



303 Veterans Airpark Lane Midland, TX 79705

## **Remediation Plan**

December 1, 2021

Re: Jr. Phillips #8

Case: nAPP2125058409

### **Background:**

On 8/26/2021 a release occurred due to a steel flow line failed. The release (GPS: 32.604069, -103.305276) is located west of Monument, New Mexico in unit letter G section 1 township 20S range 36E. A groundwater survey was conducted utilizing NMOSE wells of record. The nearest well of record suggest the groundwater depth below the release to be 35 feet below ground surface.

On 9/27/2021 through 10/19/2021 vertical delineation was conducted in regular intervals utilizing a backhoe to depths of 2, 16, and 20 feet. All vertical samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Horizontal 5 - point surface field samples were collected not exceeding 200 square feet and titrated for chlorides. Laboratory results on the horizontal samples were above table one standards for TPH. On 11/30/2021 further 5-point surface composite samples were collected and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX

### **Remediation Plan:**

Apache Corporation purposes that the area around SP1 be excavated to a depth of 20 feet. The area around SP2 be excavated to a depth of 16 feet. The area around SP3 be excavated to a depth of 2 feet. Final 5 -point bottom and wall samples will be collected not to exceed 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. All excavated material (2500 yards) will be hauled to an OCD approved disposal facility. Once laboratory results confirmed table one standard for releases less than 50 feet to groundwater the release area will be backfilled with clean imported caliche and the top four feet with clean imported topsoil to ground surface and contoured to the surrounding area. The disturbed area will be reseeded in accordance with the surface landowner. The remediation will be completed within 90 days of OCD approval of the plan.

Enclosed: C-141, Groundwater Data, Maps, Sample Data, and Laboratory Results

Submitted by;

*Bruce Baker*

**Environmental Technician**

[larry.baker@apachecorp.com](mailto:larry.baker@apachecorp.com)

**Cell# 432-631-6982**

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?	<u>35</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
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: 11/30/2021  
email: larry.baker@apachecorp.com Telephone: 432-215-2284

**OCD Only**

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

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: 11/30/2021  
email: larry.baker@apachecorp.com Telephone: 432-215-2284

**OCD Only**

Received by: Chad Hensley Date: 01/12/2022

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

Signature: Chad Hensley Date: 01/12/2022



Show search results for 32.604...

Map navigation controls: Home, Previous View, Next View, Full Screen, Print, Measure, Identify, Layers, Legend, Scale Bar, North Arrow, etc.


Map data labels:

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- L-12434-POD1
- L-12993-POD6
- L-12993-POD2
- L-12435-POD1
- L-12431-POD1
- L-12432-POD1
- L-12993-POD5
- L-12993-POD3
- L-12993-POD4
- L-12993-POD7
- L-12993-POD8
- L-05766-X8
- L-05766-X9
- L-12993-POD9
- L-03188
- L-03814



# 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	
L	03814	2	2	2	01	20S	36E	659488	3609171*	
Driller License: 208		Driller Company:				VAN NOY, W.L.				
Driller Name:										
Drill Start Date:	09/03/1958	Drill Finish Date:				09/04/1958		Plug Date:		
Log File Date:	09/15/1958	PCW Rev Date:				Source:				
Pump Type:		Pipe Discharge Size:				Estimated Yield:				
Casing Size:	6.00	Depth Well:				60 feet		Depth Water:		40 feet
Water Bearing Stratifications:					Top	Bottom	Description			
					55	60	Sandstone/Gravel/Conglomerate			
Casing Perforations:					Top	Bottom				
					40	60				

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.


11/29/21 3:01 PM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)							(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	
L	12432 POD1	3	2	1	01	20S	36E	658506	3608985	
Driller License: 225		Driller Company:				RODGERS & CO., INC.				
Driller Name: JOHN AGUIRRE										
Drill Start Date: 06/12/2009		Drill Finish Date:				06/12/2009		Plug Date:		
Log File Date: 07/13/2009		PCW Rev Date:							Source: Shallow	
Pump Type:		Pipe Discharge Size:				Estimated Yield:				
Casing Size: 4.00		Depth Well:				45 feet		Depth Water:		35 feet
Water Bearing Stratifications:					Top	Bottom	Description			
					6	36	Other/Unknown			
					36	45	Other/Unknown			

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

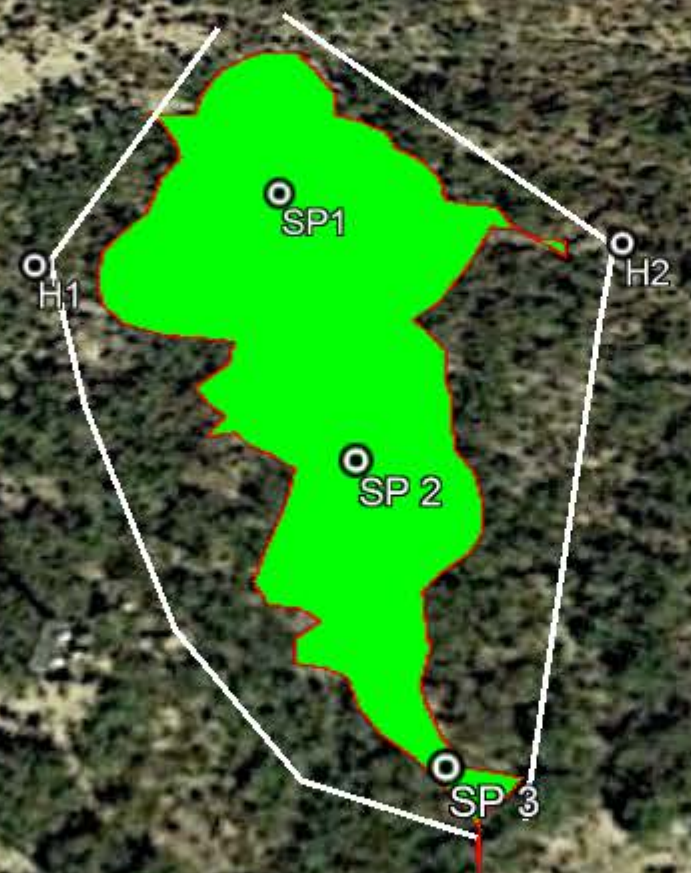
11/29/21 3:03 PM

POINT OF DIVERSION SUMMARY



Released to Imaging: 1/12/2022 8:50:19 AM  
-103.335 32.589 Degrees







## Delineation Samples

Sample Date	Sample ID	Depth	Chloride Lab	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
9/27/2021	SP1	Surface	368	<0.050	<0.050	<0.050	2.79	2.79	313	26,500	8,100	32.6040445, -103.3052805
		2'	720	<0.050	<0.050	<0.050	2.79	2.79	156	1850	314	
		4'	560	<0.050	<0.050	<0.050	8.43	8.43	391	3,060	579	
		6'	1010	<0.050	<0.050	<0.050	1.91	1.91	126	1,150	154	
		8'	512	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	17.2	<10.0	
		10'	1340	<0.050	<0.050	<0.050	2.52	2.52	167	1,960	359	
		12'	1520	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	109	<10.0	
10/5/2021		14'	1550	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	39.8	<10.0	
		16'	1390	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	36.5	<10.0	
10/19/2021		18'	1500									
		20'	32									
9/27/2021	SP2	Surface	832	<0.050	<0.050	<0.050	1.23	1.23	162	11,600	3,730	32.6039448, -103.3052132
		2'	304	<0.050	<0.050	<0.050	3.29	3.29	90	1,160	270	
		4'	544	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		6'	1620	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		8'	944	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	53.4	<10.0	
10/5/2021		10'	1120									
		12'	1170									
		14'	752									
10/19/2021		16'	336									
9/27/2021	SP3	Surface	80.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	13,500	4,470	32.6038033, -103.3051867
		2'	16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
9/27/2021	H1	Surface	320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	60.1	89.9	
	H2	Surface	304	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	130	142	
11/30/2021	H1	Surface	16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.604021, -103.305378
	H2	Surface	16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.604041, -103.305122





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

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September 30, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: J R PHILLIPS #8

Enclosed are the results of analyses for samples received by the laboratory on 09/27/21 16:35.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	09/27/2021	Sampling Date:	09/27/2021
Reported:	09/30/2021	Sampling Type:	Soil
Project Name:	J R PHILLIPS #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MONUMENT, NM		

**Sample ID: SP 1 @ SURFACE (H212685-01)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/29/2021	ND	1.91	95.3	2.00	6.43	
Toluene*	<0.050	0.050	09/29/2021	ND	1.97	98.5	2.00	3.89	GC-NC
Ethylbenzene*	<0.050	0.050	09/29/2021	ND	1.88	94.2	2.00	3.39	
<b>Total Xylenes*</b>	<b>2.79</b>	0.150	09/29/2021	ND	5.73	95.6	6.00	4.06	GC-NC1
<b>Total BTX</b>	<b>2.79</b>	0.300	09/29/2021	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 284 % 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
<b>Chloride</b>	<b>368</b>	16.0	09/28/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>313</b>	100	09/29/2021	ND	196	97.8	200	0.304	
<b>DRO &gt;C10-C28*</b>	<b>26500</b>	100	09/29/2021	ND	215	108	200	1.01	
<b>EXT DRO &gt;C28-C36</b>	<b>8100</b>	100	09/29/2021	ND					

Surrogate: 1-Chlorooctane 139 % 44.3-133

Surrogate: 1-Chlorooctadecane 751 % 38.9-142

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: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 2' (H212685-02)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/28/2021	ND	1.91	95.3	2.00	6.43	
Toluene*	<0.050	0.050	09/28/2021	ND	1.97	98.5	2.00	3.89	GC-NC
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.88	94.2	2.00	3.39	
Total Xylenes*	2.49	0.150	09/28/2021	ND	5.73	95.6	6.00	4.06	GC-NC1
Total BTEX	2.49	0.300	09/28/2021	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 255 % 69.9-140

Chloride, SM4500CI-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>720</b>	16.0	09/28/2021	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>156</b>	50.0	09/28/2021	ND	196	97.8	200	0.304	
<b>DRO &gt;C10-C28*</b>	<b>1850</b>	50.0	09/28/2021	ND	215	108	200	1.01	
<b>EXT DRO &gt;C28-C36</b>	<b>314</b>	50.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 99.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 107 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 4' (H212685-03)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/29/2021	ND	1.91	95.3	2.00	6.43	
Toluene*	<0.050	0.050	09/29/2021	ND	1.97	98.5	2.00	3.89	GC-NC
Ethylbenzene*	<0.050	0.050	09/29/2021	ND	1.88	94.2	2.00	3.39	
Total Xylenes*	8.43	0.150	09/29/2021	ND	5.73	95.6	6.00	4.06	GC-NC1
Total BTX	8.43	0.300	09/29/2021	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 456 % 69.9-140

Chloride, SM4500CI-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>560</b>	16.0	09/28/2021	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>391</b>	50.0	09/28/2021	ND	196	97.8	200	0.304	
<b>DRO &gt;C10-C28*</b>	<b>3060</b>	50.0	09/28/2021	ND	215	108	200	1.01	
<b>EXT DRO &gt;C28-C36</b>	<b>579</b>	50.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 107 % 44.3-133

Surrogate: 1-Chlorooctadecane 122 % 38.9-142

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: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 6' (H212685-04)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/28/2021	ND	1.91	95.3	2.00	6.43	
Toluene*	<0.050	0.050	09/28/2021	ND	1.97	98.5	2.00	3.89	GC-NC
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.88	94.2	2.00	3.39	
Total Xylenes*	1.91	0.150	09/28/2021	ND	5.73	95.6	6.00	4.06	GC-NC1
Total BTX	1.91	0.300	09/28/2021	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 213 % 69.9-140

Chloride, SM4500CI-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1010</b>	16.0	09/28/2021	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>126</b>	50.0	09/28/2021	ND	196	97.8	200	0.304	
<b>DRO &gt;C10-C28*</b>	<b>1150</b>	50.0	09/28/2021	ND	215	108	200	1.01	
<b>EXT DRO &gt;C28-C36</b>	<b>154</b>	50.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 96.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 96.9 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 8' (H212685-05)**

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	09/28/2021	ND	1.91	95.3	2.00	6.43		
Toluene*	<0.050	0.050	09/28/2021	ND	1.97	98.5	2.00	3.89		
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.88	94.2	2.00	3.39		
Total Xylenes*	<0.150	0.150	09/28/2021	ND	5.73	95.6	6.00	4.06		
Total BTEx	<0.300	0.300	09/28/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	09/28/2021	ND	432	108	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	09/28/2021	ND	196	97.8	200	0.304	
DRO >C10-C28*	17.2	10.0	09/28/2021	ND	215	108	200	1.01	
EXT DRO >C28-C36	<10.0	10.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 83.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 73.9 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 10' (H212685-06)**

BTX 8021B			mg/kg		Analyzed By: MS			S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/28/2021	ND	1.91	95.3	2.00	6.43	
Toluene*	<0.050	0.050	09/28/2021	ND	1.97	98.5	2.00	3.89	GC-NC
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.88	94.2	2.00	3.39	
Total Xylenes*	2.52	0.150	09/28/2021	ND	5.73	95.6	6.00	4.06	GC-NC1
Total BTX	2.52	0.300	09/28/2021	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 251 % 69.9-140

Chloride, SM4500CI-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1340</b>	16.0	09/28/2021	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>167</b>	50.0	09/28/2021	ND	196	97.8	200	0.304	
<b>DRO &gt;C10-C28*</b>	<b>1960</b>	50.0	09/28/2021	ND	215	108	200	1.01	
<b>EXT DRO &gt;C28-C36</b>	<b>359</b>	50.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 108 % 44.3-133

Surrogate: 1-Chlorooctadecane 116 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 12' (H212685-07)**

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	09/28/2021	ND	1.91	95.3	2.00	6.43		
Toluene*	<0.050	0.050	09/28/2021	ND	1.97	98.5	2.00	3.89		
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.88	94.2	2.00	3.39		
Total Xylenes*	<0.150	0.150	09/28/2021	ND	5.73	95.6	6.00	4.06		
Total BTX	<0.300	0.300	09/28/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1520	16.0	09/28/2021	ND	432	108	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	09/28/2021	ND	196	97.8	200	0.304	
DRO >C10-C28*	109	10.0	09/28/2021	ND	215	108	200	1.01	
EXT DRO >C28-C36	<10.0	10.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 83.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 74.5 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ SURFACE (H212685-08)**

BTX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/29/2021	ND	1.83	91.5	2.00	3.57	
Toluene*	<0.050	0.050	09/29/2021	ND	1.99	99.7	2.00	2.66	GC-NC
Ethylbenzene*	<0.050	0.050	09/29/2021	ND	1.92	96.2	2.00	3.52	
<b>Total Xylenes*</b>	<b>1.23</b>	0.150	09/29/2021	ND	5.82	97.1	6.00	2.95	GC-NC1
<b>Total BTX</b>	<b>1.23</b>	0.300	09/29/2021	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 166 % 69.9-140

Chloride, SM4500CI-B		mg/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>832</b>	16.0	09/28/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>162</b>	50.0	09/29/2021	ND	196	97.8	200	0.304	
<b>DRO &gt;C10-C28*</b>	<b>11600</b>	50.0	09/29/2021	ND	215	108	200	1.01	
<b>EXT DRO &gt;C28-C36</b>	<b>3730</b>	50.0	09/29/2021	ND					

Surrogate: 1-Chlorooctane 93.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 368 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 2' (H212685-09)**

BTEx 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/28/2021	ND	1.83	91.5	2.00	3.57	
Toluene*	<0.050	0.050	09/28/2021	ND	1.99	99.7	2.00	2.66	GC-NC
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.92	96.2	2.00	3.52	
Total Xylenes*	3.29	0.150	09/28/2021	ND	5.82	97.1	6.00	2.95	GC-NC1
Total BTEx	3.39	0.300	09/28/2021	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 236 % 69.9-140

Chloride, SM4500CI-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>304</b>	16.0	09/28/2021	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
<b>GRO C6-C10*</b>	<b>90.4</b>	10.0	09/28/2021	ND	196	97.8	200	0.304	
<b>DRO &gt;C10-C28*</b>	<b>1160</b>	10.0	09/28/2021	ND	215	108	200	1.01	
<b>EXT DRO &gt;C28-C36</b>	<b>270</b>	10.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 91.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 96.6 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 4' (H212685-10)**

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	09/28/2021	ND	1.83	91.5	2.00	3.57	
Toluene*	<0.050	0.050	09/28/2021	ND	1.99	99.7	2.00	2.66	
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.92	96.2	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/28/2021	ND	5.82	97.1	6.00	2.95	
Total BTX	<0.300	0.300	09/28/2021	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	09/28/2021	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	09/28/2021	ND	196	97.8	200	0.304	
DRO >C10-C28*	<10.0	10.0	09/28/2021	ND	215	108	200	1.01	
EXT DRO >C28-C36	<10.0	10.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 83.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 72.6 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 6' (H212685-11)**

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	09/28/2021	ND	1.83	91.5	2.00	3.57	
Toluene*	<0.050	0.050	09/28/2021	ND	1.99	99.7	2.00	2.66	
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.92	96.2	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/28/2021	ND	5.82	97.1	6.00	2.95	
Total BTX	<0.300	0.300	09/28/2021	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1620	16.0	09/28/2021	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	09/28/2021	ND	196	97.8	200	0.304	
DRO >C10-C28*	<10.0	10.0	09/28/2021	ND	215	108	200	1.01	
EXT DRO >C28-C36	<10.0	10.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 79.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 68.6 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 8' (H212685-12)**

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	09/28/2021	ND	1.83	91.5	2.00	3.57		
Toluene*	<0.050	0.050	09/28/2021	ND	1.99	99.7	2.00	2.66		
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.92	96.2	2.00	3.52		
Total Xylenes*	<0.150	0.150	09/28/2021	ND	5.82	97.1	6.00	2.95		
Total BTX	<0.300	0.300	09/28/2021	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	944	16.0	09/28/2021	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	09/28/2021	ND	196	97.8	200	0.304	
DRO >C10-C28*	53.4	10.0	09/28/2021	ND	215	108	200	1.01	
EXT DRO >C28-C36	<10.0	10.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 76.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 67.5 % 38.9-142

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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: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 @ SURFACE (H212685-13)**

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	09/29/2021	ND	1.83	91.5	2.00	3.57		
Toluene*	<0.050	0.050	09/29/2021	ND	1.99	99.7	2.00	2.66		
Ethylbenzene*	<0.050	0.050	09/29/2021	ND	1.92	96.2	2.00	3.52		
Total Xylenes*	<0.150	0.150	09/29/2021	ND	5.82	97.1	6.00	2.95		
Total BTEx	<0.300	0.300	09/29/2021	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	09/28/2021	ND	416	104	400	0.00		

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	09/28/2021	ND	196	97.8	200	0.304	
DRO >C10-C28*	13500	50.0	09/28/2021	ND	215	108	200	1.01	
EXT DRO >C28-C36	4470	50.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 82.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 472 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 @ 2' (H212685-14)**

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	09/28/2021	ND	1.83	91.5	2.00	3.57		
Toluene*	<0.050	0.050	09/28/2021	ND	1.99	99.7	2.00	2.66		
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.92	96.2	2.00	3.52		
Total Xylenes*	<0.150	0.150	09/28/2021	ND	5.82	97.1	6.00	2.95		
Total BTX	<0.300	0.300	09/28/2021	ND						

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

Chloride, SM4500CI-B			mg/kg							
			Analyzed By: GM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/28/2021	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	09/28/2021	ND	196	97.8	200	0.304		
DRO >C10-C28*	<10.0	10.0	09/28/2021	ND	215	108	200	1.01		
EXT DRO >C28-C36	<10.0	10.0	09/28/2021	ND						

Surrogate: 1-Chlorooctane 85.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 74.6 % 38.9-142

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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: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: H 1 (H212685-15)**

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	09/28/2021	ND	1.83	91.5	2.00	3.57		
Toluene*	<0.050	0.050	09/28/2021	ND	1.99	99.7	2.00	2.66		
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.92	96.2	2.00	3.52		
Total Xylenes*	<0.150	0.150	09/28/2021	ND	5.82	97.1	6.00	2.95		
Total BTEx	<0.300	0.300	09/28/2021	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	09/28/2021	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	09/28/2021	ND	196	97.8	200	0.304	
DRO >C10-C28*	60.1	10.0	09/28/2021	ND	215	108	200	1.01	
EXT DRO >C28-C36	89.9	10.0	09/28/2021	ND					

Surrogate: 1-Chlorooctane 81.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 74.7 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 09/27/2021  
 Reported: 09/30/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 09/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: H 2 (H212685-16)**

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	09/28/2021	ND	1.83	91.5	2.00	3.57	
Toluene*	<0.050	0.050	09/28/2021	ND	1.99	99.7	2.00	2.66	
Ethylbenzene*	<0.050	0.050	09/28/2021	ND	1.92	96.2	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/28/2021	ND	5.82	97.1	6.00	2.95	
Total BTX	<0.300	0.300	09/28/2021	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	09/28/2021	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	09/29/2021	ND	196	97.8	200	0.304	
DRO >C10-C28*	130	10.0	09/29/2021	ND	215	108	200	1.01	
EXT DRO >C28-C36	142	10.0	09/29/2021	ND					

Surrogate: 1-Chlorooctane 86.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 86.5 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
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

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

Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Apache</u>		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>			
Project Manager: <u>Bruce Baker</u>		P.O. #:					
Address:		Company:					
City: <u>Hobbs</u>		Attn:					
State: <u>NM</u> Zip: <u>88240</u>		Address:					
Phone #:		City:					
Fax #:		State:					
Project #: <u>11635</u>		Zip:					
Project Name:		Phone #:					
Project Location: <u>Dr Phillips S</u>		Fax #:					
Sampler Name: <u>Det Lunsford</u>							
FOR LAB USE ONLY							
Lab I.D.	Sample I.D.	(G)RAD OR (C)OMP.	# CONTAINERS				
		GROUNDWATER					
		WASTEWATER					
		SOIL					
		OIL					
		SLUDGE					
		OTHER:					
		ACID/BASE:					
		ICE/COOL					
		OTHER:					
		DATE	TIME				
<u>10121685</u>	<u>SP1 Surface</u>	<u>9-27</u>	<u>2:54</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>2</u>	<u>SP1 @ 2'</u>	<u>9-27</u>	<u>2:56</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>3</u>	<u>SP1 @ 4'</u>	<u>9-27</u>	<u>2:58</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>4</u>	<u>SP1 @ 6'</u>	<u>9-27</u>	<u>3:00</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>5</u>	<u>SP1 @ 8'</u>	<u>9-27</u>	<u>3:02</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>6</u>	<u>SP1 @ 10'</u>	<u>9-27</u>	<u>3:04</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>7</u>	<u>SP1 @ 12'</u>	<u>9-27</u>	<u>3:06</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>8</u>	<u>SP2 Surface</u>	<u>9-27</u>	<u>3:34</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>9</u>	<u>SP2 @ 2'</u>	<u>9-27</u>	<u>3:36</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>10</u>	<u>SP2 @ 4'</u>	<u>9-27</u>	<u>3:38</u>	<u>X</u>	<u>X</u>	<u>X</u>	

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Reinquinshed By: Det Lunsford Date: 9-27 Received By: Yunara Alabaz

Reinquinshed By: Det Lunsford Date: 11-35 Received By: Yunara Alabaz

Delivered By: (Circle One) Observed Temp. °C 6.1 Sample Condition Cool Intact CHECKED BY: (Initials) Y.A.

Sampler - UPS - Bus - Other: Corrected Temp. °C 5.6 ☐ Yes ☐ No ☐ Yes ☐ No

Turnaround Time: Standard ☒ Rush ☐ Bacteria (only) ☐ Sample Condition ☐ Cool Intact ☐ Yes ☐ No ☐ No ☐ No ☐ No ☐ No

Thermometer ID #113 0.5°C Correction Factor None

REMARKS:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:

All Results are emailed. Please provide Email address:

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



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Agave</u>		P.O. #:		BILL TO										ANALYSIS REQUEST																															
Project Manager: <u>Bruce Baker</u>		Company:																																											
Address:		Attn:																																											
City: <u>Hobbs</u>		State: <u>NM</u>		Zip: <u>88240</u>																																									
Phone #:		Address:																																											
Project #:		City:																																											
Project Name:		State:		Zip:																																									
Project Location: <u>Jr Phillips #6</u>		Phone #:																																											
Sample Name: <u>Jr Phillips #6</u>		Fax #:																																											
FOR LAB USE ONLY		Matrix		PRESERV		SAMPLING																																							
Lab I.D.		Sample I.D.		(G)RAP (C)OMP		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		(ICE) COOL		OTHER :		DATE		TIME		C/		Ext. TPH		BTEX											
11		SP2 Q6		X		1		X		X		X		X		X		X		X		X		X		9-27		3:13		X		X		X											
12		SP2 Q6		X		1		X		X		X		X		X		X		X		X		X		9-27		3:40		X		X		X											
13		SP3 Soften		X		1		X		X		X		X		X		X		X		X		X		9-27		3:42		X		X		X											
14		SP3 Q2		X		1		X		X		X		X		X		X		X		X		X		9-27		3:44		X		X		X											
15		H1		X		1		X		X		X		X		X		X		X		X		X		9-27		3:46		X		X		X											
16		H2		X		1		X		X		X		X		X		X		X		X		X		9-27		3:48		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 analysis. 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: <u>[Signature]</u>		Date: <u>9-27</u>		Received By: <u>[Signature]</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:																																			
Relinquished By: <u>[Signature]</u>		Date: <u>9-27</u>		Received By: <u>[Signature]</u>		REMARKS:																																							
Delivered By: (Circle One)		Observed Temp. °C		Sample Condition		CHECKED BY: (Initials)		Turnaround Time:		Standard		Bacteria (only)		Sample Condition																															
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool Intact		Y		Thermometer ID #113		Rush		Cool Intact		Observed Temp. °C																															
FORM-006 R-3-1 06/04/20		5.6		Yes		Y		Correction Factor None		None		Yes		Corrected Temp. °C																															



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

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October 07, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: J R PHILLIPS #8

Enclosed are the results of analyses for samples received by the laboratory on 10/05/21 16:55.

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](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".

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:	10/05/2021	Sampling Date:	10/04/2021
Reported:	10/07/2021	Sampling Type:	Soil
Project Name:	J R PHILLIPS #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MONUMENT, NM		

**Sample ID: SP 1 @ 14' (H212768-01)**

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	10/06/2021	ND	2.00	100	2.00	8.24		
Toluene*	<0.050	0.050	10/06/2021	ND	1.96	97.8	2.00	8.69		
Ethylbenzene*	<0.050	0.050	10/06/2021	ND	1.92	96.2	2.00	8.30		
Total Xylenes*	<0.150	0.150	10/06/2021	ND	5.86	97.6	6.00	7.65		
Total BTX	<0.300	0.300	10/06/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	1550	16.0	10/06/2021	ND	432	108	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	10/06/2021	ND	191	95.4	200	1.90	
DRO >C10-C28*	39.8	10.0	10/06/2021	ND	218	109	200	8.17	
EXT DRO >C28-C36	<10.0	10.0	10/06/2021	ND					

Surrogate: 1-Chlorooctane 86.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 77.4 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 10/05/2021  
 Reported: 10/07/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 10/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 16' (H212768-02)**

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	10/06/2021	ND	2.00	100	2.00	8.24	
Toluene*	<0.050	0.050	10/06/2021	ND	1.96	97.8	2.00	8.69	
Ethylbenzene*	<0.050	0.050	10/06/2021	ND	1.92	96.2	2.00	8.30	
Total Xylenes*	<0.150	0.150	10/06/2021	ND	5.86	97.6	6.00	7.65	
Total BTEx	<0.300	0.300	10/06/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1390	16.0	10/06/2021	ND	432	108	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	10/06/2021	ND	191	95.4	200	1.90	
DRO >C10-C28*	36.5	10.0	10/06/2021	ND	218	109	200	8.17	
EXT DRO >C28-C36	<10.0	10.0	10/06/2021	ND					

Surrogate: 1-Chlorooctane 88.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 76.0 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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 client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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: 10/05/2021  
 Reported: 10/07/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 10/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 10' (H212768-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1120	16.0	10/06/2021	ND	432	108	400	0.00		

**Sample ID: SP 2 @ 12' (H212768-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	10/06/2021	ND	432	108	400	0.00	

**Sample ID: SP 2 @ 14' (H212768-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	752	16.0	10/06/2021	ND	432	108	400	0.00		

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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---

### Notes and Definitions

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

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager





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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> <u>Heene</u> <b>Project Manager:</b> <u>Grace Baker</u> <b>Address:</b> <b>City:</b> <u>Hobbs</u> <b>State:</b> <u>NM</u> <b>Zip:</b> <u>88240</u> <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> <b>Project Owner:</b> <b>Project Name:</b> <b>Project Location:</b> <u>JB Phillips #8</u> <b>Sampler Name:</b> <u>Joe Phillips</u>		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>	
<b>Lab I.D.</b> <u>H2127168</u> <b>Sample I.D.</b> <b>Relinquished By:</b> <u>Joe Phillips</u> <b>Date:</b> <u>10-5-21</u> <b>Received By:</b> <u>Joe Phillips</u> <b>Date:</b> <u>10-5-21</u> <b>Relinquished By:</b> <u>Joe Phillips</u> <b>Date:</b> <u>10-5-21</u> <b>Received By:</b> <u>Joe Phillips</u> <b>Date:</b> <u>10-5-21</u>		<b>PLEASE NOTE: Liability and Damages.</b> 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 causes or otherwise.			
<b>FOR LAB USE ONLY</b> <b>1 SPT @ 14'</b> <b>2 SPT @ 16'</b> <b>3 SPT @ 18'</b> <b>4 SPT @ 18'</b> <b>5 SPT @ 14'</b>		<b>(G) RAB OR (C) OMP.</b> <b># CONTAINERS</b> <b>GROUNDWATER</b> <b>WASTEWATER</b> <b>SOIL</b> <b>OIL</b> <b>SLUDGE</b> <b>OTHER:</b> <b>ACID/BASE:</b> <b>ICEY COOL</b> <b>OTHER:</b>			
<b>MATRIX</b> <b>DATE</b> <b>TIME</b> <b>10/4 9:46</b> <b>10/4 9:48</b> <b>10/4 10:40</b> <b>10/4 10:42</b> <b>10/4 10:42</b>		<b>SAMPLING</b> <b>EXT TPH</b> <b>BTEX</b>			
<b>Delivered By: (Circle One)</b> <u>54</u> <b>Observed Temp. °C</b> <u>54</u> <b>Sample Condition</b> <b>Sampler - UPS - Bus - Other:</b> <b>Corrected Temp. °C</b> <u>4.9</u> <b>Cool Intact</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <b>CHECKED BY:</b> <u>JD</u> <b>(Initials)</b> <b>Turnaround Time:</b> <u>Standard</u> <b>Bacteria (only) Sample Condition</b> <b>Thermometer ID #113</b> <b>Cool Intact</b> <b>Correction Factor None -0.5°C</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Observed Temp. °C</b> <b>Corrected Temp. °C</b>		<b>REMARKS:</b> <u>Joe Phillips 130 @ Gmail.com</u> <b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>All Results are emailed. Please provide Email address:</b> <b>Urgent:</b> <u>Joe Phillips 130 @ Gmail.com</u>			

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



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

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October 22, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: J R PHILLIPS #8

Enclosed are the results of analyses for samples received by the laboratory on 10/19/21 16:40.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/19/2021	Sampling Date:	10/19/2021
Reported:	10/22/2021	Sampling Type:	Soil
Project Name:	J R PHILLIPS #8	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MONUMENT, NM		

**Sample ID: SP 1 @ 18' (H212940-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1500	16.0	10/21/2021	ND	416	104	400	3.92	

**Sample ID: SP 1 @ 20' (H212940-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/21/2021	ND	416	104	400	3.92	

**Sample ID: SP 2 @ 16'; (H212940-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	10/21/2021	ND	416	104	400	3.92	

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager





---

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

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Cardinal Laboratories

\*=Accredited Analyte

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

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Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> <u>Hooper Bruce Baker</u> <b>Project Manager:</b> <u>Bruce Baker</u> <b>Address:</b> <b>City:</b> <u>Hobbs</u> <b>State:</b> <u>NM</u> <b>Zip:</b> <u>88240</u> <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> <b>Project Owner:</b> <b>Project Name:</b> <b>Project Location:</b> <u>JS Phillips #8</u> <b>Sampler Name:</b> <u>Joe Casady</u>		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>	
<b>FOR LAB USE ONLY</b> <b>Lab I.D.</b> <u>#212940</u> <b>Sample I.D.</b> <u>SP1018</u> <u>SP1020</u> <u>SP2016</u>		<b>(G)RAB OR (C)OMP.</b> <b># CONTAINERS</b> <b>MATRIX</b> GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:	<b>PRESERV.</b> ACID/BASE: ICE/ COOL OTHER:	<b>SAMPLING</b> <b>DATE</b> <b>TIME</b>	<b>Analysis Results Table</b>
<b>PLEASE NOTE:</b> 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 analysis. 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 rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		<b>Relinquished By:</b> <u>Joe Casady</u> <b>Date:</b> <u>10-19</u> <b>Time:</b> <u>16:40</u> <b>Date:</b> <u>10-19</u> <b>Time:</b> <u>16:40</u>	<b>Received By:</b> <u>Lawrence Keene</u> <b>Date:</b> <u>10-19</u> <b>Time:</b> <u>16:40</u>	<b>Turnaround Time:</b> <u>Standard</u> <b>Thermometer ID #13</b> <b>Correction Factor</b> <u>-0.5°C</u>	<b>Remarks:</b> <b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>All Results are emailed. Please provide Email address:</b>
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other:		<b>Observed Temp. °C</b> <u>6.7</u> <b>Corrected Temp. °C</b> <u>6.2</u>	<b>Sample Condition</b> Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>CHECKED BY:</b> (Initials) <u>JS</u>	<b>Bacteria (only)</b> <input checked="" type="checkbox"/> <b>Sample Condition</b> Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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



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

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December 01, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: J R PHILLIPS #8

Enclosed are the results of analyses for samples received by the laboratory on 11/30/21 16:45.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received:	11/30/2021	Sampling Date:	11/30/2021
Reported:	12/01/2021	Sampling Type:	Soil
Project Name:	J R PHILLIPS #8	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MONUMENT, NM		

**Sample ID: H 1 (H213419-01)**

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	12/01/2021	ND	2.05	102	2.00	8.25	
Toluene*	<0.050	0.050	12/01/2021	ND	2.03	101	2.00	11.0	
Ethylbenzene*	<0.050	0.050	12/01/2021	ND	1.99	99.7	2.00	11.6	
Total Xylenes*	<0.150	0.150	12/01/2021	ND	6.02	100	6.00	10.5	
Total BTX	<0.300	0.300	12/01/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 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	12/01/2021	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	12/01/2021	ND	200	99.8	200	5.26	
DRO >C10-C28*	<10.0	10.0	12/01/2021	ND	205	103	200	3.62	
EXT DRO >C28-C36	<10.0	10.0	12/01/2021	ND					

Surrogate: 1-Chlorooctane 85.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 83.8 % 38.9-142

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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: 11/30/2021  
 Reported: 12/01/2021  
 Project Name: J R PHILLIPS #8  
 Project Number: NONE GIVEN  
 Project Location: MONUMENT, NM

Sampling Date: 11/30/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: H 2 (H213419-02)**

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	12/01/2021	ND	2.05	102	2.00	8.25	
Toluene*	<0.050	0.050	12/01/2021	ND	2.03	101	2.00	11.0	
Ethylbenzene*	<0.050	0.050	12/01/2021	ND	1.99	99.7	2.00	11.6	
Total Xylenes*	<0.150	0.150	12/01/2021	ND	6.02	100	6.00	10.5	
Total BTX	<0.300	0.300	12/01/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/01/2021	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	12/01/2021	ND	200	99.8	200	5.26	
DRO >C10-C28*	<10.0	10.0	12/01/2021	ND	205	103	200	3.62	
EXT DRO >C28-C36	<10.0	10.0	12/01/2021	ND					

Surrogate: 1-Chlorooctane 90.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 88.2 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

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Celey D. Keene, Lab Director/Quality Manager





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 64643

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 64643
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	1/12/2022