



September 30, 2020

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

RE: 2RP-4766 Hummingbird Federal Com 17H

Mr. Billings,

In compliance with 19.15.29.15(B) NMAC and the agreement submitted by Apache Corporation on November 8, 2018, Apache Corporation is submitting information related to closure for the release occurring May 16, 2018. Apache is respectfully submitting the closure report based on remediation and studies occurring in 2013 that demonstrate the site meeting the requirements of the agency. Unless further information is requested by NMOCD, Apache Corporation considers this release closed.

If there are any questions, please feel free to contact me by telephone at 432-818-1654 or by e-mail at larry.baker@apachecorp.com

Sincerely,

A handwritten signature in black ink that reads "Larry Baker". The signature is written in a cursive, flowing style.

Larry Baker
Environmental Technician SR.
Apache Corporation

Attachment: Closure Report Dated December 15, 2022



303 Veterans Airpark Lane Midland, TX 79705

Closure Report

December 15, 2022

Re: Hummingbird Federal Com 17H
Case # NAB1814335949

Background:

On 5/16/2018 a release occurred due to a ½ inch ball valve on the wellhead was open which caused the bull plug to fail resulting in the loss of fluid. The release (GPS: 32.86975288, -103.8314056) is located east of Loco Hills, New Mexico in unit letter D section 1 township 17S range 31E. It is common knowledge that township 17S range 31E has no groundwater.

On 6/7/2018 vertical delineation was conducted utilizing a backhoe. Samples were collected in one foot intervals and all samples were submitted to a commercial laboratory for analysis for chloride, TPH, and BTEX. The entire release was excavated to a depth of one foot and representative wall samples were collected and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. The delineation samples were utilized as bottom samples and an additional bottom sample was collected at SP 5. All excavated material was hauled to an OCD approved facility and backfilled with clean imported soil and contoured to the surrounding area.

On 9/14/2022 OCD rejected the closure report due to depth of groundwater was not adequately determined. On 12/6/2022 a soil bore (GPS: 32.864185, -103.832000) was advanced to a depth of 116 feet and gauged for the presence of water on 12/6/2022. There was no water present in the bore hole to a depth of 116 feet below ground surface.

Apache Corporation has completed remediation to less than table one standards for releases greater than 100 feet to groundwater and respectfully request that event NAB1814335949 be closed.

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

Submitted by;

Larry Baker

Environmental Technician
larry.baker@apachecorp.com
Cell# 432-818-1654

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

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

Form C-141
Revised August 8, 2011
MAY 21 2018
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.
DISTRICT II-ARTESIA O.C.D.

Release Notification and Corrective Action

NAB1814335949

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Apache Corporation	Contact Bruce Baker
Address 2350 W Marland Street, Hobbs, NM 88240	Telephone No. (432) 631-6982
Facility Name Hummingbird Federal Com 17H	Facility Type Oil Well

Surface Owner State/Federal	Mineral Owner Federal	API No. 30-015-43482
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LOCATION OF RELEASE

Unit Letter D	Section 1	Township 17S	Range 31E	Feet from the 430'	North/South Line FNL	Feet from the 100'	East/West Line FWL	County Eddy
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Latitude 32.86975288 Longitude -103.8314056

NATURE OF RELEASE

Type of Release Oil and Produced Water	Volume of Release 6 Barrels of Oil and 4 barrels of water	Volume Recovered 4 barrels of oil and 2 barrels of water
Source of Release Well Head	Date and Hour of Occurrence 5/16/2018	Date and Hour of Discovery 5/16/2018 at 10:00 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shelly Tucker	
By Whom? Bruce Baker	Date and Hour 5/17/2018 at 9:39 am via email	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A 1/2 inch ball valve on the wellhead was open which caused the bull plug to fail resulting in the loss of fluid. The valve was closed and a vacuum truck was dispatched to pick up standing fluid.

Describe Area Affected and Cleanup Action Taken.*

The majority of the release was contained to the lease pad and the adjacent lease pad to the south. Approximately 400 square feet of pasture was affected between the two pads.

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

Signature: <i>Bruce Baker</i>	OIL CONSERVATION DIVISION	
Printed Name: Bruce Baker	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Environmental Technician SR	Approval Date: 5/22/18	Expiration Date: N/A
E-mail Address: larry.baker@apachecorp.com	Conditions of Approval: See attached	Attached: <i>2RP-47660</i>
Date: 5/21/2018	Phone: (432) 631-6982	

* Attach Additional Sheets If Necessary

Incident ID	NAB1814335949
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>None</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 not 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.

Incident ID	NAB1814335949
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: 9/30/2020
email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: Jocelyn Harimon Date: 12/15/2022

Incident ID	NAB1814335949
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Larry Baker

Title: Environmental Tech SR.

Signature: Larry Baker

Date: 12/15/2022

email: larry.baker@apachecorp.com

Telephone: 432-631-6982

OCD Only

Received by: Jocelyn Harimon

Date: 12/15/2022

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

Closure Approved by: Brittany Hall

Date: 12/15/2022

Printed Name: Brittany Hall

Title: Environmental Specialist

Soil Bore Report

[illegible]

Line Path Polygon Circle 3D path 3D polygon

Measure the distance between two points on the ground

Map Length: 0.36 Miles
Ground Length: 0.36
Heading: 184.18 degrees

☐ Mouse Navigation



Hummingbird Com 17H release

SB

Radius

Buffer Size (miles) : 0.5

Click Map to Draw Radius

Coordinates

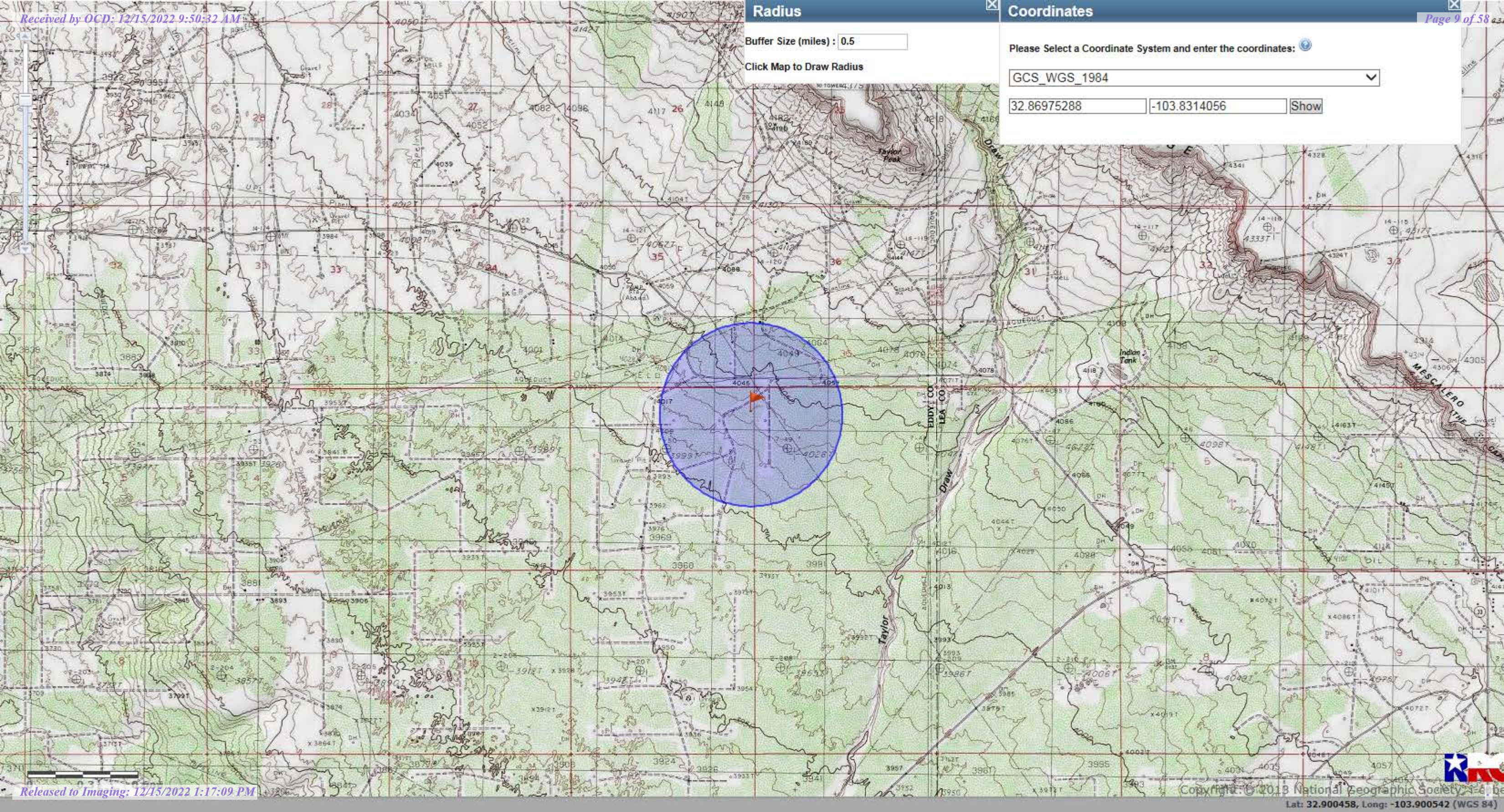
Please Select a Coordinate System and enter the coordinates:

GCS_WGS_1984

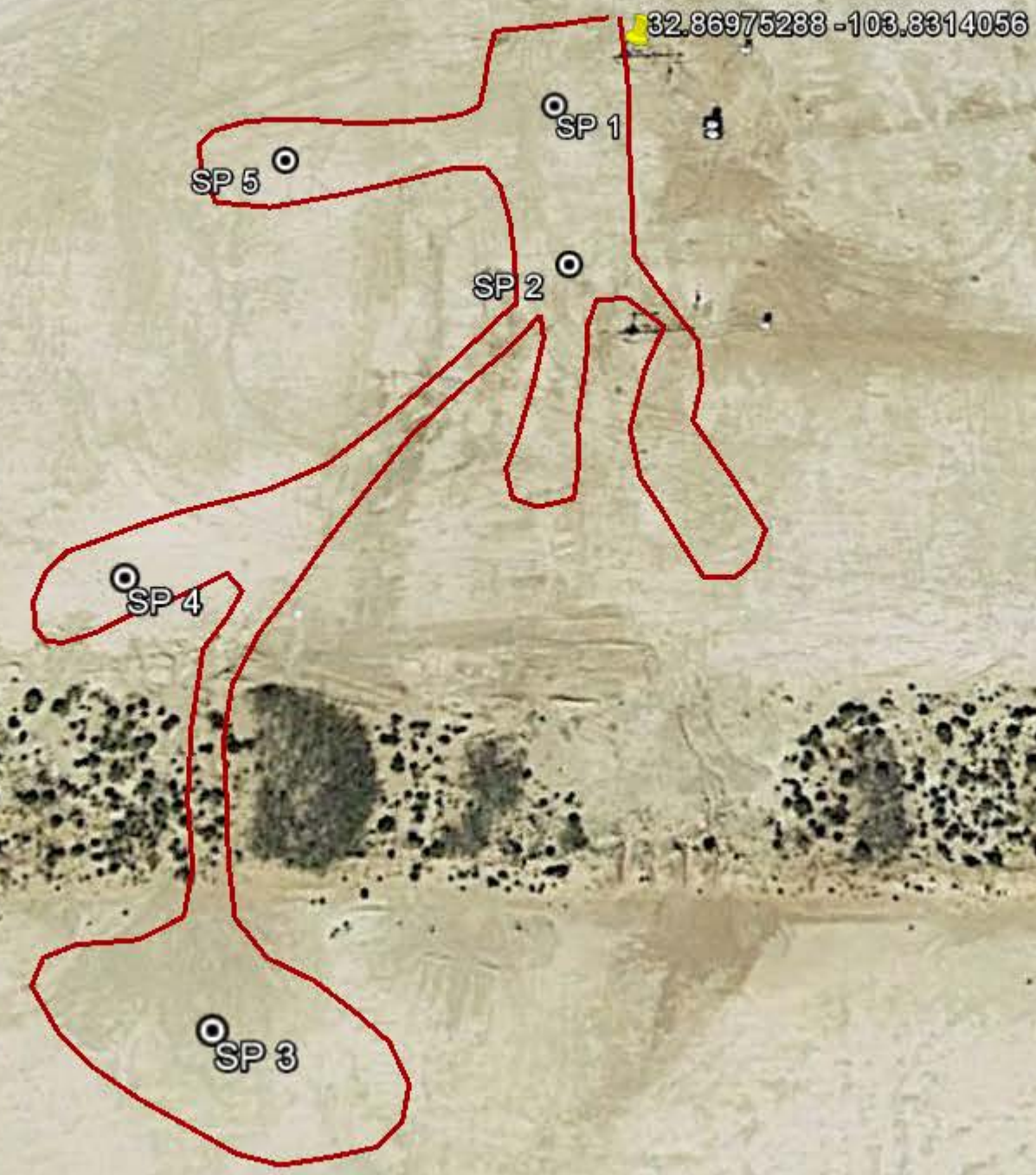
32.86975288

-103.8314056

Show



Bottom Sample Map



© 2020 Google

Google earth

Wall Samples



© 2020 Google

Google earth

Delineation Samples

Sample Date	Sample ID	Depth	Chloride Lab	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO
6/7/2018	SP 1	S	34000	<0.100	0.245	0.528	1.21	1.98	<50.0	4640	1010
6/7/2018		1'	272	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/7/2018		2'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	83.7	19
6/7/2018	SP 2	S	240	<1.00	7.06	48.7	82.3	138	1810	20800	2880
6/7/2018		1'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	31.1	<10.0
6/7/2018	SP 3	S	80.0	<0.500	3.00	19.9	34.6	57.5	629	7610	1030
6/7/2018		1'	32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	12.5	<10.0
6/7/2018	SP 4	S	10000	<0.200	0.203	4.22	10.9	15.4	507	24700	4060
6/7/2018		1'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	44.5	<10.0
6/7/2018		2'	176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0

Final Samples

Sample Date	Sample ID	Depth	Chloride Lab	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO
6/13/2018	W SP1		1780	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
7/5/2018	W SP 1		512								
6/13/2018	W SP 2		992	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/13/2018	W SP 3		1300	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
7/5/2018	W SP 3		480								
6/13/2018	W SP 4		172000	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
7/5/2018	W SP 4		768								
6/13/2018	W SP 5		112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/13/2018	W SP 6		176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/13/2018	W SP 7		80.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/13/2018	W SP 8		32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/13/2018	W SP 9		32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/13/2018	W SP 10		96.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/13/2018	W SP 11		112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/13/2018	W SP 12		976	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/13/2018	W SP 13		208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
6/13/2018	W SP 14		512	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0

6/13/2018	W SP 15		8660	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	78.6	<10.0
7/5/2018	W SP 15		128								
6/13/2018	W SP 16		1360	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	78.6	<10.0
7/5/2018	W SP 16		560								
7/11/2018	Bottom SP 5		176								



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

June 12, 2018

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: HUMMINGBIRD FEDERAL #17H

Enclosed are the results of analyses for samples received by the laboratory on 06/07/18 16:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is 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:	06/07/2018	Sampling Date:	06/07/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ SURFACE (H801564-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	06/08/2018	ND	2.01	100	2.00	3.18	
Toluene*	0.245	0.100	06/08/2018	ND	2.07	104	2.00	4.17	
Ethylbenzene*	0.528	0.100	06/08/2018	ND	2.08	104	2.00	3.65	
Total Xylenes*	1.21	0.300	06/08/2018	ND	6.08	101	6.00	3.56	
Total BTEX	1.98	0.600	06/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	34000	16.0	06/11/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<50.0	50.0	06/08/2018	ND	197	98.5	200			
DRO >C10-C28*	4640	50.0	06/08/2018	ND	199	99.7	200			
EXT DRO >C28-C36	1010	50.0	06/08/2018	ND						

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 374 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/07/2018	Sampling Date:	06/07/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 1' (H801564-02)

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	06/08/2018	ND	2.01	100	2.00	3.18		
Toluene*	<0.050	0.050	06/08/2018	ND	2.07	104	2.00	4.17		
Ethylbenzene*	<0.050	0.050	06/08/2018	ND	2.08	104	2.00	3.65		
Total Xylenes*	<0.150	0.150	06/08/2018	ND	6.08	101	6.00	3.56		
Total BTEx	<0.300	0.300	06/08/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	06/11/2018	ND	416	104	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	06/08/2018	ND	197	98.5	200		
DRO >C10-C28*	<10.0	10.0	06/08/2018	ND	199	99.7	200		
EXT DRO >C28-C36	<10.0	10.0	06/08/2018	ND					

Surrogate: 1-Chlorooctane 89.9 % 41-142

Surrogate: 1-Chlorooctadecane 86.1 % 37.6-147

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:	06/07/2018	Sampling Date:	06/07/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 2' (H801564-03)

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	06/08/2018	ND	2.01	100	2.00	3.18		
Toluene*	<0.050	0.050	06/08/2018	ND	2.07	104	2.00	4.17		
Ethylbenzene*	<0.050	0.050	06/08/2018	ND	2.08	104	2.00	3.65		
Total Xylenes*	<0.150	0.150	06/08/2018	ND	6.08	101	6.00	3.56		
Total BTEX	<0.300	0.300	06/08/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	06/11/2018	ND	416	104	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	06/08/2018	ND	197	98.5	200		
DRO >C10-C28*	<10.0	10.0	06/08/2018	ND	199	99.7	200		
EXT DRO >C28-C36	<10.0	10.0	06/08/2018	ND					

Surrogate: 1-Chlorooctane 93.3 % 41-142

Surrogate: 1-Chlorooctadecane 89.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/07/2018	Sampling Date:	06/07/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ SURFACE (H801564-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<1.00	1.00	06/08/2018	ND	2.01	100	2.00	3.18		
Toluene*	7.06	1.00	06/08/2018	ND	2.07	104	2.00	4.17		
Ethylbenzene*	48.7	1.00	06/08/2018	ND	2.08	104	2.00	3.65		
Total Xylenes*	82.3	3.00	06/08/2018	ND	6.08	101	6.00	3.56		
Total BTEX	138	6.00	06/08/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 134 % 69.8-142

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	06/11/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1810	50.0	06/08/2018	ND	197	98.5	200		
DRO >C10-C28*	20800	50.0	06/08/2018	ND	199	99.7	200		
EXT DRO >C28-C36	2880	50.0	06/08/2018	ND					

Surrogate: 1-Chlorooctane 296 % 41-142

Surrogate: 1-Chlorooctadecane 906 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/07/2018	Sampling Date:	06/07/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 1' (H801564-05)

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	06/08/2018	ND	2.01	100	2.00	3.18		
Toluene*	<0.050	0.050	06/08/2018	ND	2.07	104	2.00	4.17		
Ethylbenzene*	<0.050	0.050	06/08/2018	ND	2.08	104	2.00	3.65		
Total Xylenes*	<0.150	0.150	06/08/2018	ND	6.08	101	6.00	3.56		
Total BTEx	<0.300	0.300	06/08/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/11/2018	ND	416	104	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	06/08/2018	ND	197	98.5	200		
DRO >C10-C28*	31.1	10.0	06/08/2018	ND	199	99.7	200		
EXT DRO >C28-C36	<10.0	10.0	06/08/2018	ND					

Surrogate: 1-Chlorooctane 95.2 % 41-142

Surrogate: 1-Chlorooctadecane 94.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/07/2018	Sampling Date:	06/07/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ SURFACE (H801564-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	06/08/2018	ND	2.01	100	2.00	3.18	
Toluene*	3.00	0.500	06/08/2018	ND	2.07	104	2.00	4.17	
Ethylbenzene*	19.9	0.500	06/08/2018	ND	2.08	104	2.00	3.65	
Total Xylenes*	34.6	1.50	06/08/2018	ND	6.08	101	6.00	3.56	
Total BTEX	57.5	3.00	06/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 135 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/11/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	629	50.0	06/08/2018	ND	197	98.5	200		
DRO >C10-C28*	7610	50.0	06/08/2018	ND	199	99.7	200		
EXT DRO >C28-C36	1030	50.0	06/08/2018	ND					

Surrogate: 1-Chlorooctane 160 % 41-142

Surrogate: 1-Chlorooctadecane 382 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/07/2018	Sampling Date:	06/07/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 1' (H801564-07)

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	06/08/2018	ND	2.01	100	2.00	3.18	
Toluene*	<0.050	0.050	06/08/2018	ND	2.07	104	2.00	4.17	
Ethylbenzene*	<0.050	0.050	06/08/2018	ND	2.08	104	2.00	3.65	
Total Xylenes*	<0.150	0.150	06/08/2018	ND	6.08	101	6.00	3.56	
Total BTX	<0.300	0.300	06/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/11/2018	ND	416	104	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	06/08/2018	ND	197	98.5	200		
DRO >C10-C28*	12.5	10.0	06/08/2018	ND	199	99.7	200		
EXT DRO >C28-C36	<10.0	10.0	06/08/2018	ND					

Surrogate: 1-Chlorooctane 93.1 % 41-142

Surrogate: 1-Chlorooctadecane 91.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/07/2018	Sampling Date:	06/07/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ SURFACE (H801564-08)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	06/09/2018	ND	2.01	100	2.00	3.18	
Toluene*	0.203	0.200	06/09/2018	ND	2.07	104	2.00	4.17	
Ethylbenzene*	4.22	0.200	06/09/2018	ND	2.08	104	2.00	3.65	
Total Xylenes*	10.9	0.600	06/09/2018	ND	6.08	101	6.00	3.56	
Total BTX	15.4	1.20	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 142 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10000	16.0	06/11/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	507	100	06/08/2018	ND	197	98.5	200		
DRO >C10-C28*	24700	100	06/08/2018	ND	199	99.7	200		
EXT DRO >C28-C36	4060	100	06/08/2018	ND					

Surrogate: 1-Chlorooctane 212 % 41-142

Surrogate: 1-Chlorooctadecane 1180 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/07/2018	Sampling Date:	06/07/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 1' (H801564-09)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/09/2018	ND	2.01	100	2.00	3.18		
Toluene*	<0.050	0.050	06/09/2018	ND	2.07	104	2.00	4.17		
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	2.08	104	2.00	3.65		
Total Xylenes*	<0.150	0.150	06/09/2018	ND	6.08	101	6.00	3.56		
Total BTEx	<0.300	0.300	06/09/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	06/11/2018	ND	416	104	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	06/08/2018	ND	197	98.5	200		
DRO >C10-C28*	44.5	10.0	06/08/2018	ND	199	99.7	200		
EXT DRO >C28-C36	<10.0	10.0	06/08/2018	ND					

Surrogate: 1-Chlorooctane 98.8 % 41-142

Surrogate: 1-Chlorooctadecane 99.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/07/2018	Sampling Date:	06/07/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 2' (H801564-10)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/09/2018	ND	2.01	100	2.00	3.18		
Toluene*	<0.050	0.050	06/09/2018	ND	2.07	104	2.00	4.17		
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	2.08	104	2.00	3.65		
Total Xylenes*	<0.150	0.150	06/09/2018	ND	6.08	101	6.00	3.56		
Total BTEx	<0.300	0.300	06/09/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	06/11/2018	ND	416	104	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	06/08/2018	ND	197	98.5	200		
DRO >C10-C28*	<10.0	10.0	06/08/2018	ND	199	99.7	200		
EXT DRO >C28-C36	<10.0	10.0	06/08/2018	ND					

Surrogate: 1-Chlorooctane 96.4 % 41-142

Surrogate: 1-Chlorooctadecane 94.1 % 37.6-147

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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.
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

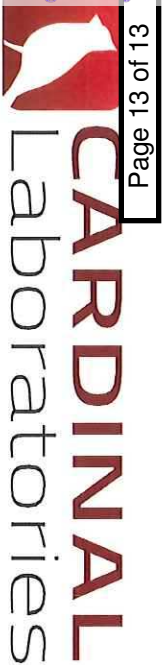
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Apache</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:																					
Project Location: <u>Hummingbird Federal 17H</u>		Phone #:																					
Sampler Name: <u>Bruce Baker</u>		Fax #:																					
FOR LAB USE ONLY																							
Lab I.D. <u>H801564</u>		Sample I.D.																					
		(G)RAB OR (C)OMP.																					
		# CONTAINERS																					
		GROUNDWATER																					
		WASTEWATER																					
		SOIL																					
		OIL																					
		SLUDGE																					
		OTHER :																					
		ACID/BASE:																					
		ICE / COOL																					
		OTHER :																					
		DATE																					
		TIME																					
1 SP 1 Surface		6-7-18 11:15		✓										C1 -									
2 SP 1 @ 1'		6-7-18 11:20		✓										Ext. TPH									
3 SP 1 @ 2'		6-7-18 11:40		✓										BTEX									
4 SP 2 Surface		6-7-18 11:45		✓																			
5 SP 2 @ 1'		6-7-18 11:51		✓																			
6 SP 3 Surface		6-7-18 12:10		✓																			
7 SP 3 @ 1'		6-7-18 12:17		✓																			
8 SP 4 Surface		6-7-18 12:30		✓																			
9 SP 4 @ 1'		6-7-18 12:35		✓																			
10 SP 4 @ 2'		6-7-18 12:50		✓																			

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Relinquished By: <u>Bruce Baker</u>	Date: <u>6-7-18</u>	Received By: <u>Adi Jensen</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) <u>#75</u>	Time: <u>4:10pm</u>	Sample Condition: <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Cool <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: <u>[Signature]</u>	
Sampler - UPS - Bus - Other: <u>4.80c/4.75c</u>			REMARKS: <u>Email Results</u>	



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

June 18, 2018

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: HUMMINGBIRD FEDERAL #17H

Enclosed are the results of analyses for samples received by the laboratory on 06/13/18 16:07.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is 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:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 1 (H801613-01)

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2018	ND	2.02	101	2.00	3.49	
Toluene*	<0.050	0.050	06/15/2018	ND	2.08	104	2.00	4.33	
Ethylbenzene*	<0.050	0.050	06/15/2018	ND	2.09	105	2.00	4.35	
Total Xylenes*	<0.150	0.150	06/15/2018	ND	6.12	102	6.00	4.18	
Total BTEX	<0.300	0.300	06/15/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 69.8-142

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1780	16.0	06/18/2018	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	06/15/2018	ND	215	107	200	3.15	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	230	115	200	4.62	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 71.6 % 41-142

Surrogate: 1-Chlorooctadecane 78.7 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 2 (H801613-02)

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	06/15/2018	ND	2.02	101	2.00	3.49	
Toluene*	<0.050	0.050	06/15/2018	ND	2.08	104	2.00	4.33	
Ethylbenzene*	<0.050	0.050	06/15/2018	ND	2.09	105	2.00	4.35	
Total Xylenes*	<0.150	0.150	06/15/2018	ND	6.12	102	6.00	4.18	
Total BTEx	<0.300	0.300	06/15/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	06/18/2018	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	06/15/2018	ND	215	107	200	3.15	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	230	115	200	4.62	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 83.5 % 41-142

Surrogate: 1-Chlorooctadecane 86.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 3 (H801613-03)

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	06/15/2018	ND	2.02	101	2.00	3.49	
Toluene*	<0.050	0.050	06/15/2018	ND	2.08	104	2.00	4.33	
Ethylbenzene*	<0.050	0.050	06/15/2018	ND	2.09	105	2.00	4.35	
Total Xylenes*	<0.150	0.150	06/15/2018	ND	6.12	102	6.00	4.18	
Total BTEx	<0.300	0.300	06/15/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1300	16.0	06/18/2018	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	06/15/2018	ND	215	107	200	3.15	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	230	115	200	4.62	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 88.7 % 41-142

Surrogate: 1-Chlorooctadecane 95.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 4 (H801613-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/15/2018	ND	2.02	101	2.00	3.49		
Toluene*	<0.050	0.050	06/15/2018	ND	2.08	104	2.00	4.33		
Ethylbenzene*	<0.050	0.050	06/15/2018	ND	2.09	105	2.00	4.35		
Total Xylenes*	<0.150	0.150	06/15/2018	ND	6.12	102	6.00	4.18		
Total BTEx	<0.300	0.300	06/15/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	17200	16.0	06/18/2018	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	06/15/2018	ND	215	107	200	3.15	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	230	115	200	4.62	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 84.1 % 41-142

Surrogate: 1-Chlorooctadecane 88.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 5 (H801613-05)

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	06/15/2018	ND	2.02	101	2.00	3.49		
Toluene*	<0.050	0.050	06/15/2018	ND	2.08	104	2.00	4.33		
Ethylbenzene*	<0.050	0.050	06/15/2018	ND	2.09	105	2.00	4.35		
Total Xylenes*	<0.150	0.150	06/15/2018	ND	6.12	102	6.00	4.18		
Total BTEx	<0.300	0.300	06/15/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	06/18/2018	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	06/15/2018	ND	215	107	200	3.15	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	230	115	200	4.62	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 85.7 % 41-142

Surrogate: 1-Chlorooctadecane 89.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 6 (H801613-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2018	ND	2.02	101	2.00	3.49	
Toluene*	<0.050	0.050	06/15/2018	ND	2.08	104	2.00	4.33	
Ethylbenzene*	<0.050	0.050	06/15/2018	ND	2.09	105	2.00	4.35	
Total Xylenes*	<0.150	0.150	06/15/2018	ND	6.12	102	6.00	4.18	
Total BTEx	<0.300	0.300	06/15/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	06/18/2018	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	06/15/2018	ND	215	107	200	3.15	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	230	115	200	4.62	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 85.7 % 41-142

Surrogate: 1-Chlorooctadecane 89.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 7 (H801613-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2018	ND	2.02	101	2.00	3.49	
Toluene*	<0.050	0.050	06/15/2018	ND	2.08	104	2.00	4.33	
Ethylbenzene*	<0.050	0.050	06/15/2018	ND	2.09	105	2.00	4.35	
Total Xylenes*	<0.150	0.150	06/15/2018	ND	6.12	102	6.00	4.18	
Total BTEx	<0.300	0.300	06/15/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/18/2018	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	06/15/2018	ND	215	107	200	3.15	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	230	115	200	4.62	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 81.4 % 41-142

Surrogate: 1-Chlorooctadecane 85.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 8 (H801613-08)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2018	ND	2.02	101	2.00	3.49	
Toluene*	<0.050	0.050	06/15/2018	ND	2.08	104	2.00	4.33	
Ethylbenzene*	<0.050	0.050	06/15/2018	ND	2.09	105	2.00	4.35	
Total Xylenes*	<0.150	0.150	06/15/2018	ND	6.12	102	6.00	4.18	
Total BTEx	<0.300	0.300	06/15/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/18/2018	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	06/15/2018	ND	215	107	200	3.15	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	230	115	200	4.62	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 94.2 % 41-142

Surrogate: 1-Chlorooctadecane 97.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 9 (H801613-09)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/15/2018	ND	2.02	101	2.00	3.49		
Toluene*	<0.050	0.050	06/15/2018	ND	2.08	104	2.00	4.33		
Ethylbenzene*	<0.050	0.050	06/15/2018	ND	2.09	105	2.00	4.35		
Total Xylenes*	<0.150	0.150	06/15/2018	ND	6.12	102	6.00	4.18		
Total BTEx	<0.300	0.300	06/15/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/18/2018	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	06/15/2018	ND	215	107	200	3.15	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	230	115	200	4.62	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 96.3 % 41-142

Surrogate: 1-Chlorooctadecane 105 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 10 (H801613-10)

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	06/15/2018	ND	2.02	101	2.00	3.49	
Toluene*	<0.050	0.050	06/15/2018	ND	2.08	104	2.00	4.33	
Ethylbenzene*	<0.050	0.050	06/15/2018	ND	2.09	105	2.00	4.35	
Total Xylenes*	<0.150	0.150	06/15/2018	ND	6.12	102	6.00	4.18	
Total BTX	<0.300	0.300	06/15/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.8-142

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	06/18/2018	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	06/15/2018	ND	215	107	200	3.15	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	230	115	200	4.62	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 89.7 % 41-142

Surrogate: 1-Chlorooctadecane 91.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 11 (H801613-11)

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	06/16/2018	ND	1.77	88.6	2.00	1.67	
Toluene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.33	
Ethylbenzene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.74	
Total Xylenes*	<0.150	0.150	06/16/2018	ND	5.40	90.0	6.00	1.31	
Total BTX	<0.300	0.300	06/16/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	06/18/2018	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	06/15/2018	ND	215	108	200	7.87	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	224	112	200	8.29	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 81.5 % 41-142

Surrogate: 1-Chlorooctadecane 85.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 12 (H801613-12)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/16/2018	ND	1.77	88.6	2.00	1.67		
Toluene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.33		
Ethylbenzene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.74		
Total Xylenes*	<0.150	0.150	06/16/2018	ND	5.40	90.0	6.00	1.31		
Total BTEx	<0.300	0.300	06/16/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	976	16.0	06/18/2018	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	06/15/2018	ND	215	108	200	7.87	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	224	112	200	8.29	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 76.2 % 41-142

Surrogate: 1-Chlorooctadecane 77.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 13 (H801613-13)

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	06/16/2018	ND	1.77	88.6	2.00	1.67	
Toluene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.33	
Ethylbenzene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.74	
Total Xylenes*	<0.150	0.150	06/16/2018	ND	5.40	90.0	6.00	1.31	
Total BTX	<0.300	0.300	06/16/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	06/18/2018	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	06/15/2018	ND	215	108	200	7.87	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	224	112	200	8.29	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 87.4 % 41-142

Surrogate: 1-Chlorooctadecane 91.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 14 (H801613-14)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/16/2018	ND	1.77	88.6	2.00	1.67		
Toluene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.33		
Ethylbenzene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.74		
Total Xylenes*	<0.150	0.150	06/16/2018	ND	5.40	90.0	6.00	1.31		
Total BTEx	<0.300	0.300	06/16/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	512	16.0	06/18/2018	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	06/15/2018	ND	215	108	200	7.87	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	224	112	200	8.29	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 83.5 % 41-142

Surrogate: 1-Chlorooctadecane 85.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 15 (H801613-15)

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	06/16/2018	ND	1.77	88.6	2.00	1.67	
Toluene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.33	
Ethylbenzene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.74	
Total Xylenes*	<0.150	0.150	06/16/2018	ND	5.40	90.0	6.00	1.31	
Total BTX	<0.300	0.300	06/16/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8660	16.0	06/18/2018	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	06/15/2018	ND	215	108	200	7.87	
DRO >C10-C28*	78.6	10.0	06/15/2018	ND	224	112	200	8.29	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 69.6 % 41-142

Surrogate: 1-Chlorooctadecane 79.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/13/2018	Sampling Date:	06/13/2018
Reported:	06/18/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: W SP 16 (H801613-16)

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	06/16/2018	ND	1.77	88.6	2.00	1.67	
Toluene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.33	
Ethylbenzene*	<0.050	0.050	06/16/2018	ND	1.76	87.8	2.00	1.74	
Total Xylenes*	<0.150	0.150	06/16/2018	ND	5.40	90.0	6.00	1.31	
Total BTX	<0.300	0.300	06/16/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1360	16.0	06/18/2018	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	06/15/2018	ND	215	108	200	7.87	
DRO >C10-C28*	<10.0	10.0	06/15/2018	ND	224	112	200	8.29	
EXT DRO >C28-C36	<10.0	10.0	06/15/2018	ND					

Surrogate: 1-Chlorooctane 60.1 % 41-142

Surrogate: 1-Chlorooctadecane 62.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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

Notes and Definitions

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

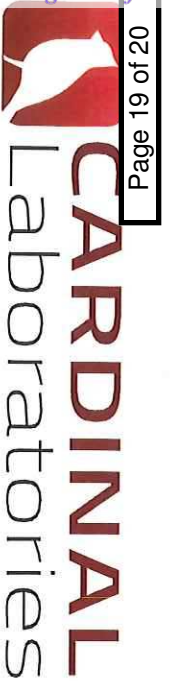
Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

①

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

Company Name: <u>Apache</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:																	
Fax #: _____		City:																	
Project #: _____		State:																	
Project Name: <u>Hummingbird Feed 17H</u>		Zip:																	
Project Location:		Phone #:																	
Sampler Name: <u>Bruce Baker</u>		Fax #:																	
FOR LAB USE ONLY		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME			
Lab I.D. <u>H001613</u>		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE			
1		WSP 1		G 1		✓		✓		✓		✓		✓		✓			
2		WSP 2		G 1		✓		✓		✓		✓		✓		✓			
3		WSP 3		G 1		✓		✓		✓		✓		✓		✓			
4		WSP 4		G 1		✓		✓		✓		✓		✓		✓			
5		WSP 5		G 1		✓		✓		✓		✓		✓		✓			
6		WSP 6		G 1		✓		✓		✓		✓		✓		✓			
7		WSP 7		G 1		✓		✓		✓		✓		✓		✓			
8		WSP 8		G 1		✓		✓		✓		✓		✓		✓			
9		WSP 9		G 1		✓		✓		✓		✓		✓		✓			
10		WSP 10		G 1		✓		✓		✓		✓		✓		✓			
11		WSP 11		G 1		✓		✓		✓		✓		✓		✓			
12		WSP 12		G 1		✓		✓		✓		✓		✓		✓			
13		WSP 13		G 1		✓		✓		✓		✓		✓		✓			
14		WSP 14		G 1		✓		✓		✓		✓		✓		✓			
15		WSP 15		G 1		✓		✓		✓		✓		✓		✓			
16		WSP 16		G 1		✓		✓		✓		✓		✓		✓			
17		WSP 17		G 1		✓		✓		✓		✓		✓		✓			
18		WSP 18		G 1		✓		✓		✓		✓		✓		✓			
19		WSP 19		G 1		✓		✓		✓		✓		✓		✓			
20		WSP 20		G 1		✓		✓		✓		✓		✓		✓			
21		WSP 21		G 1		✓		✓		✓		✓		✓		✓			
22		WSP 22		G 1		✓		✓		✓		✓		✓		✓			
23		WSP 23		G 1		✓		✓		✓		✓		✓		✓			
24		WSP 24		G 1		✓		✓		✓		✓		✓		✓			
25		WSP 25		G 1		✓		✓		✓		✓		✓		✓			
26		WSP 26		G 1		✓		✓		✓		✓		✓		✓			
27		WSP 27		G 1		✓		✓		✓		✓		✓		✓			
28		WSP 28		G 1		✓		✓		✓		✓		✓		✓			
29		WSP 29		G 1		✓		✓		✓		✓		✓		✓			
30		WSP 30		G 1		✓		✓		✓		✓		✓		✓			
31		WSP 31		G 1		✓		✓		✓		✓		✓		✓			
32		WSP 32		G 1		✓		✓		✓		✓		✓		✓			
33		WSP 33		G 1		✓		✓		✓		✓		✓		✓			
34		WSP 34		G 1		✓		✓		✓		✓		✓		✓			
35		WSP 35		G 1		✓		✓		✓		✓		✓		✓			
36		WSP 36		G 1		✓		✓		✓		✓		✓		✓			
37		WSP 37		G 1		✓		✓		✓		✓		✓		✓			
38		WSP 38		G 1		✓		✓		✓		✓		✓		✓			
39		WSP 39		G 1		✓		✓		✓		✓		✓		✓			
40		WSP 40		G 1		✓		✓		✓		✓		✓		✓			
41		WSP 41		G 1		✓		✓		✓		✓		✓		✓			
42		WSP 42		G 1		✓		✓		✓		✓		✓		✓			
43		WSP 43		G 1		✓		✓		✓		✓		✓		✓			
44		WSP 44		G 1		✓		✓		✓		✓		✓		✓			
45		WSP 45		G 1		✓		✓		✓		✓		✓		✓			
46		WSP 46		G 1		✓		✓		✓		✓		✓		✓			
47		WSP 47		G 1		✓		✓		✓		✓		✓		✓			
48		WSP 48		G 1		✓		✓		✓		✓		✓		✓			
49		WSP 49		G 1		✓		✓		✓		✓		✓		✓			
50		WSP 50		G 1		✓		✓		✓		✓		✓		✓			
51		WSP 51		G 1		✓		✓		✓		✓		✓		✓			
52		WSP 52		G 1		✓		✓		✓		✓		✓		✓			
53		WSP 53		G 1		✓		✓		✓		✓		✓		✓			
54		WSP 54		G 1		✓		✓		✓		✓		✓		✓			
55		WSP 55		G 1		✓		✓		✓		✓		✓		✓			
56		WSP 56		G 1		✓		✓		✓		✓		✓		✓			
57		WSP 57		G 1		✓		✓		✓		✓		✓		✓			
58		WSP 58		G 1		✓		✓		✓		✓		✓		✓			
59		WSP 59		G 1		✓		✓		✓		✓		✓		✓			
60		WSP 60		G 1		✓		✓		✓		✓		✓		✓			
61		WSP 61		G 1		✓		✓		✓		✓		✓		✓			
62		WSP 62		G 1		✓		✓		✓		✓		✓		✓			
63		WSP 63		G 1		✓		✓		✓		✓		✓		✓			
64		WSP 64		G 1		✓		✓		✓		✓		✓		✓			
65		WSP 65		G 1		✓		✓		✓		✓		✓		✓			
66		WSP 66		G 1		✓		✓		✓		✓		✓		✓			
67		WSP 67		G 1		✓		✓		✓		✓		✓		✓			
68		WSP 68		G 1		✓		✓		✓		✓		✓		✓			
69		WSP 69		G 1		✓		✓		✓		✓		✓		✓			
70		WSP 70		G 1		✓		✓		✓		✓		✓		✓			
71		WSP 71		G 1		✓		✓		✓		✓		✓		✓			
72		WSP 72		G 1		✓		✓		✓		✓		✓		✓			
73		WSP 73		G 1		✓		✓		✓		✓		✓		✓			
74		WSP 74		G 1		✓		✓		✓		✓		✓		✓			
75		WSP 75		G 1		✓		✓		✓		✓		✓		✓			
76		WSP 76		G 1		✓		✓		✓		✓		✓		✓			
77		WSP 77		G 1		✓		✓		✓		✓		✓		✓			
78		WSP 78		G 1		✓		✓		✓		✓		✓		✓			
79		WSP 79		G 1		✓		✓		✓		✓		✓		✓			
80		WSP 80		G 1		✓		✓		✓		✓		✓		✓			
81		WSP 81		G 1		✓		✓		✓		✓		✓		✓			
82		WSP 82		G 1		✓		✓		✓		✓		✓		✓			
83		WSP 83		G 1		✓		✓		✓		✓		✓		✓			
84		WSP 84		G 1		✓		✓		✓		✓		✓		✓			
85		WSP 85		G 1		✓		✓		✓		✓		✓		✓			
86		WSP 86		G 1		✓		✓		✓		✓		✓		✓			
87		WSP 87		G 1		✓		✓		✓		✓		✓		✓			
88		WSP 88		G 1		✓		✓		✓		✓		✓		✓			
89		WSP 89		G 1		✓		✓		✓		✓		✓		✓			
90		WSP 90		G 1		✓		✓		✓		✓		✓		✓			
91		WSP 91		G 1		✓		✓		✓		✓		✓		✓			
92		WSP 92		G 1		✓		✓		✓		✓		✓		✓			
93		WSP 93		G 1		✓		✓		✓		✓		✓		✓			
94		WSP 94		G 1		✓		✓		✓		✓		✓		✓			
95		WSP 95		G 1		✓		✓		✓		✓		✓		✓			
96		WSP 96		G 1		✓		✓		✓		✓		✓		✓			
97		WSP 97		G 1		✓		✓		✓		✓		✓		✓			
98		WSP 98		G 1		✓		✓		✓		✓		✓		✓			
99		WSP 99		G 1		✓		✓		✓		✓		✓		✓			
100		WSP 100		G 1		✓		✓		✓		✓		✓		✓			

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

+ Cardinal cannot accept verbal abuse. Please follow up.



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

July 06, 2018

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: HUMMINGBIRD FEDERAL #17H

Enclosed are the results of analyses for samples received by the laboratory on 07/05/18 16:49.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	07/05/2018	Sampling Date:	07/05/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: WSP 1 (H801834-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	07/06/2018	ND	432	108	400	3.64	

Sample ID: WSP 3 (H801834-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	07/06/2018	ND	432	108	400	3.64	

Sample ID: WSP 4 (H801834-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	07/06/2018	ND	432	108	400	3.64	

Sample ID: WSP 15 (H801834-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/06/2018	ND	432	108	400	3.64	

Cardinal Laboratories

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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:	07/05/2018	Sampling Date:	07/05/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: WSP 16 (H801834-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	560	16.0	07/06/2018	ND	432	108	400	3.64		

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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 "C. D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



ANALYSIS REQUEST

Released to Imaging: 12/15/2022 1:17:09 PM



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

July 12, 2018

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: HUMMINGBIRD FEDERAL #17H

Enclosed are the results of analyses for samples received by the laboratory on 07/11/18 15:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is 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:	07/11/2018	Sampling Date:	07/11/2018
Reported:	07/12/2018	Sampling Type:	Soil
Project Name:	HUMMINGBIRD FEDERAL #17H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: BOTTOM SP 5 @ 1' (H801891-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	07/12/2018	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

Notes and Definitions

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

Cardinal Laboratories

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

Celey D. Keene, Lab Director/Quality Manager



ANALYSIS REQUEST

(575) 20

Email Results

Photos



Photo of Excavation Facing South



Photo of Excavation Facing East



Photo of Excavation Facing North

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 167358

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 167358
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	12/15/2022