							
<u>Labile Gladstone</u>		<u>5/25/08</u>		<u>Ch. Kume</u>		<u>Yes</u>		<u>Yes</u>		<u>390-4480</u>		<u>390-2425</u>							
Relinquished By:		Date:		Received By:		REMARKS:													
<u>Labile Gladstone</u>		<u>5/25/08</u>		<u>Ch. Kume</u>		<u>CI soil x8 = \$200<sup>00</sup></u>													
Delivered By: (Circle One)		Temp.		Sample Condition		CHECKED BY:													
Sampler - UPS - Bus - Other:				Cool Intact		(Initials)													
				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		<u>Ch</u>													

† Cardinal cannot accept verbal changes. Please fax written changes to 676-393-2478.

**APPENDIX D**  
**SITE PHOTOGRAPHS**  
**OF CURRENT**  
**CONDITIONS**





☼ 337°NW (T) ● 32.464915°, -103.148892° ±19ft ▲ 3419ft



21 Oct 2019, 10:31





☉ 36°NE (T) ☉ 32.465612°, -103.149143° ±19ft ▲ 3419ft



21 Oct 2019, 10:29 AM



☉ 91°E (T) ● 32.465612°, -103.149145° ±19ft ▲ 3419ft



21 Oct 2019, 10:29:01





21 Oct 2019, 10:29:39 AM



☉ 154°SE (T) ☉ 32.464946°, -103.148813° ±19ft ▲ 3419ft



21 Oct 2019, 10:31:39 AM





☉ 184°S (T) ☉ 32.465610°, -103.149144° ±19ft ▲ 3419ft



21 Oct 2019, 10:29



☼ 288°W (T) ● 32.464946°, -103.148814° ±19ft ▲ 3419ft



21 Oct 2019, 10:31:

# **APPENDIX E LABORATORY REPORT SUMMARY**





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

August 27, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU #807

Enclosed are the results of analyses for samples received by the laboratory on 08/22/19 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	08/22/2019	Sampling Date:	08/22/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	NEDU #807	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP - 1 @ SURFACE 32.46479 (H902895-01)**

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	08/26/2019	ND	416	104	400	0.00		

**Sample ID: SP - 1 @ 1 -103.14889 (H902895-02)**

BTX 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	08/24/2019	ND	1.68	83.8	2.00	3.40		
Toluene*	<0.050	0.050	08/24/2019	ND	1.84	92.2	2.00	1.47		
Ethylbenzene*	<0.050	0.050	08/24/2019	ND	1.98	98.8	2.00	1.53		
Total Xylenes*	<0.150	0.150	08/24/2019	ND	5.90	98.3	6.00	1.11		
Total BTX	<0.300	0.300	08/24/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 93.6 % 73.3-129

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	08/26/2019	ND	416	104	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	08/26/2019	ND	192	95.8	200	0.189		
DRO >C10-C28*	<10.0	10.0	08/26/2019	ND	190	95.0	200	4.12		
EXT DRO >C28-C36	<10.0	10.0	08/26/2019	ND						

Surrogate: 1-Chlorooctane 96.7 % 41-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 1 @ 1 -103.14889 (H902895-02)**

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Surrogate: 1-Chlorooctadecane	107 %	37.6-147							

**Sample ID: SP - 1 @ 2 (H902895-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/26/2019	ND	416	104	400	0.00	

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 1 @ 3 (H902895-04)**

BTX 80218		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/24/2019	ND	1.68	83.8	2.00	3.40	
Toluene*	<0.050	0.050	08/24/2019	ND	1.84	92.2	2.00	1.47	
Ethylbenzene*	<0.050	0.050	08/24/2019	ND	1.98	98.8	2.00	1.53	
Total Xylenes*	<0.150	0.150	08/24/2019	ND	5.90	98.3	6.00	1.11	
Total BTX	<0.300	0.300	08/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 92.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/26/2019	ND	416	104	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	08/26/2019	ND	192	95.8	200	0.189	
DRO >C10-C28*	<10.0	10.0	08/26/2019	ND	190	95.0	200	4.12	
EXT DRO >C28-C36	<10.0	10.0	08/26/2019	ND					

Surrogate: 1-Chlorooctane 98.2 % 41-142

Surrogate: 1-Chlorooctadecane 109 % 37.6-147

**Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 1 @ 4 (H902895-05)**

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	08/26/2019	ND	416	104	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 1 @ 5 (H902895-06)**

BTEX 80218			mg/kg		Analyzed By: ms				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/24/2019	ND	1.68	83.8	2.00	3.40	
Toluene*	<0.050	0.050	08/24/2019	ND	1.84	92.2	2.00	1.47	
Ethylbenzene*	<0.050	0.050	08/24/2019	ND	1.98	98.8	2.00	1.53	
Total Xylenes*	<0.150	0.150	08/24/2019	ND	5.90	98.3	6.00	1.11	
Total BTEX	<0.300	0.300	08/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 91.3 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/26/2019	ND	416	104	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	08/26/2019	ND	192	95.8	200	0.189	
DRO >C10-C28*	<10.0	10.0	08/26/2019	ND	190	95.0	200	4.12	
EXT DRO >C28-C36	<10.0	10.0	08/26/2019	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 111 % 37.6-147

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 2 @ SURFACE 32.464783 (H902895-07)**

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/26/2019	ND	416	104	400	0.00	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 2 @ 1 -103.149106 (H902895-08)**

BTX 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	08/24/2019	ND	1.68	83.8	2.00	3.40	
Toluene*	<0.050	0.050	08/24/2019	ND	1.84	92.2	2.00	1.47	
Ethylbenzene*	<0.050	0.050	08/24/2019	ND	1.98	98.8	2.00	1.53	
Total Xylenes*	<0.150	0.150	08/24/2019	ND	5.90	98.3	6.00	1.11	
Total BTX	<0.300	0.300	08/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 93.8 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/26/2019	ND	416	104	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	08/26/2019	ND	192	95.8	200	0.189	
DRO >C10-C28*	<10.0	10.0	08/26/2019	ND	190	95.0	200	4.12	
EXT DRO >C28-C36	<10.0	10.0	08/26/2019	ND					

Surrogate: 1-Chlorooctane 90.6 % 41-142

Surrogate: 1-Chlorooctadecane 99.5 % 37.6-147

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 2 @ 2 (H902895-09)**

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/26/2019	ND	416	104	400	0.00	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 2 @ 3 (H902895-10)**

BTEX 80218		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/24/2019	ND	1.68	83.8	2.00	3.40	
Toluene*	<0.050	0.050	08/24/2019	ND	1.84	92.2	2.00	1.47	
Ethylbenzene*	<0.050	0.050	08/24/2019	ND	1.98	98.8	2.00	1.53	
Total Xylenes*	<0.150	0.150	08/24/2019	ND	5.90	98.3	6.00	1.11	
Total BTEX	<0.300	0.300	08/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 92.8 % 73.3-129

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	08/26/2019	ND	416	104	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	08/26/2019	ND	192	95.8	200	0.189	
DRO >C10-C28*	<10.0	10.0	08/26/2019	ND	190	95.0	200	4.12	
EXT DRO >C28-C36	<10.0	10.0	08/26/2019	ND					

Surrogate: 1-Chlorooctane 96.9 % 41-142

Surrogate: 1-Chlorooctadecane 105 % 37.6-147

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 2 @ 4 (H902895-11)**

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/26/2019	ND	432	108	400	3.77	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 2 @ 5 (H902895-12)**

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	08/24/2019	ND	1.68	83.8	2.00	3.40	
Toluene*	<0.050	0.050	08/24/2019	ND	1.84	92.2	2.00	1.47	
Ethylbenzene*	<0.050	0.050	08/24/2019	ND	1.98	98.8	2.00	1.53	
Total Xylenes*	<0.150	0.150	08/24/2019	ND	5.90	98.3	6.00	1.11	
Total BTEX	<0.300	0.300	08/24/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 94.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/26/2019	ND	432	108	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	08/26/2019	ND	192	95.8	200	0.189	
DRO >C10-C28*	<10.0	10.0	08/26/2019	ND	190	95.0	200	4.12	
EXT DRO >C28-C36	<10.0	10.0	08/26/2019	ND					

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 111 % 37.6-147

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 3 @ SURFACE 32.464792 (H902895-13)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/26/2019	ND	432	108	400	3.77	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 3 @ 1 -103.148714 (H902895-14)**

BTX 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	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 93.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/26/2019	ND	432	108	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	08/26/2019	ND	192	95.8	200	0.189	
DRO >C10-C28*	<10.0	10.0	08/26/2019	ND	190	95.0	200	4.12	
EXT DRO >C28-C36	<10.0	10.0	08/26/2019	ND					

Surrogate: 1-Chlorooctane 95.2 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 3 @ 2 (H902895-15)**

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/26/2019	ND	432	108	400	3.77	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 3 @ 3 (H902895-16)**

BTEX 80218		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 94.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/26/2019	ND	432	108	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	08/26/2019	ND	192	95.8	200	0.189	
DRO >C10-C28*	<10.0	10.0	08/26/2019	ND	190	95.0	200	4.12	
EXT DRO >C28-C36	<10.0	10.0	08/26/2019	ND					

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 111 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 3 @ 4 (H902895-17)**

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	08/26/2019	ND	432	108	400	3.77	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 3 @ 5 (H902895-18)**

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	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 94.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/26/2019	ND	432	108	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	08/27/2019	ND	205	102	200	0.789	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	215	107	200	5.05	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 94.9 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 4 @ SURFACE 32.464619 (H902895-19)****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	08/26/2019	ND	432	108	400	3.77	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 4 @ 1 -103.148797 (H902895-20)**

BTX 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	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 94.5 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/26/2019	ND	432	108	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	08/27/2019	ND	205	102	200	0.789	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	215	107	200	5.05	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 99.1 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 4 @ 2 (H902895-21)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/26/2019	ND	432	108	400	3.77	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 4 @ 3 (H902895-22)**

BTX 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	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 94.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/26/2019	ND	432	108	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	08/27/2019	ND	205	102	200	0.789	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	215	107	200	5.05	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 112 % 37.6-147

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 4 @ 4 (H902895-23)**

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/26/2019	ND	432	108	400	3.77	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 4 @ 5 (H902895-24)**

BTEX 80218		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 95.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/26/2019	ND	432	108	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	08/27/2019	ND	205	102	200	0.789	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	215	107	200	5.05	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 112 % 37.6-147

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 5 @ SURFACE 32.464979 (H902895-25)**

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/26/2019	ND	432	108	400	3.77	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 5 @ 1 -103.148935 (H902895-26)**

BTX 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	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 95.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/26/2019	ND	432	108	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	08/27/2019	ND	205	102	200	0.789	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	215	107	200	5.05	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 100 % 41-142

Surrogate: 1-Chlorooctadecane 109 % 37.6-147

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 5 @ 2 (H902895-27)**

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	08/26/2019	ND	432	108	400	3.77	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 5 @ 3 (H902895-28)**

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	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.6 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/26/2019	ND	432	108	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	08/27/2019	ND	205	102	200	0.789	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	215	107	200	5.05	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 99.2 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/22/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 5 @ 4 (H902895-29)**

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/26/2019	ND	432	108	400	3.77	

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### Notes and Definitions

- 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.
- 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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Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <b>Procter &amp; Gamble Corporation</b>		P.O. #:		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>	
Project Manager: <b>Bruce Baker</b>		Company:					
Address:		City:		State:		Zip:	
City:		Attn:		Address:			
Phone #:		Fax #:		City:		State:	
Project #:		Project Owner:		City:		State:	
Project Name: <b>NEDU 907</b>		State:		City:		Zip:	
Project Location: <b>NEDU 907</b>		Phone #:		City:		State:	
Sampler Name: <b>David Baker</b>		Fax #:		City:		State:	
FOR USE ONLY							
Lab I.D. <b>Sample I.D.</b>		(G)RAB OR (C)OMP.		DATE		TIME	
		# CONTAINERS					
<b>HA02895</b> 1 SP-1 surface 32.46479 2 SP-101-103.1484 3 SP-102 4 SP-103 5 SP-104 6 SP-105 7 SP-2 surface 32.464783 8 SP-201-103.14916 9 SP-202 10 SP-203		GROUNDWATER		6/28/14 CL EXT. TPH BTEX			
		WASTEWATER					
		SOIL					
		OIL					
		SLUDGE					
		OTHER:					
		ACID/BASE:					
		ICE / COOL					
		OTHER:					
		MATRIX					
Relinquished By: <b>[Signature]</b>		Date: <b>8-22-14</b>		Received By: <b>[Signature]</b>		Date: <b>8-22-14</b>	
Relinquished By: <b>[Signature]</b>		Date: <b>10-15-10</b>		Received By: <b>[Signature]</b>		Date: <b>10-15-10</b>	
Delivered By: (Circle One) <b>1.92</b>		Sample Condition		CHECKED BY: <b>[Signature]</b>			
Sampler - UPS - Bus - Other: <b>Constructive 2.32</b>		Cool Intact		Cool Intact			
		Pres Pres		Pres Pres			
		No No		No No			
				50			
REMARKS:		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:			
		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:			
Email to Bruce and Jeff							





2: Apple Corporation

Email to Bruce and Jeff



ANALYSIS REQUEST

Phone Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Phone #:
Fax Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Fax #:
REMARKS:			
Email to Bruce and Self			



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

August 27, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU #807

Enclosed are the results of analyses for samples received by the laboratory on 08/23/19 10:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/23/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/23/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 5 @ 5 (H902902-01)**

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	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 97.8 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/27/2019	ND	432	108	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	08/27/2019	ND	205	102	200	0.789	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	215	107	200	5.05	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 93.9 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/23/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/23/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 6 @ SURFACE (H902902-02)**

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/27/2019	ND	416	104	400	0.00	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/23/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/23/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 6 @ 1 (H902902-03)**

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	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.7 % 73.3-129

Chloride, SM4500Cl-B			mg/kg						
			Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/27/2019	ND	416	104	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	08/27/2019	ND	205	102	200	0.789	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	215	107	200	5.05	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 109 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/23/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/23/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 6 @ 2 (H902902-04)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/27/2019	ND	416	104	400	0.00	

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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/23/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/23/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 6 @ 3 (H902902-05)**

BTEX 80218		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIB) 98.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/27/2019	ND	416	104	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	08/27/2019	ND	205	102	200	0.789	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	215	107	200	5.05	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 95.1 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/23/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/23/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 6 @ 4 (H902902-06)**

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/27/2019	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 08/23/2019  
 Reported: 08/27/2019  
 Project Name: NEDU #807  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/23/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP - 6 @ 5 (H902902-07)**

BTX 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	08/26/2019	ND	1.67	83.6	2.00	1.03	
Toluene*	<0.050	0.050	08/26/2019	ND	1.87	93.4	2.00	0.837	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.97	98.5	2.00	3.20	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.13	102	6.00	2.59	
Total BTX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 99.3 % 73.3-129

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	08/27/2019	ND	416	104	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	08/27/2019	ND	205	102	200	0.789	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	215	107	200	5.05	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 99.6 % 41-142

Surrogate: 1-Chlorooctadecane 109 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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### Notes and Definitions

- 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.
- 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 SM4500C1-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

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Celey D. Keene, Lab Director/Quality Manager



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

Phone Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Phone #
Fax Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Fax #
REMARKS:			
Email to Bruce and Jeff			

**APPENDIX F**  
**CLOSURE CRITERIA**  
**JUSTIFICATION**

### Site Closure Request

Much of the historical information for the site work performed by Environmental Plus, Inc. (EPI) including field data, documentation of field activities, laboratory analysis of samples, sample location documentation and photography is unavailable for this report. A historical summary of actions taken by EPI is provided and is a forensic representation of events which can be inferred from the existing documentation. Trinity is not responsible for any gaps in the data related to the missing information.

Apache enlisted the services of Trinity to close NMOCD Region I File 1RP1644 on July 25, 2019. Trinity performed a reconnaissance of the NEDU 807 site and collected samples from the ground surface and from one-foot intervals to a depth of five feet at six sample locations using stainless-steel spatula and a soil auger.

Depth to groundwater was determined utilizing data from a regional groundwater trend map, data from the New Mexico Office of State Engineer database and the USGS water well database. A total of 9 water wells occur within one-half mile of the site with depths to groundwater ranging between 35 feet and 80 feet bgs, with average depth to groundwater being 58.1 feet bgs. A well 0.25 miles to the east-northeast of the release location shows a groundwater elevation of 57 feet bgs which is in close agreement to the average groundwater depth of 58.1 feet bgs.

Soil Samples collected from the inferred impacted area were analyzed by a NMOCD approved laboratory (Cardinal Laboratories) in Hobbs, NM. Laboratory results indicate concentrations of chloride, TPH, and BTEX are well below the closure criteria listed in Table 1 of Section 19.15.29.12 of the New Mexico Administrative Code for a site where the depth to groundwater is between 50 and 100 feet bgs. BTEX and TPH results were all below the analytical method detection limits. Chloride results ranged between non-detect (<16.0 mg/kg) and 48 mg/kg which were well below the NMOCD criteria for chloride in soil (10,000 mg/kg). Based on these laboratory analytical results, the initial response and subsequent actions conducted at the site during the period between 2008 and 2019 were effective in remediating the release. Trinity on behalf of Apache hereby requests that the NMOCD grant closure to the NEDU 807 release site as represented by case number 1RP-1644. Closure Criteria is provided on the Final C-141 form (Appendix B) and in Table 3.

**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 2167

**CONDITIONS**

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 2167
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
bbillings	None	6/22/2022