



303 Veterans Airpark Lane Midland, TX 79705

## **Remediation Plan**

September 28, 2020

Re: Turner Battery Trunk Line  
Case # NRM2019643192

### **Background:**

On 6/25/2020 a release occurred due to a failure on a trunk line resulting in the loss of fluid. The release (GPS: 32.463417, -103.152203) is located north of Eunice, New Mexico in unit letter K section 22 township 21S range 37E. A groundwater survey was conducted utilizing NMOSE and USGS wells of record. The nearest well of record suggest the groundwater depth below the release to be 53 feet.

Beginning on 6/30/2020 through 8/18/2020 vertical delineation was conducted utilizing a backhoe, track-hoe, and a soil boring rig. There were 4 delineation points in which samples were collected in regular intervals to various depths ranging from 14 to 35 feet. All samples collected were field titrated for chlorides and representative samples were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. All verticals were delineated to table one standards for releases less than or equal to 50 feet to groundwater.

### **Remediation Plan:**

Apache Corporation proposes that the release area be excavated to a depth of 4 feet. Final 5 point wall composite samples will be collected not exceeding 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Once laboratory results for the walls are below table one standards for releases less than or equal to 50 feet to groundwater a 20 mil reinforced liner will be installed at a depth of 4 feet. All excavated soil (5,000 yards) will be hauled to an OCD approved facility and backfilled with clean topsoil from the surrounding sand dunes as per the private surface owners request. The site will be re-seeded in accordance with the private surface landowner's guidelines. The remediation will be completed within 90 days of OCD approval date of the plan.

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

Submitted by;

*Bruce Baker*

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

Incident ID	NRM2019643192
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>53</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	NRM2019643192
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: 9/28/2020  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

Received by: Cristina Eads Date: 01/15/2021

Incident ID	NRM2019643192
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: 9/28/2020  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

Received by: Cristina Eads Date: 01/15/2021

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

Signature: Cristina Eads Date: 01/15/2021





Show search results for 32.463...

Apache Ln

Apache Ln

Apache Ln

Apache Ln


1:4513





# 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
	CP 00881		4	4	22	21S	37E	674402	3592824* 
Driller License:	571	Driller Company:				"GLASSPOOLE, GEORGE ""BILL"" W.E "			
Driller Name:	GLASSPOOLE, GEORGE W.								
Drill Start Date:	09/04/1999	Drill Finish Date:				09/07/1999		Plug Date:	
Log File Date:	09/10/1999	PCW Rcv Date:						Source:	Shallow
Pump Type:		Pipe Discharge Size:						Estimated Yield:	80 GPM
Casing Size:	5.50	Depth Well:				95 feet		Depth Water:	53 feet
Water Bearing Stratifications:					Top	Bottom	Description		
					53	95	Sandstone/Gravel/Conglomerate		
Casing Perforations:					Top	Bottom			
					75	95			

\*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.


9/25/20 11:12 AM

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
	CP 00252 POD1	4	2	4	22	21S	37E	674493	3593125* 
Driller License:		Driller Company:							
Driller Name:									
Drill Start Date:		Drill Finish Date:				03/17/1949		Plug Date:	
Log File Date:		PCW Rcv Date:				Source:			
Pump Type:		Pipe Discharge Size:						Estimated Yield:	100 GPM
Casing Size:		Depth Well:				106 feet		Depth Water:	78 feet

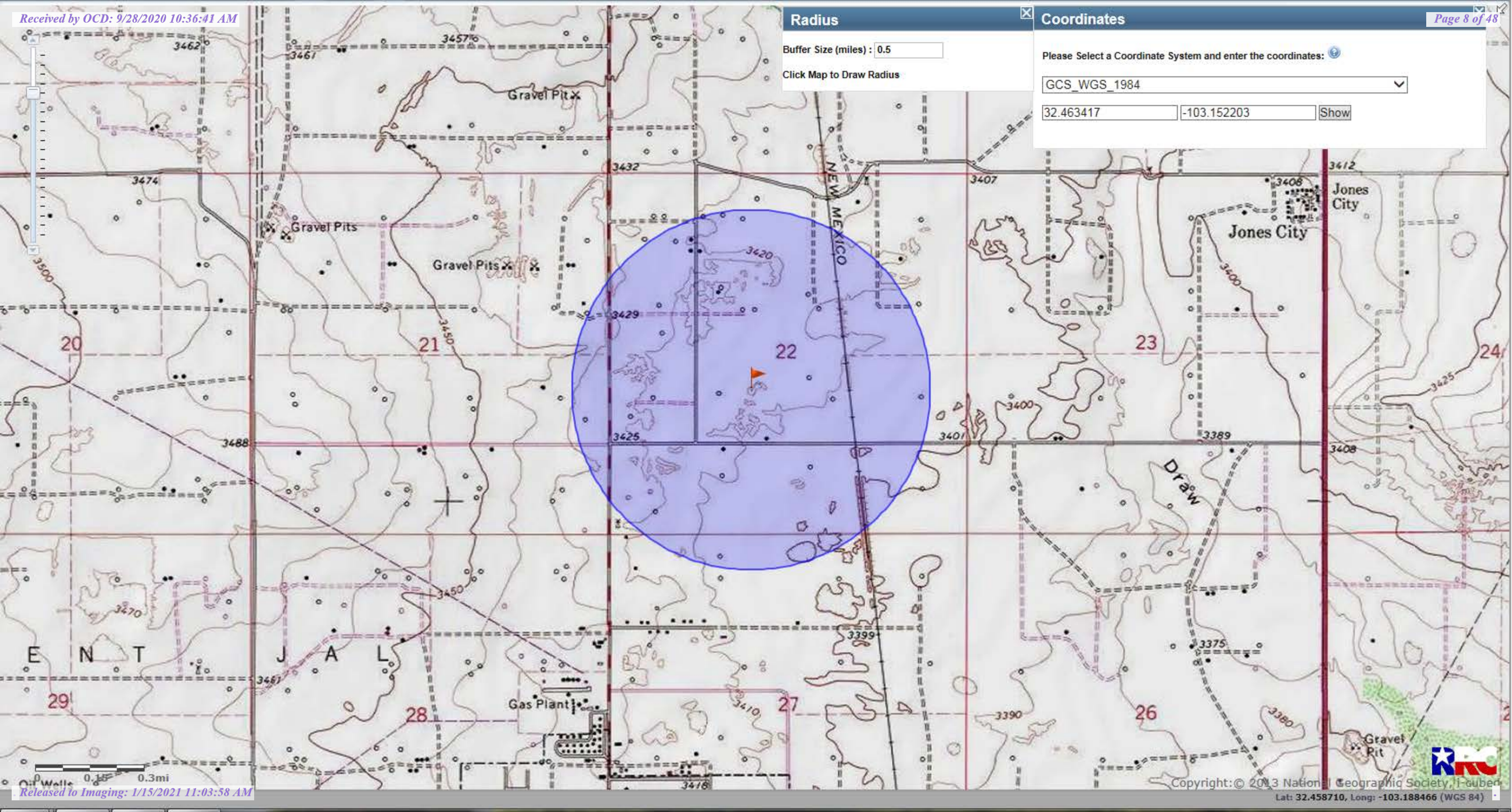
\*UTM location was derived from PLSS - see Help

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.

9/28/20 7:34 AM

POINT OF DIVERSION SUMMARY





**Radius**

Buffer Size (miles) :

Click Map to Draw Radius

**Coordinates**

Please Select a Coordinate System and enter the coordinates: ?





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Google earth



## Delineation Samples

Sample Date	Sample ID	Depth	Chloride Field	Chloride Lab	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
6/30/2020	SP 1	0'	11,396	30800	<0.050	<0.050	0.107	0.407	0.514	<10.0	519	141	32.463426, -103.152331
6/30/2020		2'	5,098	4480	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
6/30/2020		4'	4,040										
6/30/2020		6'	4,130										
6/30/2020		8'	3711	4160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	16.5	<10.0	
6/30/2020		10'	3562										
6/30/2020		12'	3211	4000	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
6/30/2020		14'	2279	2880	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
7/21/2020		16'	1365	1280									
7/21/2020		18'	1025										
7/21/2020		20'	2391	2800									
7/21/2020		22'	1,469	1440									
8/18/2020		25'	288	160.0									
8/18/2020		30'	176	96.0									
6/30/2020	SP 2	0'	4245	6000	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4630644, -103.1525254
6/30/2020		2'	2062										
6/30/2020		4'	1832	1440	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
6/30/2020		6'	1079										
6/30/2020		8'	836	416	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
6/30/2020		10'	899										
6/30/2020		12'	898	704	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
6/30/2020		14'	235	288	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
6/30/2020	SP 3	0'	5603	7200	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4630421, -103.1520543
6/30/2020		2'	2751										
6/30/2020		4'	1727	1650	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
6/30/2020		6'	1247										
6/30/2020		8'	1396	1150	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
6/30/2020		10'	1374										
6/30/2020		12'	1910	2000	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
6/30/2020		14'	1234	1230									
6/30/2020		15'	605	624	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
7/21/2020		16'	292	208									



7/21/2020	SP 4	0'	16790	11000	<0.050	<0.050	<0.050	<0.150	<0.300	<50.0	9350	1950	32.463394, - 103.152130
7/21/2020		2'	3932										
7/21/2020		4'	4058	4800	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
7/21/2020		6'	3174										
7/21/2020		8'	3179	3680									
7/21/2020		10'	3430										
7/21/2020		12'	2211	2480									
7/21/2020		14'	1864										
7/21/2020		16'	1929	1440									
7/21/2020		18'	1247										
7/21/2020		19'	591	896									
8/18/2020		20'	496	464									
8/18/2020		25'	468	224									
8/18/2020		30'	299	336									
8/18/2020		35'	176	240									



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

July 07, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: TURNER 1 ARGO

Enclosed are the results of analyses for samples received by the laboratory on 06/30/20 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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 style with a large, stylized 'C' and 'K'.

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:	06/30/2020	Sampling Date:	06/30/2020
Reported:	07/07/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 1 @ SURFACE (H001710-01)**

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	07/01/2020	ND	1.97	98.5	2.00	2.41	
Toluene*	<0.050	0.050	07/01/2020	ND	1.98	98.9	2.00	2.46	
Ethylbenzene*	<b>0.107</b>	0.050	07/01/2020	ND	2.00	100	2.00	2.43	
<b>Total Xylenes*</b>	<b>0.407</b>	0.150	07/01/2020	ND	5.80	96.7	6.00	2.33	
<b>Total BTX</b>	<b>0.514</b>	0.300	07/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.3-129

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>30800</b>	16.0	07/01/2020	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	07/01/2020	ND	223	112	200	0.608	
<b>DRO &gt;C10-C28*</b>	<b>519</b>	10.0	07/01/2020	ND	237	118	200	0.342	
<b>EXT DRO &gt;C28-C36</b>	<b>141</b>	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 87.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 113 % 42.2-156

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: 06/30/2020  
 Reported: 07/07/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 06/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 4' (H001710-02)**

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	07/01/2020	ND	1.97	98.5	2.00	2.41	
Toluene*	<0.050	0.050	07/01/2020	ND	1.98	98.9	2.00	2.46	
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	2.00	100	2.00	2.43	
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.80	96.7	6.00	2.33	
Total BTEx	<0.300	0.300	07/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4480	16.0	07/01/2020	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	07/01/2020	ND	223	112	200	0.608	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	237	118	200	0.342	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 86.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.9 % 42.2-156

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: 06/30/2020  
 Reported: 07/07/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 06/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 8' (H001710-03)**

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	07/01/2020	ND	1.97	98.5	2.00	2.41	
Toluene*	<0.050	0.050	07/01/2020	ND	1.98	98.9	2.00	2.46	
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	2.00	100	2.00	2.43	
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.80	96.7	6.00	2.33	
Total BTEx	<0.300	0.300	07/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4160	16.0	07/01/2020	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	07/01/2020	ND	223	112	200	0.608	
DRO >C10-C28*	16.5	10.0	07/01/2020	ND	237	118	200	0.342	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 90.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.2 % 42.2-156

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: 06/30/2020  
 Reported: 07/07/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 06/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 12' (H001710-04)**

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	07/01/2020	ND	1.97	98.5	2.00	2.41	
Toluene*	<0.050	0.050	07/01/2020	ND	1.98	98.9	2.00	2.46	
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	2.00	100	2.00	2.43	
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.80	96.7	6.00	2.33	
Total BTX	<0.300	0.300	07/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	07/01/2020	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	07/01/2020	ND	181	90.7	200	1.02	QM-07, QR-03
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 82.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.0 % 42.2-156

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: 06/30/2020  
 Reported: 07/07/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 06/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 14' (H001710-05)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59	
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60	
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86	
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80	
Total BTX	<0.300	0.300	07/01/2020	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2880	16.0	07/01/2020	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	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 84.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.1 % 42.2-156

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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: 06/30/2020  
 Reported: 07/07/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 06/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ SURFACE (H001710-06)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59		
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60		
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86		
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80		
Total BTX	<0.300	0.300	07/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	07/01/2020	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	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 83.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.7 % 42.2-156

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: 06/30/2020  
 Reported: 07/07/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 06/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 4' (H001710-07)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59		
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60		
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86		
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80		
Total BTX	<0.300	0.300	07/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1440	16.0	07/01/2020	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	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 84.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.9 % 42.2-156

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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:	06/30/2020	Sampling Date:	06/30/2020
Reported:	07/07/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 2 @ 8' (H001710-08)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/01/2020	ND	1.89	94.3	2.00	4.59		
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60		
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86		
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80		
Total BTX	<0.300	0.300	07/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	07/01/2020	ND	432	108	400	3.64	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 85.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.6 % 42.2-156

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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:	06/30/2020	Sampling Date:	06/30/2020
Reported:	07/07/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 2 @ 12' (H001710-09)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59	
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60	
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86	
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80	
Total BTX	<0.300	0.300	07/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	07/01/2020	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 78.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.7 % 42.2-156

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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: 06/30/2020  
 Reported: 07/07/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 06/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 14' (H001710-10)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59	
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60	
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86	
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80	
Total BTX	<0.300	0.300	07/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	07/01/2020	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 80.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 82.7 % 42.2-156

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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:	06/30/2020	Sampling Date:	06/30/2020
Reported:	07/07/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 3 @ SURFACE (H001710-11)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59		
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60		
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86		
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80		
Total BTX	<0.300	0.300	07/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7200	16.0	07/01/2020	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 72.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 74.7 % 42.2-156

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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:	06/30/2020	Sampling Date:	06/30/2020
Reported:	07/07/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 3 @ 4' (H001710-12)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59	
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60	
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86	
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80	
Total BTX	<0.300	0.300	07/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1650	16.0	07/01/2020	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 83.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.8 % 42.2-156

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:	06/30/2020	Sampling Date:	06/30/2020
Reported:	07/07/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 3 @ 8' (H001710-13)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59		
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60		
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86		
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80		
Total BTX	<0.300	0.300	07/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1150	16.0	07/01/2020	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 81.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.6 % 42.2-156

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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:	06/30/2020	Sampling Date:	06/30/2020
Reported:	07/07/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 3 @ 12' (H001710-14)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59	
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60	
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86	
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80	
Total BTX	<0.300	0.300	07/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2000	16.0	07/01/2020	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 79.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.3 % 42.2-156

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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:	06/30/2020	Sampling Date:	06/30/2020
Reported:	07/07/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 3 @ 14' (H001710-15)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59	
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60	
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86	
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80	
Total BTX	<0.300	0.300	07/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	07/01/2020	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/01/2020	ND	181	90.7	200	1.02	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	187	93.3	200	3.10	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 80.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.9 % 42.2-156

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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: 06/30/2020  
 Reported: 07/07/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 06/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 @ 15' (H001710-16)**

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	07/01/2020	ND	1.89	94.3	2.00	4.59	
Toluene*	<0.050	0.050	07/01/2020	ND	1.89	94.5	2.00	4.60	
Ethylbenzene*	<0.050	0.050	07/01/2020	ND	1.92	95.8	2.00	4.86	
Total Xylenes*	<0.150	0.150	07/01/2020	ND	5.57	92.8	6.00	4.80	
Total BTX	<0.300	0.300	07/01/2020	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	07/01/2020	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/01/2020	ND	178	89.2	200	0.270	
DRO >C10-C28*	<10.0	10.0	07/01/2020	ND	176	87.9	200	0.882	
EXT DRO >C28-C36	<10.0	10.0	07/01/2020	ND					

Surrogate: 1-Chlorooctane 77.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 79.7 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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

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>Cardinal Corporation</u>		P.O. #:		ANALYSIS REQUEST			
Project Manager:		Company:					
Address:		Attn:					
City:		Address:					
State:		City:					
Zip:		State:					
Phone #:		Phone #:					
Fax #:		Fax #:					
Project #:		Project Owner:					
Project Name: <u>Turner / Argo</u>		City:					
Project Location: <u>Turner / Argo</u>		State:					
Sample Name: <u>Jefferson</u>		Zip:					
FOR LAB USE ONLY		Matrix					
Lab I.D.		PRESERV.					
Sample I.D.		SAMPLING					
1 SP1 @ Surface		DATE		TIME			
2 SP1 @ 4'		6/30/20		2:23		CL	
3 SP1 @ 8'				2:35		BTex	
4 SP1 @ 12'				2:37		EXT. TPH	
5 SP1 @ 14'				2:35			
6 SP2 @ Surface				2:41			
7 SP2 @ 4'				1:02			
8 SP2 @ 8'				1:06			
9 SP2 @ 12'				1:10			
10 SP2 @ 14'				1:31			
		6/30/20		12:47			

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Relinquished By: <u>Jefferson</u>	Date: <u>6/30/20</u>	Received By: <u>Samanta Alabaz</u>	Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By: <u>Jefferson</u>	Date: <u>6/30/20</u>	Received By: <u>Samanta Alabaz</u>	All Results are emailed. Please provide Email address:	
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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>SA</u>		<input checked="" type="checkbox"/> Rush	<input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	Observed Temp. °C
FORM NO. 10-1-0004/20							Corrected Temp. °C

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

02 jo 02 eba



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <i>Apex Corporation</i>		P.O. #:		BILL TO								ANALYSIS REQUEST																							
Project Manager: <i>Bruce Baker</i>		Company:																																	
Address:		Attn:																																	
City:		Address:																																	
Phone #:		City:																																	
Project #:		State:																																	
Project Name: <i>Turner / Page</i>		Zip:																																	
Project Location: <i>Turner / Page</i>		Phone #:																																	
Sample Name: <i>Jeff Gruen</i>		Fax #:																																	
FOR LAB USE ONLY																																			
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		CL		BTex		EXT. TPH	
<i>Ad001710</i>		<i>SP3 @ Surface</i>																																	
<i>11</i>		<i>SP3 @ 4'</i>																																	
<i>12</i>		<i>SP3 @ 8'</i>																																	
<i>13</i>		<i>SP3 @ 12'</i>																																	
<i>14</i>		<i>SP3 @ 14'</i>																																	
<i>15</i>		<i>SP3 @ 15'</i>																																	
<i>16</i>		<i>SP3 @ 15'</i>																																	

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Relinquished By: <i>Jeff Gruen</i>		Date: <i>6/30/20</i>		Received By: <i>Monica Alaraz</i>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By: <i>Jeff Gruen</i>		Date: <i>6/30/20</i>		Received By: <i>Monica Alaraz</i>		All Results are emailed. Please provide Email address:			
Delivered By: (Circle One)		Observed Temp. °C		Sample Condition		CHECKED BY: (Initials)		Turnaround Time:	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Y.P.		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	
				Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No				Bacteria (only) Sample Condition	
				Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No				Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	
				Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No				Observed Temp. °C	
				Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No				Corrected Temp. °C	

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)



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

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July 24, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: TURNER 1 ARGO

Enclosed are the results of analyses for samples received by the laboratory on 07/21/20 15:33.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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:	07/21/2020	Sampling Date:	07/21/2020
Reported:	07/24/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 1 @ 16' (H001895-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1280	16.0	07/22/2020	ND	416	104	400	0.00	

**Sample ID: SP 1 @ 20' (H001895-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2800	16.0	07/22/2020	ND	416	104	400	0.00	

**Sample ID: SP 1 @ 22' (H001895-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1440	16.0	07/22/2020	ND	416	104	400	0.00	

**Sample ID: SP 3 @ 16' (H001895-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	07/22/2020	ND	416	104	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 07/21/2020  
 Reported: 07/24/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 07/21/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 4 @ SURFACE (H001895-05)**

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	07/22/2020	ND	1.94	97.2	2.00	2.22		
Toluene*	<0.050	0.050	07/22/2020	ND	1.96	97.8	2.00	2.20		
Ethylbenzene*	<0.050	0.050	07/22/2020	ND	1.95	97.7	2.00	2.30		
Total Xylenes*	<0.150	0.150	07/22/2020	ND	5.63	93.9	6.00	2.38		
Total BTX	<0.300	0.300	07/22/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	11000	16.0	07/22/2020	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	07/22/2020	ND	209	104	200	1.72	
DRO >C10-C28*	9350	50.0	07/22/2020	ND	227	114	200	6.05	
EXT DRO >C28-C36	1950	50.0	07/22/2020	ND					

Surrogate: 1-Chlorooctane 108 % 44.3-144

Surrogate: 1-Chlorooctadecane 349 % 42.2-156

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: 07/21/2020  
 Reported: 07/24/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 07/21/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 4 @ 4' (H001895-06)**

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	07/22/2020	ND	1.94	97.2	2.00	2.22	
Toluene*	<0.050	0.050	07/22/2020	ND	1.96	97.8	2.00	2.20	
Ethylbenzene*	<0.050	0.050	07/22/2020	ND	1.95	97.7	2.00	2.30	
Total Xylenes*	<0.150	0.150	07/22/2020	ND	5.63	93.9	6.00	2.38	
Total BTX	<0.300	0.300	07/22/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	07/22/2020	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	07/22/2020	ND	209	104	200	1.72	
DRO >C10-C28*	<10.0	10.0	07/22/2020	ND	227	114	200	6.05	
EXT DRO >C28-C36	<10.0	10.0	07/22/2020	ND					

Surrogate: 1-Chlorooctane 99.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 108 % 42.2-156

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: 07/21/2020  
 Reported: 07/24/2020  
 Project Name: TURNER 1 ARGO  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 07/21/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 4 @ 8' (H001895-07)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3680	16.0	07/22/2020	ND	416	104	400	0.00		

**Sample ID: SP 4 @ 12' (H001895-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	07/22/2020	ND	416	104	400	0.00	

**Sample ID: SP 4 @ 16' (H001895-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1440	16.0	07/22/2020	ND	416	104	400	0.00		

**Sample ID: SP 4 @ 19' (H001895-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	07/22/2020	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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

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

Celey D. Keene, Lab Director/Quality Manager

7 of 2 page



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Apache Corporation</u>		P.O. #:		BILL TO								ANALYSIS REQUEST									
Project Manager: <u>Bruce Baker</u>		Company:																			
Address:		Attn:																			
City:		Address:																			
Phone #:		City:																			
Project #:		State:																			
Project Name: <u>Turner / Arco</u>		Zip:																			
Project Location: <u>Turner / Arco</u>		Phone #:																			
Sample Name: <u>J. Brown</u>		Fax #:																			
FOR LAB USE ONLY																					
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING									
								GROUNDWATER													
								WASTEWATER													
								SOIL													
								OIL													
								SLUDGE													
								OTHER :													
								ACID/BASE:													
								ICE / COOL													
								OTHER :													
								DATE		TIME											
<u>HO01895</u>		<u>SP1 @ 16'</u>						<u>7/21/20</u>		<u>1005</u>				<u>CL</u>							
<u>2</u>		<u>SP2 @ 20'</u>								<u>1056</u>				<u>BTEX</u>							
<u>3</u>		<u>SP1 @ 28'</u>								<u>1135</u>				<u>EXT. TPH</u>							
<u>4</u>		<u>SP3 @ 16'</u>								<u>1003</u>											
<u>5</u>		<u>SP4 @ Surface</u>								<u>1444</u>											
<u>6</u>		<u>SP4 @ 4'</u>								<u>1446</u>											
<u>7</u>		<u>SP4 @ 8'</u>								<u>1448</u>											
<u>8</u>		<u>SP4 @ 12'</u>								<u>1450</u>											
<u>9</u>		<u>SP4 @ 16'</u>								<u>1452</u>											
<u>10</u>		<u>SP4 @ 19'</u>						<u>7/21/20</u>		<u>1454</u>											

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Relinquished By: <u>Jeff Brown</u>		Date: <u>7/21/20</u>		Received By: <u>Jawana Chabaz</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:	
Relinquished By: <u>Jeff Brown</u>		Time: <u>1533</u>		Received By: <u>Jawana Chabaz</u>		All Results are emailed. Please provide Email address:	
Time:		Date:		Time:		REMARKS:	
Delivered By: (Circle One)		Observed Temp. °C <u>40</u>		Sample Condition		CHECKED BY: (Initials) <u>JO</u>	
Cool <input type="checkbox"/> Intact <input type="checkbox"/>		Corrected Temp. °C		Cool <input type="checkbox"/> Intact <input type="checkbox"/>		Thermometer ID #13	
Sampler - UPS - Bus - Other:				Correction Factor None		Standard <input type="checkbox"/> Rush <input type="checkbox"/>	
						Bacteria (only) Sample Condition	
						Cool <input type="checkbox"/> Intact <input type="checkbox"/>	
						Observed Temp. °C	
						Corrected Temp. °C	

† 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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August 24, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: TURNER 1 ARGO

Enclosed are the results of analyses for samples received by the laboratory on 08/18/20 16:28.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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:	08/18/2020	Sampling Date:	08/18/2020
Reported:	08/24/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

**Sample ID: SP 1 @ 25' (H002159-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	08/21/2020	ND	416	104	400	0.00	

**Sample ID: SP 1 @ 30' (H002159-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	08/21/2020	ND	416	104	400	0.00	

**Sample ID: SP 4 @ 20' (H002159-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	08/21/2020	ND	416	104	400	0.00	

**Sample ID: SP 4 @ 25' (H002159-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	08/21/2020	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	08/18/2020	Sampling Date:	08/18/2020
Reported:	08/24/2020	Sampling Type:	Soil
Project Name:	TURNER 1 ARGO	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

**Sample ID: SP 4 @ 30' (H002159-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	08/21/2020	ND	416	104	400	0.00		

**Sample ID: SP 4 @ 35' (H002159-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	08/21/2020	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

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

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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", is written over a horizontal line.

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

FOKIM-000 K.S. 1 08/04/20



## Turner Flow Line Delineation 6/30/20

Red Dirt - SP1 @ Surface - 32.463426, -103.152331 -

$$10.0/30.0 = 3 = 3.80 = 11,396$$

Red Dirt

SP1 @ 2'

$$10.0/30.0 = 3 = 1.70 = 5,098$$

Red Dirt

SP1 @ 4'

$$10.2/30.1 = 2.95 = 1.37 = 4,040$$

Red Dirt

SP1 @ 6'

$$10.4/30.3 = 2.91 = 1.42 = 4,130$$

Red Dirt

SP1 @ 8'

$$10.2/30.3 = 2.97 = 1.25 = 3,711$$

Caliche

SP1 @ 10'

$$10.2/30.3 = 2.97 = 1.20 = 3,562$$

Caliche

SP1 @ 12'

$$10.3/30.0 = 2.92 = 1.10 = 3,211$$

Caliche

SP1 @ 14'

$$10.5/30.0 = 2.85 = .80 = 2,279$$

Red Dirt

SP2 @ Surface - 32.4630644, -103.1525254 -

$$10.1/30.0 = 2.97 = 1.43 = 4,245$$

Red Dirt

SP2 @ 2'

$$10.1/30.2 = 2.79 = .69 = 2,062$$

Red Dirt

SP2 @ 4'

$$10.7/30.2 = 2.82 = .65 = 1,832$$

Red Dirt

SP2 @ 6'

$$10.0/30.0 = 3 = .56 = 1,679$$

Red Dirt

SP2 @ 8'

$$10.1/30.2 = 2.99 = .28 = 836$$

Caliche

SP2 @ 10'

$$10.1/30.3 = 3 = .30 = 899$$



caliche

SP2 @ 12'

$$10.4 / 30.2 = 2.90 = .31 = 898$$

caliche

SP2 @ 13'

$$10.0 / 30.3 = 3.03 = .24 = 726$$

caliche

SP2 @ 14'

$$10.2 / 30.0 = 2.94 = .08 = 235 \checkmark$$

Geo Dnt

SP3 @ Surface - 32.4630421, -103.1520543 —

$$10.2 / 30.1 = 2.95 = 1.90 = 5,603$$

Geo Dnt

SP3 @ 2'

$$10.2 / 30.2 = 2.96 = .93 = 2,751$$

Geo Dnt

SP3 @ 4'

$$10.0 / 30.1 = 2.98 = .58 = 1,727$$

Geo Dnt

SP3 @ 6'

$$10.1 / 30.0 = 2.97 = .42 = 1,247$$

Geo Dnt

SP3 @ 8'

$$10.4 / 30.3 = 2.91 = .48 = 1,396$$

caliche

SP3 @ 10'

$$10.1 / 30.2 = 2.99 = .46 = 1,374$$

caliche

SP3 @ 12'

$$10.2 / 30.0 = 2.94 = .65 = 1,910$$

caliche

SP3 @ 14'

$$10.2 / 30.0 = 2.94 = .42 = 1,234$$

caliche

SP3 @ 15'

$$10.0 / 30.3 = 3.03 = .20 = 605$$

## Turner Flow Line Delineation

7/21/20

Caliche SP1 @ 15'

$$10.1 / 30.1 = 2.98 = .75 = 2,234$$

Caliche SP1 @ 16'

$$10.1 / 30.0 = 2.97 = .46 = 1,365$$

Caliche SP1 @ 18'

$$10.1 / 30.1 = 2.98 = .36 = 1,072$$

Caliche SP1 @ 20'

$$10.1 / 30.2 = 2.99 = .80 = 2,391$$

Caliche SP1 @ 22'

$$10.2 / 30.0 = 2.94 = .50 = 1,469$$

Caliche SP3 @ 16'

$$10.3 / 30.2 = 2.93 = .10 = 292 \checkmark$$

Red Dirt - SP4 @ Surface - 32.463394, -103.152130 -

$$10.0 / 30.1 = 3.01 = 5.58 = 16,740$$

Red Dirt SP4 @ 2'

$$10.7 / 30.3 = 2.83 = 1.39 = 3,932$$

Red Dirt SP4 @ 4'

$$10.4 / 30.2 = 2.90 = 1.40 = 4,058$$

Red Dirt SP4 @ 6'

$$10.2 / 30.0 = 2.94 = 1.08 = 3,174$$

Red Dirt SP4 @ 8'

$$10.1 / 30.3 = 3 = 1.06 = 3,179$$

Caliche SP4 @ 10'

$$10.5 / 30.1 = 2.86 = 1.20 = 3,430$$

Caliche SP4 @ 12'

$$10.2 / 30.1 = 2.95 = .75 = 2,211$$

Caliche SP4 @ 14'

$$10.2 / 30.2 = 2.96 = .63 = 1,864$$



caliche SP4 @ 16'

$$10.4/30.0 = 2.88 = .67 = 1,929$$

caliche SP4 @ 18'

$$10.1/30.0 = 2.97 = .42 = 1,247$$

caliche SP4 @ 19'

$$10.2/30.2 = 2.96 = .20 = 591$$

- Turner Flow Line Delineation 8/18/20 (Soil Bore) -

caliche SP 1 @ 25'

$$10.4/30.1 = 2.89 = .10 = 288 \checkmark$$

caliche SP 1 @ 30'

$$10.3/30.2 = 2.93 = .05 = 146 \checkmark$$

caliche SP4 @ 20'

$$10.3/30.1 = 2.92 = .17 = 496 \checkmark$$

caliche SP4 @ 25'

$$10.3/30.2 = .16 = 468 \checkmark$$

caliche SP4 @ 30'

$$10.0/30.0 = 3 = .10 = 299 \checkmark$$

caliche SP4 @ 35'

$$10.2/30.0 = 2.94 = .06 = 176 \checkmark$$

**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 10382

CONDITIONS OF APPROVAL

Operator: #1000	APACHE CORPORATION Midland, TX79705	303 Veterans Airpark Ln	OGRID: 873	Action Number: 10382	Action Type: C-141
OCD Reviewer ceads	Condition None				