303 Veterans Airpark Lane Midland, TX 79705

Remediation Plan

October 28, 2021

Re: EAU M-9 Emulsion Trunk Line
Case #: nAPP2121456443

Background:

On 8/1/2021 a release occurred due to a buried fiberglass line failed. The release (GPS: 32.767600, -104.256500) is located east of Artesia, New Mexico in unit letter D section 11 township 18S range 27E. A groundwater survey was conducted utilizing NMOSE wells of record. The nearest well of record suggest the groundwater depth below the release to be 50 feet below ground surface. The release is in a high karst area.

On 3/9/2021 vertical delineation was conducted in regular intervals utilizing a backhoe to depths of 2,3 and 5 feet. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. 5 point surface horizontal samples were collected not to exceed 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX.

Remediation Plan:

Apache Corporation proposes that the release area around SP 1 and SP 4 be excavated to a depth of 4 feet and the area around SP 2 and SP 3 be excavated to a depth of 2 feet. All excavated soil (3000 yards) will be hauled to an OCD approved disposal facility. Once the excavation is complete final 5-point bottom composite samples will be collected not to exceed 500 square feet. Final 5-point wall composite samples will be collected not to exceed 200 square feet. All samples collected will be submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Once laboratory results are below table one standards for releases less than or equal to 50 feet to groundwater the excavation will be backfilled with clean imported topsoil. The disturbed area will be reseeded in accordance with the surface landowner guidelines. The remediation will be completed within 90 days of OCD approval of the plan.

Enclosed: C-141, Groundwater Data, Maps, Sample Data, Laboratory Results, and Revegetation and Noxious Weed Plan.

Submitted by;

Bruce Baker

Environmental Technician
larry.baker@apachecorp.com
Cell# 432-631-6982

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Page 3

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?	50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☑ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☑ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☑ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☑ Field data
- ☑ Data table of soil contaminant concentration data
- ☑ Depth to water determination
- ☑ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☑ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☑ Topographic/Aerial maps
- ☑ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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Page 4

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: Larry Baker Title: Environmental Tech. SR.

Signature: Larry Baker Date: 10/28/2021

email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

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Page 5

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Larry Baker Title: Environmental Tech. SR.

Signature: Larry Baker Date: 10/2/2021

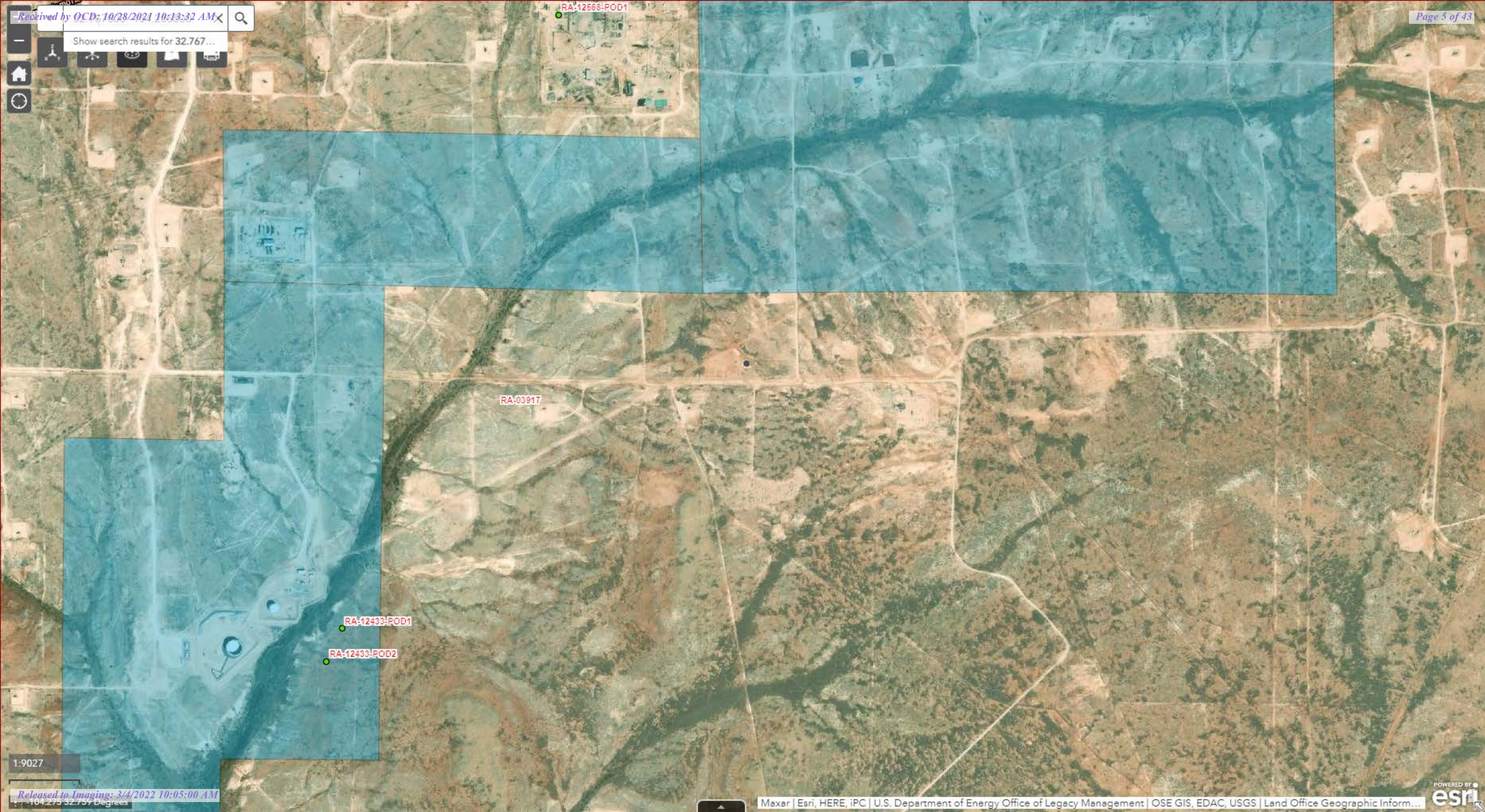
email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____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RA-03917
RA-12433-POD1
RA-12433-POD2
Show search results for 32.767...
1:9027
Maxar | Esri, HERE, iPC | U.S. Department of Energy Office of Legacy Management | OSE GIS, EDAC, USGS | Land Office Geographic Inform...

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	RA 03917	4	1	2	10	18S	27E	569019	3625660*

Driller License: 111 **Driller Company:** BURKE, EDWARD B.

Driller Name:

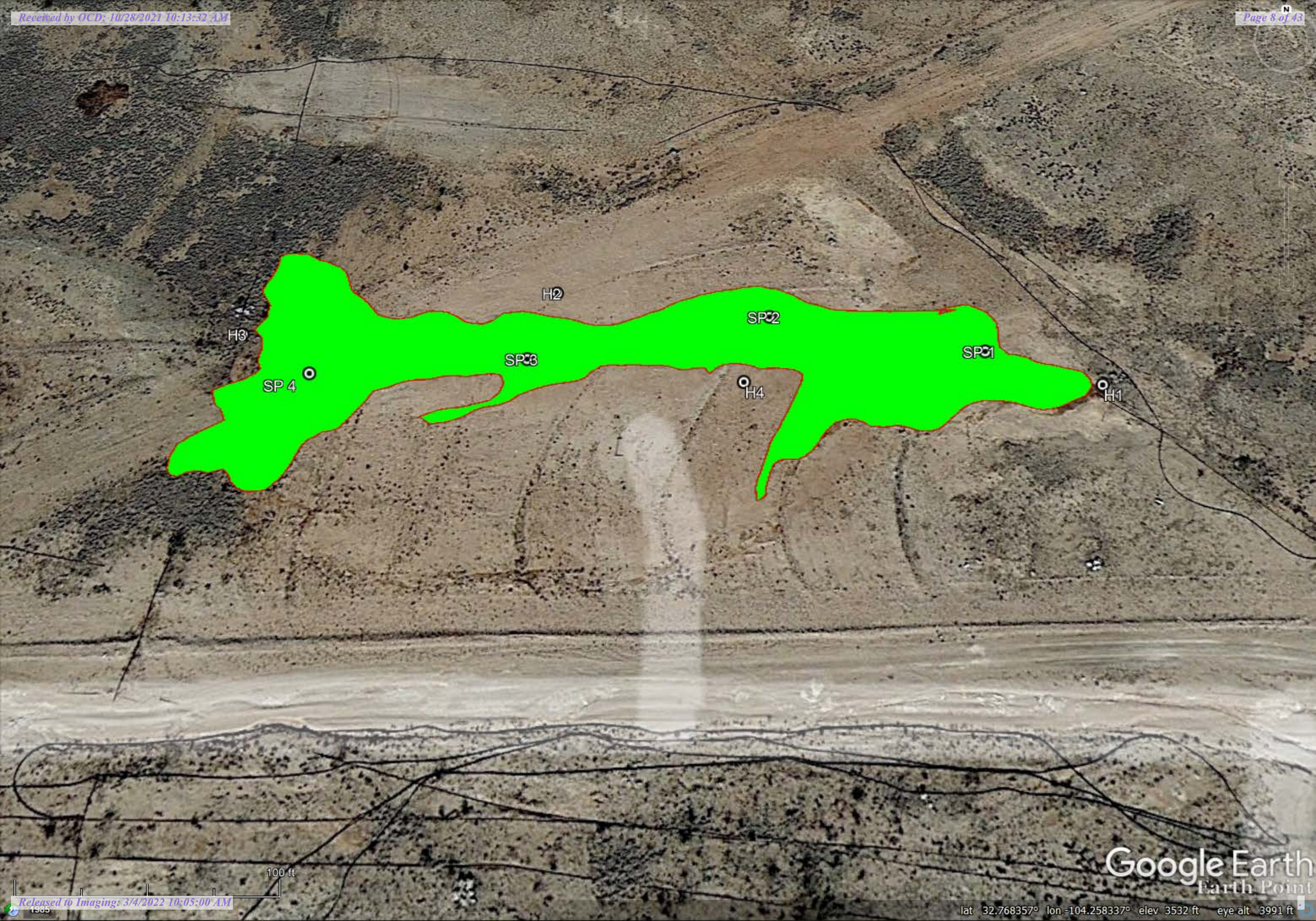
Drill Start Date:	07/31/1958	**Drill Finish Date:**	07/31/1958	**Plug Date:**	
Log File Date:	08/06/1958	**PCW Rcv Date:**		**Source:**	Artesian
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**	130 feet	**Depth Water:**	50 feet

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

Show search results for 32.767...

EMPIRE OIL FIELD
Pumping Sta
Wells
PIPELINE
Draw
Scoggin
Chalk Bluff
Oil Well 3563
Oil Tank
Oil Tanks
Oil Well 3541
Oil Well (Inactive) 3614
Oil Well (Inactive) 3651
Oil Tanks
Oil Tank
Oil Wells (Inactive) 3564
Oil Well 3555
Oil Tank
Oil Well (Inactive) 3591
Oil Well (Inactive) 3567
Oil Well (Inactive) 3629
VABM 3641 △ Chalk
3606 3598 3601 3603 3597 3613 3545 3650 3643 3666 3576 3574 3600 3582 3569 3551 3550 3539 3580 3590 3504 3550 3535 3513 3547 3534 3575 3605 3635 3621 3641 3628 3591 3607 3523 3542 3521 3552 3587 3540 3613 3563 3567 3484 3454 3474 3450 3460 3500 3570
1 2 3 10 11 12 13 14 15

0.4km
0.3mi
-104.28223 32.75900 Degrees


H2
H3
SP 2
SP 3
SP 1
SP 4
H4
H1
100 ft
1985
Google Earth
Earth Point
lat 32.768357° lon -104.258337° elev 3532 ft eye alt 3991 ft

Delineation Samples

Sample Date	Sample ID	Depth	Chloride Lab	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
9/9/2021	SP 1	Surface	1,200	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	208	71	32.7676384, -104.2565565
		1'	4720	<0.050	<0.050	<0.050	45.1	45.1	951	7050	943	
		2'	1540	<0.050	<0.050	<0.050	0.273	<0.300	20.1	599	96.0	
		3'	1250	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	115	16.1	
		4'	544	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	41	<10.0	
		5'	528	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
9/9/2021	SP 2	Surface	15600	<0.050	<0.050	<0.050	<0.150	<0.300	<100	364	94.4	32.7677052, -104.2568891
		1'	1200	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		2'	448	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		3'	480	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
9/9/2021	SP 3	Surface	12200	<0.050	<0.050	<0.050	<0.150	<0.300	62.6	34600	7650	32.7676136, -104.2572679
		1'	1470	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		2'	416	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
9/9/2021	SP 4	Surface	13300	<0.050	<0.050	<0.050	0.349	0.349	<50.0	7,940	1,990	32.7676192, -104.2576062
		1'	2600	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		2'	1570	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.4	<10.0	
		3'	1070	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		4'	768	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.1	<10.0	
		5'	368	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
	H1	Surface	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.7675504, -104.2563295
	H2	Surface	592	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	41	11	32.7677433, -104.2572270
	H3	Surface	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.7678324, -104.2576820
	H4	Surface	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.7675815, -104.2569367

CARDINAL Laboratories

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

September 14, 2021

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EAU M9 EMULSION LINE

Enclosed are the results of analyses for samples received by the laboratory on 09/09/21 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ SURFACE (H212499-01)

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	09/11/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/11/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1200**	16.0	09/13/2021	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	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**208**	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	**71.0**	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *83.2 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *93.7 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 1' (H212499-02)

BTEX 8021B mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	09/11/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.200	0.200	09/11/2021	ND	2.05	103	2.00	0.466	GC-NC
Ethylbenzene*	<0.200	0.200	09/11/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	**45.1**	0.600	09/11/2021	ND	6.14	102	6.00	0.315	
Total BTEX	**45.1**	1.20	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *203 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4720**	16.0	09/13/2021	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**951**	50.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**7050**	50.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	**943**	50.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *245 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *262 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 2' (H212499-03)

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	09/10/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/10/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/10/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	**0.273**	0.150	09/10/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/10/2021	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1540**	16.0	09/13/2021	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*	**20.1**	10.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**599**	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	**96.0**	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *110 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *123 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ SURFACE (H212499-04)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/10/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/10/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/10/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/10/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**15600**	16.0	09/13/2021	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	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**364**	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	**94.4**	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *93.0 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *109 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 1' (H212499-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/10/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/10/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/10/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/10/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1200**	16.0	09/13/2021	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	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *99.0 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *103 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 2' (H212499-06)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/10/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/10/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/10/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/10/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**448**	16.0	09/13/2021	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	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *99.0 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *104 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ SURFACE (H212499-07)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/11/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/11/2021	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**12200**	16.0	09/13/2021	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**62.6**	50.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**34600**	50.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	**7650**	50.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *134 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *1270 %* *38.9-142*

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CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 3' (H212499-08)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/10/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/10/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/10/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/10/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**480**	16.0	09/13/2021	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	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *96.6 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *101 %* *38.9-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 1' (H212499-09)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/10/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/10/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/10/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/10/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1470**	16.0	09/13/2021	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	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *84.6 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *88.2 %* *38.9-142*

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CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 2' (H212499-10)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2021	ND	1.86	92.9	2.00	1.31	
Toluene*	<0.050	0.050	09/11/2021	ND	2.04	102	2.00	1.42	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.01	101	2.00	1.51	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.06	101	6.00	1.38	
Total BTEX	<0.300	0.300	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *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	**416**	16.0	09/13/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *96.7 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *101 %* *38.9-142*

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CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ SURFACE (H212499-11)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2021	ND	1.86	92.9	2.00	1.31	
Toluene*	<0.050	0.050	09/11/2021	ND	2.04	102	2.00	1.42	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.01	101	2.00	1.51	
Total Xylenes*	**0.349**	0.150	09/11/2021	ND	6.06	101	6.00	1.38	
Total BTEX	**0.349**	0.300	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *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	**13300**	16.0	09/13/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS** **S-06**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**7940**	50.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	**1990**	50.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *114 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *342 %* *38.9-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 1' (H212499-12)

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	09/11/2021	ND	1.86	92.9	2.00	1.31	
Toluene*	<0.050	0.050	09/11/2021	ND	2.04	102	2.00	1.42	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.01	101	2.00	1.51	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.06	101	6.00	1.38	
Total BTEX	<0.300	0.300	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2600**	16.0	09/13/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *97.5 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *103 %* *38.9-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 2' (H212499-13)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2021	ND	1.86	92.9	2.00	1.31	
Toluene*	<0.050	0.050	09/11/2021	ND	2.04	102	2.00	1.42	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.01	101	2.00	1.51	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.06	101	6.00	1.38	
Total BTEX	<0.300	0.300	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *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	**1570**	16.0	09/13/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**10.4**	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *93.1 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *98.6 %* *38.9-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 3' (H212499-14)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2021	ND	1.86	92.9	2.00	1.31	
Toluene*	<0.050	0.050	09/11/2021	ND	2.04	102	2.00	1.42	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.01	101	2.00	1.51	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.06	101	6.00	1.38	
Total BTEX	<0.300	0.300	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *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	**1250**	16.0	09/13/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**115**	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	**16.1**	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *91.7 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *100 %* *38.9-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 4' (H212499-15)

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	09/11/2021	ND	1.86	92.9	2.00	1.31	
Toluene*	<0.050	0.050	09/11/2021	ND	2.04	102	2.00	1.42	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.01	101	2.00	1.51	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.06	101	6.00	1.38	
Total BTEX	<0.300	0.300	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *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	**544**	16.0	09/13/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**40.8**	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *91.7 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *97.4 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 3' (H212499-16)

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	09/11/2021	ND	1.86	92.9	2.00	1.31	
Toluene*	<0.050	0.050	09/11/2021	ND	2.04	102	2.00	1.42	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.01	101	2.00	1.51	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.06	101	6.00	1.38	
Total BTEX	<0.300	0.300	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *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	**1070**	16.0	09/13/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *99.2 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *104 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 4' (H212499-17)

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	09/11/2021	ND	1.86	92.9	2.00	1.31	
Toluene*	<0.050	0.050	09/11/2021	ND	2.04	102	2.00	1.42	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.01	101	2.00	1.51	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.06	101	6.00	1.38	
Total BTEX	<0.300	0.300	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *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	**768**	16.0	09/13/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**10.1**	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *96.4 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *101 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 5' (H212499-18)

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	09/11/2021	ND	1.86	92.9	2.00	1.31	
Toluene*	<0.050	0.050	09/11/2021	ND	2.04	102	2.00	1.42	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.01	101	2.00	1.51	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.06	101	6.00	1.38	
Total BTEX	<0.300	0.300	09/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *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	**368**	16.0	09/13/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2021	ND	216	108	200	1.73	
DRO >C10-C28*	<10.0	10.0	09/12/2021	ND	220	110	200	1.48	
EXT DRO >C28-C36	<10.0	10.0	09/12/2021	ND					

Surrogate: 1-Chlorooctane *95.5 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *99.3 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 5' (H212499-19)

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	09/11/2021	ND	1.86	92.9	2.00	1.31	
Toluene*	<0.050	0.050	09/11/2021	ND	2.04	102	2.00	1.42	
Ethylbenzene*	<0.050	0.050	09/11/2021	ND	2.01	101	2.00	1.51	
Total Xylenes*	<0.150	0.150	09/11/2021	ND	6.06	101	6.00	1.38	
Total BTEX	<0.300	0.300	09/11/2021	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	**528**	16.0	09/13/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2021	ND	216	108	200	1.73	
DRO >C10-C28*	<10.0	10.0	09/12/2021	ND	220	110	200	1.48	
EXT DRO >C28-C36	<10.0	10.0	09/12/2021	ND					

Surrogate: 1-Chlorooctane *102 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *107 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache
Project Manager: Jebb Brown
Address:
City: Hobbs State: NM Zip: 88240
Phone #: Fax #:
Project #: Project Owner:
Project Name:
Project Location: EAU M4 Emulsion Line
Sampler Name: Joe Quesada Jr.

BILL TO

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

ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE	COOL	OTHER:	SAMPLING: DATE	TIME	BTEX	TPH 8015	Cl
H212499																		
1	Sp1 @ Surface	G	1			X						X		9-9	1:13	X	X	X
2	Sp1 @ 1'														1:15	X	X	X
3	Sp1 @ 2'														1:17	X	X	X
4	Sp2 @ Surface														1:19	X	X	X
5	Sp2 @ 1'														1:21	X	X	X
6	Sp2 @ 2'														1:23	X	X	X
7	Sp2 @ Surface														1:07	X	X	X
8	Sp2 @ 3'														1:32	X	X	X
9	Sp3 @ 1'														1:04	X	X	X
10	Sp3 @ 2'	G	1			1						X		9-9	1:11	X	X	X

Relinquished By: Joe Quesada Jr. Date: 9-9-21 Time: 1630
Received By: Tamara Oldaker
Relinquished By: Date: Time:
Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:
Observed Temp. °C 6.8
Corrected Temp. °C
Sample Condition: Cool ☐ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) JQ

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113
Correction Factor None
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No
Observed Temp. °C
Corrected Temp. °C

FORM-006 R 3.1 06/04/20

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

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache
Project Manager: Jeff Boom
Address:
City: Hobbs State: NM Zip: 88240
Phone #: Fax #:
Project #: Project Owner:
Project Name:
Project Location: EAU 1H, Emulsion Line
Sampler Name: Joe Quesada Jr.

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CL	Ext.TPH	BTEX
H212499																	
11	Sp4 @ Surface	G	1			1					1		9.9	1:25	X	X	X
12	Sp4 @ 1'													1:27	X	X	X
13	Sp4 @ 2'													1:29	X	X	X
14	Sp1 @ 3'													1:44	X	X	X
15	Sp1 @ 4'													1:46	X	X	X
16	Sp4 @ 3'													1:48	X	X	X
17	Sp4 @ 4													1:50	X	X	X
18	Sp4 @ 5'													1:52	X	X	X
19	Sp1 @ 5'	G	1			1					1		9/9	3:02	X	X	X

Relinquished By: Date: 9-9-21 Time: 1630 Received By: Tamara Oldaker
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 6.8 Corrected Temp. °C
Sample Condition: Cool ☐ Yes ☑ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) TO

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113 Correction Factor None
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.1 06/04/20

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

CARDINAL Laboratories

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

September 14, 2021

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EAU M9 EMULSION LINE

Enclosed are the results of analyses for samples received by the laboratory on 09/09/21 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: H 1 (H212498-01)

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	09/10/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/10/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/10/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/10/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/10/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/13/2021	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	09/11/2021	ND	218	109	200	3.95	
DRO >C10-C28*	<10.0	10.0	09/11/2021	ND	220	110	200	3.59	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *90.8 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *89.0 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: H 2 (H212498-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/10/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/10/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/10/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/10/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**592**	16.0	09/13/2021	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	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	**41.4**	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	**11.0**	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *105 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *111 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: H 3 (H212498-03)

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	09/10/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/10/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/10/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/10/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/10/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/13/2021	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	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *86.2 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *90.9 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2021	Sampling Date:	09/09/2021
Reported:	09/14/2021	Sampling Type:	Soil
Project Name:	EAU M9 EMULSION LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: H 4 (H212498-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2021	ND	1.88	94.0	2.00	0.282	
Toluene*	<0.050	0.050	09/10/2021	ND	2.05	103	2.00	0.466	
Ethylbenzene*	<0.050	0.050	09/10/2021	ND	2.03	102	2.00	0.0987	
Total Xylenes*	<0.150	0.150	09/10/2021	ND	6.14	102	6.00	0.315	
Total BTEX	<0.300	0.300	09/10/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	09/13/2021	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	09/11/2021	ND	216	108	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/11/2021	ND	221	111	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	09/11/2021	ND					

Surrogate: 1-Chlorooctane *94.9 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *99.3 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache
Project Manager: Jeff Brown
Address:
City: Hobbs State: NM Zip: 88240
Phone #: Fax #:
Project #: Project Owner:
Project Name:
Project Location: Ethyl ma Emulsion Line
Sampler Name: Joe Chestnut Jr.

BILL TO

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

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	(ICE) COOL	OTHER:	SAMPLING DATE	SAMPLING TIME	C/	Ext TPH	BTEX
H212498																	
1	H1	C	1			X					X		9-9	2:48	X	X	X
2	H2	G	1			X					X		9-9	2:50	X	X	X
3	H3	G	1			X					X		9-9	2:52	X	X	X
4	H4	G	1			X					X		9-9	2:54	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Date: 9-9-21 Time: 1632 Received By:
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:
Observed Temp. °C 6.8
Corrected Temp. °C
Sample Condition: Cool ☐ Yes ☑ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) TO

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113
Correction Factor None
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.1 06/04/20

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

EAU M-9 Emulsion Trunk Line
nAPP2121456443
Revegetation
And
Noxious Weed Plan

Revegetation Plan:

All the disturbed area in the pasture will be properly prepared and reseeded with BLM # 2. The disturbed area will be monitored to ensure successful revegetation is achieved. If revegetation is not successful after a couple of growing seasons the site will be reseeded.

Noxious Weed Plan:

Apache Corporation will treat noxious weeds if they become established within the area of remediation. Weed control will be maintained on the disturbed land where noxious weeds exist both prior to remediation and restoration. Apache Corporation will consult with the Authorized Officer for acceptable weed control methods.

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2121456443
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Larry Baker Title: Environmental Tech. SR.

Signature: Larry Baker Date: 10/2/2021

email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: Robert Hamlet Date: 3/4/2022

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

Signature: Robert Hamlet Date: 3/4/2022

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 58359

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 58359
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Workplan/Remediation Plan is approved with the following conditions: Sidewall/floor samples need to comply with the strictest closure criteria limits 600 mg/kg for Chlorides and 100 mg/kg TPH. The variance for 500 ft2 confirmation floor samples is approved. Please collect confirmation sidewall samples, representing no more than 200 ft2. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The work will need to occur in 90 days after the work plan has been approved.	3/4/2022